JUNOScript API Reference

Release 5.5

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About This Manual

This chapter provides a high-level overview of the *JUNOScript API Reference*:

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- Audience on page lxxii
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Objectives

This manual provides complete information about the tag elements in the JUNOScript application programming interface (API) that are used to configure or to request configuration and status information about a Juniper Networks router. The JUNOScript API is an Extensible Markup Language (XML) application that client applications use to exchange information with the JUNOScript server running on the router.

This manual documents all constructs in the JUNOScript API. To obtain additional information about the JUNOScript API—either corrections to information in this manual or information that might have been omitted from this manual—refer to the printed software release notes that accompany your router.

This manual is not provided in printed form or on the documentation CD-ROM. To obtain the most current version of this manual and the most current version of the software release notes, refer to the product documentation page on the Juniper Networks Web site, which is located at http://www.juniper.net/. To order printed copies of other Juniper Networks manuals or a documentation CD-ROM, please contact your sales representative.

Audience

This manual is designed for customers who want to write custom applications for router configuration or monitoring. It assumes that you are familiar with basic terminology and concepts of XML and of XML-parsing utilities such as the Document Object Model (DOM) or Simple API for XML (SAX).

Document Organization

This manual contains the following parts and chapters:

- Preface, “About This Manual” (this chapter), provides a brief description of the contents and organization of this manual and describes how to obtain customer support.
- Part 1, “Session Control, Operational Request, and Configuration API Reference,” describes the JUNOScript tags used to configure or request information from the JUNOScript server and the tags that the JUNOScript server sends in response.
  - Chapter 1, “Summary of Session Control Tags,” describes the tags that client applications and the JUNOScript server use to begin, end, and control the flow of the JUNOScript session.
  - Chapter 2, “Mapping between Operational Tags and CLI Commands,” provides tables that map each operational request tag supported in the current version of the JUNOScript API to the response tag returned by the JUNOScript server and to the corresponding JUNOS command-line interface (CLI) command.
  - Chapter 3, “Summary of Operational Request Tags,” describes the tags used by a client application to request operational information from the JUNOScript server.
  - Chapter 4, “Summary of Operational Response Tags,” describes the tags returned by the JUNOScript server in response to a client application’s request for operational information.
  - Chapter 5, “Summary of Configuration Tags,” describes the tags that represent router configuration.
- Part 2, “JUNOScript Document Type Definitions,” includes the document type definitions (DTDs) for tags that describe various router operations.
  - Chapter 6, “DTD for Session Control Response Tags,” contains the XML DTD called junos.dtd, which lists the session control tags returned by the JUNOScript server.
  - Chapter 7, “DTD for Accounting Response Tags,” contains the XML DTD called junos-accounting.dtd, which lists the tags returned by the JUNOScript server to describe accounting records.
  - Chapter 8, “DTD for Alarm Response Tags,” contains the XML DTD called junos-alarm.dtd, which lists the tags returned by the JUNOScript server to describe alarms.
  - Chapter 9, “DTD for Chassis Response Tags,” contains the XML DTD called junos-chassis.dtd, which lists the tags returned by the JUNOScript server to describe the router chassis.

- Chapter 10, “DTD for Class-of-Service Response Tags,” contains the XML DTD called junos-cos.dtd, which lists the tags returned by the JUNOScript server to describe class-of-service settings.
- Chapter 11, “DTD for Firewall Filter Response Tags,” contains the XML DTD called junos-filter.dtd, which lists the tags returned by the JUNOScript server to describe firewall filter information.
- Chapter 12, “DTD for Forwarding and Routing Table Response Tags,” contains the XML DTD called junos-rtinfo.dtd, which lists the tags returned by the JUNOScript server to describe forwarding table information.
- Chapter 13, “DTD for Interface Response Tags,” contains the XML DTD called junos-interface.dtd, which lists the tags returned by the JUNOScript server to describe router interfaces.
- Chapter 14, “DTD for IPSec Response Tags,” contains the XML DTD called junos-ipsec.dtd, which lists the tags returned by the JUNOScript server to describe IPSec information.
- Chapter 15, “DTD for IPv6 Neighbor Discovery Response Tags,” contains the XML DTD called junos-ipv6-nd.dtd, which lists the tags returned by the JUNOScript server to describe Internet Protocol Version 6 (IPv6) neighbor discovery.
- Chapter 16, “DTD for J20 GGSN Response Tags,” contains the XML DTD called junos-ggsn.dtd, which lists the tags returned by the JUNOScript server to describe J20 gateway GPRS support node (GGSN) information.
- Chapter 17, “DTD for Passive Monitoring Response Tags,” contains the XML DTD called junos-passive-monitoring.dtd, which lists the tags returned by the JUNOScript server to describe passive monitoring interfaces.
- Chapter 18, “DTD for Routing Protocols Response Tags,” contains the XML DTD called junos-routing.dtd, which lists the tags returned by the JUNOScript server to describe routing protocols.
- Chapter 19, “DTD for SNMP Response Tags,” contains the XML DTD called junos-snmp.dtd, which lists the tags returned by the JUNOScript server to describe Simple Network Management Protocol (SNMP) settings.
- Chapter 20, “DTD for System Process Information Response Tags,” contains the XML DTD called junos-process.dtd, which lists the tags returned by the JUNOScript server to describe system processes (the information returned by the show system processes CLI command).
- Chapter 21, “DTD for UDP Forwarding Helper Response Tags,” contains the XML DTD called junos-helper.dtd, which lists the tags returned by the JUNOScript server to describe output from the User Datagram Protocol (UDP) forwarding helper.

This manual also contains an index.

General Document Conventions

This document uses the following text conventions:

- Names of commands, files, and directories are shown in a sans serif font. The following example refers to the ssh command:

  The client application invokes the ssh command.

- Examples of command output and the contents of files or XML DTDs are shown in a fixed-width font when it is important to preserve column alignment, or in sans serif font otherwise. The following example using sans serif font is from the junos-chassis DTD:

  <!ELEMENT chassis-inventory (chassis?)>

- Options, which are variable terms for which you substitute appropriate values, are shown in italics. The following example refers to the variable called *identifier*:

  For *identifier*, substitute the name of this instance of the object.

- XML tags are shown in sans serif font and are surrounded by angle brackets, which is the standard XML notation for tags. The angle brackets do not indicate that an element is optional, as they do in syntax statements in the *JUNOS Internet Software Operational Mode Command Reference*. The following example refers to tags called <generation> and <local-index>:

  Notice that the JUNOScript server emits the <generation> tag before the <local-index> tag.

- If parts of a file or other example are omitted to highlight the remaining elements, the missing parts are represented by an ellipsis (…).

Conventions for Tag Summaries

The Usage section of the reference entries in this document uses the following text conventions:

- The tag described by the entry appears in bold font. Its parent and child tags appear in regular font. The string between the opening and closing parts of a tag element appears in italic font and describes the type of value represented by the tag.

  The following sample for the <admin-groups> tag illustrates the fonts used in an entry:

```
<configuration>
   <protocols>
      <mpls>
         <admin-groups>
            <name>name</name>     <!-- identifier -->
            <group-value>group-value</group-value>
         </admin-groups>
      </mpls>
   </protocols>
</configuration>
```

- An ellipsis (…) between a child tag's opening and closing tags indicates that the tag is itself a container tag. An entry for the child tag appears in alphabetical order in the chapter and lists all of its children.

  The following example indicates that there are separate entries for the <defaults> and <route> children of the <aggregate> tag:

  ```
  <aggregate>
    <defaults>...</defaults>
    <route>...</route>
  </aggregate>
  ```

- XML comments appear between the strings <!-- and -->, as in the following example:

  ```
  <name>value</name>      <!--identifier-->
  ```

- Some tags can be the child of more than one parent. If the immediate parents all occur at the same hierarchy level, the parent tag names appear in a single tag, separated by pipes (|). For example, the following indicates that the tag being described can be a child of both the <physical-interface> and <logical-interface> tags:

  ```
  <physical-interface | logical-interface>
  ```

  If the tag's parents occur at different levels of the hierarchy, there is a separate entry for each instance of the tag. To distinguish them, each entry's header specifies the statement path in parentheses following the tag name.

- Optional attributes appear in square brackets ([ ]). For example, the following indicates that the hostname and release attributes are optional but that the version attribute is required:

  ```
  <junoscript version="version" [hostname="hostname"] [release="release"]>
  ```

- If an attribute has multiple mutually exclusive values, they appear in a list enclosed in parentheses (( )) and separated by pipes (|). For example, the following indicates that the action attribute can have one of the values merge, override, or replace:

  ```
  action="( merge | override | replace )"
  ```

List of Technical Publications

Table 1 lists the software and hardware books for Juniper Networks routers and describes the contents of each book.

Table 1: Juniper Networks Technical Documentation

Book	Description
JUNOS Internet Software Configuration Guides	
Getting Started	Provides an overview of the JUNOS Internet software and describes how to install and upgrade the software. This manual also describes how to configure system management functions and how to configure the chassis, including user accounts, passwords, and redundancy.
Interfaces and Class of Service	Provides an overview of the interface and class-of-service functions of the JUNOS Internet software and describes how to configure the interfaces on the router.

Book	Description
IPv6	Provides an overview of IPv6 concepts such as addressing and packet header structure, and discusses the differences between IPv4 and IPv6. This manual also describes how to configure IPv6 on a router and discusses transition from IPv4 to IPv6.
MPLS Applications	Provides an overview of traffic engineering concepts and describes how to configure traffic engineering protocols.
Multicast	Provides an overview of multicast concepts and describes how to configure multicast routing protocols.
Network Management	Provides an overview of network management concepts and describes how to configure various network management features, such as SNMP, accounting options, and cflowd.
Policy Framework	Provides an overview of policy concepts and describes how to configure routing policy, firewall filters, and forwarding options.
Routing and Routing Protocols	Provides an overview of routing concepts and describes how to configure routing, routing instances, and unicast routing protocols.
VPNs	Provides an overview of Layer 2 and Layer 3 Virtual Private Networks (VPNs), describes how to configure VPNs, and provides configuration examples.
JUNOS Internet Software Reference	
Operational Mode Command Reference: Interfaces	Describes the JUNOS Internet software operational mode commands you use to monitor and troubleshoot Juniper Networks routers.
Operational Mode Command Reference: Protocols, Class of Service, Chassis, and Management	Describes the JUNOS Internet software operational mode commands you use to monitor and troubleshoot Juniper Networks routers.
System Log Messages Reference	Describes how to access and interpret system log messages generated by JUNOS software modules and provides a reference page for each message.
JUNOScript API Documentation	
JUNOScript API Guide	Describes how to use the JUNOScript API to monitor and configure Juniper Networks routers.
JUNOScript API Reference	Provides a reference page for each tag in the JUNOScript API.
JUNOS Internet Software Comprehensive Index	
Comprehensive Index	Provides a complete index of all JUNOS Internet software books and the *JUNOScript API Guide*.
Hardware Documentation	
Hardware Guide	Describes how to install, maintain, and troubleshoot routers and router components. Each router platform (M5 and M10 routers, M20 router, M40 router, M40e router, M160 router, and T640 routing node) has its own hardware guide
PIC Guide	Describes the router Physical Interface Cards (PICs). Each router platform has its own PIC guide.

Documentation Feedback

We are always interested in hearing from our customers. Please let us know what you like and do not like about the Juniper Networks documentation, and let us know of any suggestions you have for improving the documentation. Also, let us know if you find any mistakes in the documentation. Send your feedback to tech-doc@juniper.net.

How to Request Support

For technical support, contact Juniper Networks at support@juniper.net, or at 1-888-314-JTAC (within the United States) or 408-745-2121 (from outside the United States).

Part 1
Session Control, Operational Request, and Configuration API Reference

- Summary of Session Control Tags on page 3
- Mapping between Operational Tags and CLI Commands on page 23
- Summary of Operational Request Tags on page 31
- Summary of Operational Response Tags on page 81
- Summary of Configuration Tags on page 369

Chapter 1

Summary of Session Control Tags

This chapter lists the tag elements that client applications and the JUNOScript server use to control the JUNOScript session. The tag names are in alphabetical order. For information about the notational conventions used in this chapter, see “Conventions for Tag Summaries” on page lxxiv.

<abort/>

Usage

```
<rpc>
   <any-child-of-rpc>
      <abort/>
   </any-child-of-rpc>
</rpc>
```

Description

Direct the JUNOScript server to stop processing the request that is currently outstanding. The server responds by returning the <abort-acknowledgment/> tag, but might already have sent tagged data in response to the request. The client application must discard those tag elements.

See Also

<abort-acknowledgment/> on page 3, <rpc> on page 17

<abort-acknowledgment/>

Usage

```
<rpc-reply>
   <any-child-of-rpc-reply>
      <abort-acknowledgment/>
   </any-child-of-rpc-reply>
</rpc-reply>
```

Description

Indicate that the JUNOScript server has received the <abort/> tag and has stopped processing the current request. If the client application receives any tag elements related to the request between sending the <abort/> tag and receiving this tag, it must discard them.

See Also

<xnm:error> on page 19, <rpc-reply> on page 18

<authentication-response>

Usage

```
<rpc-reply>
  <authentication-response>
      <status>authentication-outcome</status>
      <message>message</message>
  </authentication-response>
</rpc-reply>
```

Description Indicate whether an authentication attempt succeeded. The JUNOScript server returns the tag element in response to the <request-login> tag element emitted by a client application that uses the clear-text or Secure Sockets Layer (SSL) access protocol.

Contents message—Names the JUNOS account under which a connection to the JUNOScript server is established, if authentication succeeds. If authentication fails, explains the reason for the failure.

status—Indicates whether the authentication attempt succeeded. There are two possible values:

- fail—The attempt failed. The JUNOScript server also emits the <challenge> tag element to request the password again, up to a maximum of three attempts.
- success—The attempt succeeded. An authenticated connection to the JUNOScript server is established.

See Also <challenge> on page 4, <request-login> on page 16, <rpc-reply> on page 18

<challenge>

Usage

```
<rpc-reply>
  <challenge echo="no">Password:</challenge>
</rpc-reply>
```

Description Request the password associated with a JUNOS account during authentication with a client application that uses the clear-text or SSL access protocol. The JUNOScript server emits this tag element when the initial <request-login> tag element emitted by the client application does not enclose a <challenge-response> tag element, and when the password enclosed in a <challenge-response> tag element is incorrect (in the latter case, the server also emits an <authentication-response> tag element enclosing child tag elements that indicate the password is incorrect).

The tag element encloses the string Password: which the client application can forward to the screen as a prompt for a user.

Attributes echo—Specifies whether the password string typed by the user echoes on the screen. The value no specifies that it does not.

See Also <authentication-response> on page 4, <request-login> on page 16, <rpc-reply> on page 18

<command>

Usage

<rpc>
  <command>*CLI-command-string***</command>**
</rpc>

Description

Request that the JUNOScript server run the indicated JUNOS command-line interface (CLI) command. Provide the same options to the CLI command as when issuing the command at the CLI prompt.

Use this tag element only if the JUNOScript application programming interface (API) does not define an operational request tag element that corresponds to the CLI command. The output returned by the JUNOScript server in response to this tag element might be less complete or accurate than the output returned for a supported operational request tag element. For a list of the available operational request tag elements, see "Mapping between Operational Tags and CLI Commands" on page 23.

See Also

<rpc> on page 17, "Mapping between Operational Tags and CLI Commands" on page 23

<commit-configuration>

Usage

```
<rpc>
  <commit-configuration/>

  <commit-configuration>
    <at-time>time-specification</at-time>
  </commit-configuration>

  <commit-configuration>
    <check/>
  </commit-configuration>

  <commit-configuration>
    <confirmed/>
    <confirm-timeout>rollback-delay</confirm-timeout>
  </commit-configuration>

  <commit-configuration>
    <synchronize/>
  </commit-configuration>

</rpc>
```

Description

Request that the JUNOScript server perform one of the following actions, depending on the tag element's contents:

- Commit the current candidate configuration, making it the active configuration on the router. Emit the empty <commit-configuration/> tag.

- Schedule the current candidate configuration for commit at a future time. Enclose the <at-time> tag element in the <commit-configuration> tag element. There are three valid types of time specifiers:

  - The string reboot, to commit the configuration the next time the router reboots.

  - A time value of the form *hh*:*mm*[:*ss*] (hours, minutes, and optionally seconds), to commit the configuration at the specified time, which must be in the future but before 11:59:59 PM on the day the <commit-configuration> tag element is emitted. Use 24-hour time for the *hh* value; for example, 04:30:00 means 4:30:00 AM and 20:00 means 8:00 PM. The time is interpreted with respect to the clock and time zone settings on the router.

  - A date and time value of the form *yyyy-mm-dd hh*:*mm*[:*ss*] (year, month, date, hours, minutes, and optionally seconds), to commit the configuration at the specified date and time, which must be after the <commit-configuration> tag element is emitted. Use 24-hour time for the *hh* value. For example, 2003-03-21 12:30:00 means 12:30 PM on August 21, 2003. The time is interpreted with respect to the clock and time zone settings on the router.

  The configuration is checked immediately for syntactic correctness. If the check succeeds, the configuration is scheduled for commit at the specified time. If the check fails, the commit operation is not scheduled.

- Verify the syntactic correctness of the current candidate configuration without actually committing it. Enclose the <check/> tag in the <commit-configuration> tag element.

- Commit the current candidate configuration but roll back to the previous configuration after a short time. Enclose the <confirmed/> tag in the <commit-configuration> tag element. By default, the rollback occurs after 10 minutes; to set a different rollback delay, also emit the optional <confirm-timeout> tag element.

  To delay the rollback again (past the original rollback deadline), emit the <confirmed/> tag (enclosed in the <commit-configuration> tag element) again before the deadline passes. Include the <confirm-timeout> tag element to specify how long to delay the next rollback, or omit that tag element to use the default of 10 minutes. The rollback can be delayed repeatedly in this way.

  To commit the configuration immediately and permanently after emitting the <confirmed/> tag, emit the empty <commit-configuration/> tag before the rollback deadline passes. The JUNOScript server commits the current candidate configuration and cancels the rollback. If the candidate configuration is still the same as the current committed configuration, this effectively recommits the current committed configuration.

- On a router with multiple Routing Engines, copy the candidate configuration stored on the local Routing Engine to the other Routing Engine, verify the candidate's syntactic correctness, and commit it on both Routing Engines. Enclose the <synchronize/> tag in the <commit-configuration> tag element.

Contents at-time—Schedules the commit operation for a specified future time.

check—Requests verification that the configuration is syntactically correct, but does not actually commit it.

confirmed—Requests a commit of the current candidate configuration and a rollback to the previous configuration after a short time, 10 minutes by default. Use the <confirm-timeout> tag element to specify a different amount of time.

confirm-timeout—Specifies the number of minutes for which the configuration remains active when the <confirmed/> tag is enclosed in the <commit-configuration> tag element.

synchronize—Requests that the candidate configuration on the local Routing Engine be copied to the other Routing Engine, checked for correct syntax, and committed on both Routing Engines.

See Also <commit-results> on page 8, <rpc> on page 17

<commit-results>

Usage

```
<rpc-reply>
  <commit-results>
    <routing-engine>...</routing-engine>
  </commit-results>
</rpc-reply>
```

Description Enclose tag elements that contain information about a commit operation performed by the JUNOScript server on a particular Routing Engine.

Contents routing-engine—Information about a commit operation performed on a particular Routing Engine.

See Also <commit-configuration> on page 6, <routing-engine> on page 17, <rpc-reply> on page 18

<configuration>

Usage

```
<!-- when emitted by a client application -->
<rpc>
  <load-configuration>
    <configuration>
      <!-- tag elements representing configuration objects to load -->
    </configuration>
  </load-configuration>
</rpc>

<!-- when emitted by the JUNOScript server -->
<rpc-reply>
  <configuration>
    <!-- tag elements representing objects in the current configuration -->
  </configuration>
</rpc-reply>
```

Description Enclose JUNOScript tag elements that represent one or more configuration objects.

See Also <rpc> on page 17, <rpc-reply> on page 18

<configuration-text>

Usage

```
<!-- when emitted by a client application -->
<rpc>
  <load-configuration format="text">
    <configuration-text>
      <!-- ASCII text representing configuration objects to load -->
    </configuration-text>
  </load-configuration>
</rpc>

<!-- when emitted by the JUNOScript server -->
<rpc-reply>
  <configuration-text>
    <!-- ASCII text representing objects in the current configuration -->
  </configuration-text>
</rpc-reply>
```

Description Enclose ASCII text that represents one or more configuration objects.

See Also <rpc> on page 17, <rpc-reply> on page 18

<end-session/>

Usage

```
<rpc-reply>
  <end-session/>
</rpc-reply>
```

Description Indicate that the JUNOScript server is about to end the current session for a reason other than an error. Most often, the reason is that the client application has sent the <request-end-session/> tag.

See Also <request-end-session/> on page 15, <rpc-reply> on page 18

<get-configuration>

Usage

```
<rpc>
  <get-configuration [database="(candidate|committed)"] [format="(text|xml)"]/>

  <get-configuration [database="(candidate|committed)"] [format="(text|xml)"]>
    <!-- tag elements representing hierarchy level or object to display -->
  </get-configuration>
</rpc>
```

Description Request configuration data from the JUNOScript server. The database and format attributes specify the source and formatting of the data to display. To display the entire hierarchy, emit the empty <get-configuration/> tag. To display one hierarchy level or a single configuration object, emit tag elements within the <get-configuration> tag element to represent all levels of the configuration hierarchy from the root (represented by the <configuration> tag element) down to the level or object to display. To represent the requested level, emit it as an empty tag. To represent the requested object, emit its container tag element and identifier tag element only, not any tag elements that represent other characteristics.

Attributes database—Specifies the configuration hierarchy from which to display data. There are two acceptable values:

- candidate—The current candidate configuration
- committed—The currently active (most recently committed) configuration on the router

format—Specifies the format in which the JUNOScript server returns the configuration data. There are two acceptable values:

- text—Configuration statements are formatted as ASCII text, using the newline character, tabs and other white space, braces, and square brackets to indicate the hierarchical relationships between the statements. This is the format used in configuration files stored on the router and displayed by the JUNOS CLI show configuration command.
- xml—Configuration statements are represented by the corresponding JUNOScript tag elements. This is the default value if the format attribute is omitted.

See Also <rpc> on page 17

<get-xnm-information>

Usage

```
<rpc>
  <get-xnm-information>
    <type>xml-schema</type>
    <namespace>junos-configuration</namespace>
  </get-xnm-information>
</rpc>
```

Description Request router configuration information represented as an Extensible Markup Language (XML) Schema. The JUNOScript server encloses the Schema in the <xsd:schema> tag element.

Contents namespace—Specifies the type of information for which to return an XML Schema. The only acceptable value is junos-configuration.

type—Specifies the format in which the JUNOScript server returns the configuration data. The only acceptable value is xml-schema.

See Also <rpc> on page 17

<junos:comment>

Usage

```
<rpc>
  <configuration>
    <!-- opening tags for one or more children of the <configuration> tag element -->
      <junos:comment>
        <!-- text of the comment-->
      </junos:comment>
      <!-- tag element representing configuration statement associated with the
              comment -->
    <!-- closing tags for one or more children of the <configuration> tag element -->
  </configuration>
</rpc>
```

Description

Enclose comment text to record with a configuration statement when the statement is added to the configuration database. The comment text string should not include any linebreak characters, but should include one of the two delimiters that indicate a comment in the configuration database: either the # character before the comment or the paired strings /* before the comment and */ after it.

The tag element that represents the configuration statement associated with the comment must appear directly after the closing </junos:comment> tag. If the associated tag element is omitted, the comment is not recorded in the configuration database.

See Also

<configuration> on page 8, <rpc> on page 17

<junoscript>

Usage

```
<!-- when emitted by a client application -->
<junoscript version="version" [hostname="hostname"] [release="release"]>
  <rpc>
    <!-- all tag elements generated by a client application -->
  </rpc>
</junoscript>

<!-- when emitted by the JUNOScript server -->
<junoscript version="version" hostname="hostname" os="os" release="release">
  xmlns="namespace-URL" xmlns:xnm="namespace-URL"
  xmlns:junos="namespace-URL"
  <rpc-reply>
    <!-- all tag elements generated by the JUNOScript server -->
  </rpc-reply>
</junoscript>
```

Description

Enclose all tag elements in a JUNOScript session (act as the root tag element for the session). The client application and JUNOScript server each emit this tag element, enclosing all other tag elements that they emit inside it.

Attributes

hostname—Names the machine on which the tag element's originator is running.

os—Specifies the operating system of the machine named by the hostname attribute.

release—Identifies the JUNOS release being run by the tag element's originator. JUNOS modules always set this attribute, but client applications do not have to.

version—(Required) Specifies the version of the JUNOScript API used for the enclosed set of tag elements.

xmlns—Names the XML namespace for the tag elements enclosed by the <junoscript> tag element that do not have a prefix on their names (that is, the default namespace for JUNOScript tag elements). The value is a URL of the form http://xml.juniper.net/xnm/*version-code*/xnm, where *version-code* is a string such as 1.1.

xmlns:junos—Names the XML namespace for the tag elements enclosed by the <junoscript> tag element that have the junos: prefix on their names. The value is a URL of the form http://xml.juniper.net/junos/*release-code*/junos, where *release-code* is the standard string that represents a release of the JUNOS software, such as 5.4R1 for the initial release of version 5.4.

xmlns:xnm—Names the XML namespace for the JUNOScript tag elements enclosed by the <junoscript> tag element that have the xnm: prefix on their names. The value is a URL of the form http://xml.juniper.net/xnm/*version-code*/xnm, where *version-code* is a string such as 1.1.

See Also

<rpc> on page 17, <rpc-reply> on page 18

<load-configuration>

Usage

```
<rpc>
  <load-configuration rollback="index" />

  <load-configuration url="url" [action="(merge|override|replace)"] \
                                                    [format="(text|xml)"] />

  <load-configuration format="text" [action="(merge|override|replace)"]>
    <configuration-text>
      <!-- formatted ASCII configuration statements to load -->
    </configuration-text>
  </load-configuration>

  <load-configuration [action="(merge|override|replace)"] [format="xml"]>
    <configuration>
      <!-- tag elements representing configuration statements to load -->
    </configuration>
  </load-configuration>
</rpc>
```

Description

Request that the JUNOScript server load configuration data into the current candidate configuration. Provide the data to load in one of three ways:

- Set the empty <load-configuration/> tag's rollback attribute to the numerical index of a previous configuration. The router stores a copy of the most recently committed configuration and up to nine previous configurations, so valid values for the index are 0 (zero, for the most recently committed configuration) through 9 (for the oldest possible stored configuration). The previous configuration completely replaces the current configuration.

- Set the empty <load-configuration/> tag's url attribute to the pathname of a file that resides on the router and contains the configuration data to load. The data can be either formatted ASCII (in which case the format attribute must be set to the value text) or JUNOScript tag elements (in which case the format attribute is either omitted or set to the value xml).

  In the following example, the url attribute identifies /tmp/add.conf as the file to load. (The omission of the format attribute indicates that the file contains JUNOScript tag elements.)

  ```
  <load-configuration url="/tmp/add.conf"/>
  ```

- Enclose the configuration data within an opening <load-configuration> and closing </load-configuration> tag. If providing the configuration data as formatted ASCII, enclose it in a <configuration-text> tag element and set the format attribute to the value text. If providing configuration data as JUNOScript tag elements, enclose it in a <configuration> tag element and optionally set the format attribute to the value xml.

Attributes action—Specifies how to load the configuration data, particularly when the current candidate contains conflicting statements. There are three acceptable values:

- merge—Combines the data in the loaded configuration with the current candidate configuration. If statements in the loaded configuration conflict with statements in the current candidate configuration, the loaded statements replace the current ones. This is the default behavior if the action attribute is omitted.

- override—Discards the entire current candidate configuration and replaces it with the loaded configuration.

- replace—Substitutes each hierarchy level or configuration object defined in the loaded configuration for the corresponding level or object in the current configuration.

  If providing the configuration data as formatted ASCII (either in the file named by the url attribute or enclosed in a <configuration-text> tag element), also place the replace: statement on the line directly preceding the statements that represent the hierarchy level or object to replace. For more information, see the section about loading a configuration in the *JUNOS Internet Software Configuration Guide: Getting Started*.

  If providing the configuration data as JUNOScript tag elements, also set the replace attribute to the value replace on the opening tag of the container tag element that represents the hierarchy level or object to replace.

format—Specifies the format used for the configuration data. There are two acceptable values:

- text—Indicates that configuration statements are formatted as ASCII text, using the newline character, tabs and other white space, braces, and square brackets to indicate the hierarchical relationships between the statements. This is the format used in configuration files stored on the router and displayed by the JUNOS CLI show configuration command.

- xml—Indicates that configuration statements are represented by the corresponding JUNOScript tag elements. This is the default value if the format attribute is omitted.

rollback—Specifies the numerical index of the previous configuration to load. Valid values for the index are 0 (zero, for the most recently committed configuration) through 9 (for the oldest possible stored configuration).

url—Specifies the full pathname of the file that contains the configuration data to load. The file must reside on the router's local disk.

See Also <configuration> on page 8, <configuration-text> on page 9, <rpc> on page 17

<lock-configuration>

Usage

```
<rpc>
   <lock-configuration/>

   <lock-configuration>
      <rollback>automatic</rollback>
   </lock-configuration>
</rpc>
```

Description Request that the JUNOScript server open and lock the current candidate configuration, enabling the client application both to read and change it, but preventing any other users or applications from changing it. The application must emit the <unlock-configuration/> tag to unlock the configuration.

To specify that any uncommitted changes are discarded from the candidate configuration if the JUNOScript session ends before the client application commits the configuration, set the value of the <rollback> tag element to automatic and enclose the <rollback> tag element in the <lock-configuration> tag element.

See Also <rpc> on page 17, <unlock-configuration/> on page 19

<output>

Usage

```
<rpc-reply>
   <output>response</output>
</rpc-reply>
```

Description Contain a response to a client application request when the current version of the JUNOScript API does not define a specific tag element for the response. The format of the contents is subject to change, so the client application must not rely on a particular format.

See Also <rpc-reply> on page 18

<request-end-session/>

Usage

```
<rpc>
   <request-end-session/>
</rpc>
```

Description Request that the JUNOScript server end the current session.

See Also <end-session/> on page 9, <rpc> on page 17

<request-login>

Usage

```
<rpc>
  <request-login>
      <username>JUNOS-account</username>
      <challenge-response>password</challenge-response>
  </request-login>
</rpc>
```

Description Request authentication by the JUNOScript server when using the clear-text or SSL access protocol.

Emitting both the <username> and <challenge-response> tag elements is appropriate if the client application automates access to router information and does not interact with users, or obtains the password from a user before beginning the authentication process.

Emitting only the <username> tag element is appropriate if the application does not obtain the password until the authentication process has already begun. In this case, the JUNOScript server returns the <challenge> tag element to request the password associated with the account.

Contents

challenge-response—Specifies the password for the JUNOS account named in the <username> tag element. Omit this tag element to have the JUNOScript server emit the <challenge> tag element to request the password.

username—Names the JUNOS account under which to authenticate with the JUNOScript server. The account must already be configured on the router where the JUNOScript server is running.

See Also <challenge> on page 4, <rpc> on page 17

<routing-engine>

Usage

```
<rpc-reply>
  <commit-results>

<!-- to indicate successful commit of the candidate configuration -->
    <routing-engine>
      <name>reX</name>
      <commit-success/>
    </routing-engine>

<!-- to indicate that candidate configuration is syntactically valid -->
    <routing-engine>
      <name>reX</name>
      <commit-check-success/>
    </routing-engine>

  </commit-results>
</rpc-reply>
```

Description Enclose tag elements indicating that the JUNOScript server successfully fulfilled a commit request.

Contents commit-check-success—Indicates that the candidate configuration is syntactically correct.

commit-success—Indicates that the JUNOScript server successfully committed the candidate configuration.

name—Name of the Routing Engine on which the commit operation was performed. Possible values are re0 and re1.

See Also <commit-results> on page 8, <rpc-reply> on page 18

<rpc>

Usage

```
<junoscript>
  <rpc>
    <!-- all other tag elements generated by a client application -->
  </rpc>
</junoscript>
```

Description Enclose all tag elements generated by a client application.

See Also <junoscript> on page 12, <rpc-reply> on page 18

<rpc-reply>

Usage

```
<junoscript>
  <rpc-reply xmlns:junos="namespace-URL">
    <!-- all tag elements generated by the JUNOScript server -->
  </rpc-reply>
</junoscript>
```

Description Enclose all tag elements generated by the JUNOScript server. The immediate child tag element is usually one of the following:

- The specific tag element used to enclose data generated by the module in response to a client application's request.
- The <output> tag element, if the JUNOScript API does not define a specific tag element for the type of information in the response.

Attributes xmlns:junos—Names the XML namespace for the JUNOScript tag elements enclosed by the <rpc-reply> tag element that have the junos: prefix on their names. The value is a URL of the form http://xml.juniper.net/junos/*release-code*/junos, where *release-code* is the standard string that represents a release of the JUNOS Internet software, such as 5.3R1 for the initial release of version 5.3.

See Also <junoscript> on page 12, <output> on page 15, <rpc> on page 17

<undocumented>

Usage

```
<rpc-reply>
  <undocumented>
    <!-- tag element representing unsupported configuration element -->
  </undocumented>
</rpc-reply>
```

Description Enclose a tag element representing a configuration element (hierarchy level or object) that is not documented in the JUNOS software configuration guides or officially supported by Juniper Networks. The reason that the element is undocumented is usually one of the following:

- It is used for debugging purposes only by Juniper Networks personnel.
- It is no longer supported or has been moved to another area of the configuration hierarchy, but appears in the current location for backward compatibility.

See Also <rpc-reply> on page 18

<unlock-configuration/>

Usage

```
<rpc>
  <unlock-configuration/>
</rpc>
```

Description Request that the JUNOScript server unlock and close the current candidate configuration. Until the application emits this tag, other users or applications can read the configuration but cannot change it.

See Also <lock-configuration> on page 15, <rpc> on page 17

<xnm:error>

Usage

```
<junoscript>
  <any-child-of-junoscript>
    <xnm:error xmlns="namespace-URL" xmlns:xnm="namespace-URL">
      <parse/>
      <source-daemon>module-name</source-daemon>
      <filename>filename</filename>
      <line-number>line-number</line-number>
      <column>column-number</column>
      <token>input-token-id</token>
      <message>error-string</message>
      <edit-path>edit-path-name</edit-path>
    </xnm:error>
  </any-child-of-junoscript>
</junoscript>
```

Description Indicate that the JUNOScript server has experienced an error while processing the client application's request. If the server has already emitted the response tag element for the current request, the information enclosed in the response tag element might be incomplete. The client application must include code that discards or retains the information, as appropriate. The child tag elements described in the Contents section detail the nature of the error. The JUNOScript server does not necessarily emit all child tag elements; it omits tag elements not relevant to the current request.

Attributes

xmlns—Names the XML namespace for the contents of the tag element. The value is a URL of the form http://xml.juniper.net/xnm/*version*/xnm, where *version* is a string such as 1.1.

xmlns:xnm—Names the XML namespace for child tag elements that have the xnm: prefix on their names. The value is a URL of the form http://xml.juniper.net/xnm/*version*/xnm, where *version* is a string such as 1.1.

Contents <column>—Identifies the element that caused the error by specifying its position as the number of characters after the first character in one of the following:

- The JUNOS CLI command string enclosed in a <command> tag element sent by the client application and currently being processed
- The line specified by the <line-number> tag element in the configuration file that was being loaded (which is named in the <filename> tag element)

<edit-path>—Specifies the JUNOS CLI configuration-mode edit path in effect when the error occurred (provided only during loading of a configuration file).

<filename>—Names the configuration file that was being loaded.

<line-number>—Specifies the line number where the error occurred in the configuration file that was being loaded, which is named by the <filename> tag element.

<message>—Describes the error in a natural-language text string.

<parse/>—Indicates that there was a syntactic error in the request submitted by the client application.

<source-daemon>—Names the JUNOS module that was processing the request in which the error occurred.

<token>—Names the element in the request that caused the error.

See Also <junoscript> on page 12, <xnm:warning> on page 20

<xnm:warning>

Usage

```
<junoscript>
  <any-child-of-junoscript>
    <xnm:warning xmlns="namespace-URL" xmlns:xnm="namespace-URL">
      <source-daemon>module-name</source-daemon>
      <filename>filename</filename>
      <line-number>line-number</line-number>
      <column>column-number</column>
      <token>input-token-id</token>
      <message>error-string</message>
    </xnm:warning>
  </any-child-of-junoscript>
</junoscript>
```

Description Indicate that the server has encountered a problem while processing the client application's request. The child tag elements described in the Contents section detail the nature of the warning.

Attributes xmlns—Names the XML namespace for the contents of the tag element. The value is a URL of the form http://xml.juniper.net/xnm/*version*/xnm, where *version* is a string such as 1.1.

xmlns:xnm—Names the XML namespace for child tag elements that have the xnm: prefix on their names. The value is a URL of the form http://xml.juniper.net/xnm/*version*/xnm, where *version* is a string such as 1.1.

Contents <column>—Identifies the element that caused the error by specifying its position as the number of characters after the first character in one of the following:

- The JUNOS CLI command string enclosed in a <command> tag element sent by the client application and currently being processed
- The line specified by the <line-number> tag element in the configuration file that was being loaded (which is named in the <filename> tag element)

<filename>—Names the configuration file that was being loaded.

<line-number>—Specifies the line number where the error occurred in the configuration file that was being loaded, which is named by the <filename> tag element.

<message>—Describes the warning in a natural-language text string.

<source-daemon>—Names the JUNOS module that was processing the request in which the warning occurred.

<token>—The name of the element in the request that caused the warning

See Also <xnm:error> on page 19, <junoscript> on page 12

Chapter 2

Mapping between Operational Tags and CLI Commands

Table 2 maps the operational request tags supported in the current version of the JUNOScript application programming interface (API) to the response tag returned by the JUNOScript server and to the corresponding JUNOS command-line interface (CLI) command.

For a list of mappings organized alphabetically by CLI command name, see Table 3 on page 27. For more information about each request tag, see "Summary of Operational Request Tags" on page 31. For more information about response tags, see "Summary of Operational Response Tags" on page 81. For more information about CLI commands, see the *JUNOS Internet Software Operational Mode Command Reference.*

Table 2: Mapping of JUNOScript Operational Tags to CLI Commands

Request Tag	Response Tag	CLI Command
<clear-helper-statistics-information>	NONE	clear helper statistics
<clear-ipv6-nd-information>	<ipv6-modify-nd>	clear ipv6 neighbors
<file-compare>	NONE	file compare
<file-copy>	NONE	file copy
<file-delete>	NONE	file delete
<file-list>	NONE	file list
<file-rename>	NONE	file rename
<file-show>	NONE	file show
<get-accounting-profile-information>	<accounting-profile-information>	show accounting
<get-accounting-record-information>	<accounting-record-information>	show accounting records
<get-alarm-information>	<alarm-information>	show chassis alarms
<get-bgp-group-information>	<bgp-group-information>	show bgp group
<get-bgp-neighbor-information>	<bgp-information>	show bgp neighbor
<get-bgp-summary-information>	<bgp-information>	show bgp summary
<get-chassis-inventory>	<chassis-inventory>	show chassis hardware
<get-cos-classifier-information>	<cos-classifier-information>	show class-of-service classifier
<get-cos-classifier-table-information>	<cos-classifier-table-information>	show class-of-service forwarding-table classifier
<get-cos-classifier-table-map-information>	<cos-classifier-table-map-information>	show class-of-service forwarding-table classifier mapping
<get-cos-code-point-map-information>	<cos-code-point-map-information>	show class-of-service code-point-aliases
<get-cos-drop-profile-information>	<cos-drop-profile-information>	show class-of-service drop-profile
<get-cos-fabric-scheduler-map-information>	<cos-fabric-scheduler-map-information>	show class-of-service fabric scheduler-map
<get-cos-forwarding-class-information>	<cos-forwarding-class-information>	show class-of-service forwarding-class

Request Tag	Response Tag	CLI Command
<get-cos-fwtab-fabric-scheduler-map-information>	<cos-fwtab-fabric-scheduler-map-information>	show class-of-service forwarding-table fabric scheduler-map
<get-cos-information>	<cos-information>	show class-of-service
<get-cos-interface-map-information>	<cos-interface-information>	show class-of-service interface
<get-cos-policer-table-map-information>	<cos-policer-table-map-information>	show class-of-service forwarding-table policer
<get-cos-red-information>	<cos-red-information>	show class-of-service forwarding-table drop-profile
<get-cos-rewrite-information>	<cos-rewrite-information>	show class-of-service rewrite-rule
<get-cos-rewrite-table-information>	<cos-rewrite-table-information>	show class-of-service forwarding-table rewrite-rule
<get-cos-rewrite-table-map-information>	<cos-rewrite-table-map-information>	show class-of-service forwarding-table rewrite-rule mapping
<get-cos-scheduler-map-information>	<cos-scheduler-map-information>	show class-of-service scheduler-map
<get-cos-scheduler-map-table-information>	<cos-scheduler-map-table-information>	show class-of-service forwarding-table scheduler-map
<get-cos-shaper-table-map-information>	<cos-shaper-table-map-information>	show class-of-service forwarding-table shaper
<get-cos-table-information>	<cos-table-information>	show class-of-service forwarding-table
<get-destination-class-statistics>	<destination-class-statistics>	show interfaces destination-class
<get-environment-information>	<environment-information>	show chassis environment
<get-fabric-queue-information>	<fabric-queue-information>	show class-of-service fabric statistics
<get-feb-information>	<scb-information>	show chassis feb
<get-firewall-information>	<firewall-information>	show firewall
<get-firewall-log-information>	<firewall-log-information>	show firewall log
<get-firmware-information>	<firmware-information>	show chassis firmware
<get-forwarding-table-information>	<forwarding-table-information>	show route forwarding-table
<get-fpc-information>	<fpc-information>	show chassis fpc
<get-ggsn-apn-statistics-information>	<apn-statistics-information>	show services ggsn statistics apn
<get-ggsn-gtp-prime-statistics-information>	<gtp-prime-statistics-information>	show services ggsn statistics gtp-prime
<get-ggsn-gtp-statistics-information>	<gtp-statistics-information>	show services ggsn statistics gtp
<get-ggsn-imsi-trace>	<call-trace-information>	show services ggsn trace imsi
<get-ggsn-imsi-user-information>	<mobile-user-information>	show services ggsn statistics imsi
<get-ggsn-interface-information>	<ggsn-interface-information>	show services ggsn status
<get-ggsn-msisdn-trace>	<call-trace-information>	show services ggsn trace msisdn
<get-ggsn-sgsn-statistics-information>	<sgsn-statistics-information>	show services ggsn statistics sgsn
<get-ggsn-statistics>	<ggsn-statistics>	show services ggsn statistics
<get-ggsn-trace>	<call-trace-information>	show services ggsn trace all
<get-helper-statistics-information>	<helper-statistics-information>	show helper statistics
<get-ike-security-associations-information>	<ike-security-associations-information>	show ike security-associations
<get-instance-information>	<instance-information>	show route instance
<get-interface-filter-information>	<interface-filter-information>	show interfaces filters
<get-interface-information>	<interface-information>	show interfaces
<get-interface-policer-information>	<interface-policer-information>	show interfaces policers
<get-interface-queue-information>	<interface-information>	show interfaces queue
<get-ipv6-nd-information>	<ipv6-nd-information>	show ipv6 neighbors
<get-ipv6-ra-information>	<ipv6-ra-information>	show ipv6 router-advertisement
<get-isis-adjacency-information>	<isis-adjacency-information>	show isis adjacency
<get-isis-database-information>	<isis-database-information>	show isis database

Request Tag	Response Tag	CLI Command
<get-isis-hostname-information>	<isis-hostname-information>	show isis hostname
<get-isis-interface-information>	<isis-interface-information>	show isis interface
<get-isis-route-information>	<isis-route-information>	show isis route
<get-isis-spf-information>	<isis-spf-information>	show isis spf
<get-isis-statistics-information>	<isis-statistics-information>	show isis statistics
<get-l2ckt-connection-information>	<l2ckt-connection-information>	show l2circuit connections
<get-l2vpn-connection-information>	<l2vpn-connection-information>	show l2vpn connections
<get-ldp-database-information>	<ldp-database-information>	show ldp database
<get-ldp-interface-information>	<ldp-interface-information>	show ldp interface
<get-ldp-neighbor-information>	<ldp-neighbor-information>	show ldp neighbor
<get-ldp-path-information>	<ldp-path-information>	show ldp path
<get-ldp-route-information>	<ldp-route-information>	show ldp route
<get-ldp-session-information>	<ldp-session-information>	show ldp session
<get-ldp-statistics-information>	<ldp-statistics-information>	show ldp statistics
<get-ldp-traffic-statistics-information>	<ldp-traffic-statistics-information>	show ldp traffic-statistics
<get-lm-information>	<lm-information>	show link-management
<get-lm-peer-information>	<lm-peer-information>	show link-management peer
<get-lm-routing-information>	<lm-information>	show link-management routing
<get-lm-routing-peer-information>	<lm-peer-information>	show link-management routing peer
<get-lm-routing-te-link-information>	<lm-te-link-information>	show link-management routing te-link
<get-lm-te-link-information>	<lm-te-link-information>	show link-management te-link
<get-logging-service-client-history-information>	<logging-service-history-information>	show services logging history client
<get-logging-service-files-information>	<logging-service-files-information>	show services logging logfiles
<get-logging-service-history-information>	<logging-service-history-information>	show services logging history
<get-mpls-admin-group-information>	<mpls-admin-group-information>	show mpls admin-groups
<get-mpls-cspf-information>	<mpls-cspf-information>	show mpls cspf
<get-mpls-interface-information>	<mpls-interface-information>	show mpls interface
<get-mpls-lsp-information>	<mpls-lsp-information>	show mpls lsp
<get-mpls-path-information>	<mpls-path-information>	show mpls path
<get-ospf-database-information>	<ospf-database-information>	show ospf database
<get-ospf-interface-information>	<ospf-interface-information>	show ospf interface
<get-ospf-io-statistics-information>	<ospf-io-statistics-information>	show ospf io-statistics
<get-ospf-log-information>	<ospf-log-information>	show ospf log
<get-ospf-neighbor-information>	<ospf-neighbor-information>	show ospf neighbor
<get-ospf-route-information>	<ospf-route-information>	show ospf route
<get-ospf-statistics-information>	<ospf-statistics-information>	show ospf statistics
<get-ospf3-database-information>	<ospf3-database-information>	show ospf3 database
<get-ospf3-interface-information>	<ospf3-interface-information>	show ospf3 interface
<get-ospf3-io-statistics-information>	<ospf3-io-statistics-information>	show ospf3 io-statistics
<get-ospf3-log-information>	<ospf3-log-information>	show ospf3 log
<get-ospf3-neighbor-information>	<ospf3-neighbor-information>	show ospf3 neighbor
<get-ospf3-route-information>	<ospf3-route-information>	show ospf3 route
<get-ospf3-statistics-information>	<ospf3-statistics-information>	show ospf3 statistics

Request Tag	Response Tag	CLI Command
<get-passive-monitoring-error-information>	<passive-monitoring-error-information>	show passive-monitoring error
<get-passive-monitoring-flow-information>	<passive-monitoring-flow-information>	show passive-monitoring flow
<get-passive-monitoring-information>	<passive-monitoring-information>	show passive-monitoring
<get-passive-monitoring-memory-information>	<passive-monitoring-memory-information>	show passive-monitoring memory
<get-passive-monitoring-status-information>	<passive-monitoring-status-information>	show passive-monitoring status
<get-passive-monitoring-usage-information>	<passive-monitoring-usage-information>	show passive-monitoring usage
<get-pic-detail>	<pic-information>	show chassis pic
<get-pic-information>	<fpc-information>	show chassis fpc pic-status
<get-rmon-alarm-information>	<rmon-alarm-information>	show snmp rmon alarms
<get-rmon-event-information>	<rmon-event-information>	show snmp rmon events
<get-rmon-information>	<rmon-information>	show snmp rmon
<get-route-engine-information>	<route-engine-information>	show chassis routing-engine
<get-route-information>	<route-information>	show route
<get-route-summary-information>	<route-summary-information>	show route summary
<get-rsvp-interface-information>	<rsvp-interface-information>	show rsvp interface
<get-rsvp-neighbor-information>	<rsvp-neighbor-information>	show rsvp neighbor
<get-rsvp-session-information>	<rsvp-session-information>	show rsvp session
<get-rsvp-statistics-information>	<rsvp-statistics-information>	show rsvp statistics
<get-rsvp-version-information>	<rsvp-version-information>	show rsvp version
<get-rtexport-instance-information>	<rtexport-instance-information>	show route export instance
<get-rtexport-table-information>	<rtexport-table-information>	show route export
<get-rtexport-target-information>	<rtexport-target-information>	show route export vrf-target
<get-scb-information>	<scb-information>	show chassis scb
<get-security-associations-information>	<security-associations-information>	show ipsec security-associations
<get-sfm-information>	<scb-information>	show chassis sfm
<get-snmp-information>	<snmp-statistics>	show snmp statistics
<get-source-class-statistics>	<source-class-statistics>	show interfaces source-class
<get-spmb-information>	<spmb-information>	show chassis spmb
<get-spmb-sib-information>	<spmb-sib-information>	show chassis spmb sibs
<get-ssb-information>	<scb-information>	show chassis ssb
<get-syslog-tag-information>	<syslog-tag-information>	help syslog
<get-system-uptime-information>	<system-uptime-information>	show system uptime
<get-system-users-information>	<system-users-information>	show system users
<get-ted-database-information>	<ted-database-information>	show ted database
<get-ted-link-information>	<ted-link-information>	show ted link
<get-ted-protocol-information>	<ted-protocol-information>	show ted protocol
<request-ggsn-restart-interface>	<interface-action-results>	request services ggsn restart interface
<request-ggsn-restart-node>	<node-action-results>	request services ggsn restart node
<request-ggsn-start-imsi-trace>	NONE	request services ggsn trace start imsi
<request-ggsn-start-interface>	NONE	request services ggsn start interface
<request-ggsn-start-msisdn-trace>	NONE	request services ggsn trace start msisdn
<request-ggsn-stop-imsi-trace>	NONE	request services ggsn trace stop imsi
<request-ggsn-stop-interface>	<interface-action-results>	request services ggsn stop interface

Request Tag	Response Tag	CLI Command
<request-ggsn-stop-msisdn-trace>	NONE	request services ggsn trace stop msisdn
<request-ggsn-stop-node>	NONE	request services ggsn stop node
<request-ggsn-stop-trace-activity>	NONE	request services ggsn trace stop all
<request-ggsn-terminate-context>	<pdp-context-deletion-results>	request services ggsn pdp terminate context
<request-ggsn-terminate-contexts-apn>	<apn-pdp-context-deletion-results>	request services ggsn pdp terminate apn
<request-halt>	NONE	request system halt
<request-package-add>	NONE	request system software add
<request-package-delete>	NONE	request system software delete
<request-package-validate>	NONE	request system software validate
<request-reboot>	NONE	request system reboot

Table 3 maps JUNOS CLI commands to operational request and response tags.

Table 3: Mapping of CLI Commands to JUNOScript Operational Tags

CLI Command	Request Tag	Response Tag
clear helper statistics	<clear-helper-statistics-information>	NONE
clear ipv6 neighbors	<clear-ipv6-nd-information>	<ipv6-modify-nd>
help syslog	<get-syslog-tag-information>	<syslog-tag-information>
request services ggsn pdp terminate apn	<request-ggsn-terminate-contexts-apn>	<apn-pdp-context-deletion-results>
request services ggsn pdp terminate context	<request-ggsn-terminate-context>	<pdp-context-deletion-results>
request services ggsn restart interface	<request-ggsn-restart-interface>	<interface-action-results>
request services ggsn restart node	<request-ggsn-restart-node>	<node-action-results>
request services ggsn start interface	<request-ggsn-start-interface>	NONE
request services ggsn stop interface	<request-ggsn-stop-interface>	<interface-action-results>
request services ggsn stop node	<request-ggsn-stop-node>	NONE
request services ggsn trace start imsi	<request-ggsn-start-imsi-trace>	NONE
request services ggsn trace start msisdn	<request-ggsn-start-msisdn-trace>	NONE
request services ggsn trace stop all	<request-ggsn-stop-trace-activity>	NONE
request services ggsn trace stop imsi	<request-ggsn-stop-imsi-trace>	NONE
request services ggsn trace stop msisdn	<request-ggsn-stop-msisdn-trace>	NONE
request system halt	<request-halt>	NONE
request system reboot	<request-reboot>	NONE
request system software add	<request-package-add>	NONE
request system software delete	<request-package-delete>	NONE
request system software validate	<request-package-validate>	NONE
show accounting	<get-accounting-profile-information>	<accounting-profile-information>
show accounting records	<get-accounting-record-information>	<accounting-record-information>
show bgp group	<get-bgp-group-information>	<bgp-group-information>
show bgp neighbor	<get-bgp-neighbor-information>	<bgp-information>
show bgp summary	<get-bgp-summary-information>	<bgp-information>
show chassis alarms	<get-alarm-information>	<alarm-information>
show chassis environment	<get-environment-information>	<environment-information>

CLI Command	Request Tag	Response Tag
show chassis feb	<get-feb-information>	<scb-information>
show chassis firmware	<get-firmware-information>	<firmware-information>
show chassis fpc	<get-fpc-information>	<fpc-information>
show chassis fpc pic-status	<get-pic-information>	<fpc-information>
show chassis hardware	<get-chassis-inventory>	<chassis-inventory>
show chassis pic	<get-pic-detail>	<pic-information>
show chassis routing-engine	<get-route-engine-information>	<route-engine-information>
show chassis scb	<get-scb-information>	<scb-information>
show chassis sfm	<get-sfm-information>	<scb-information>
show chassis spmb	<get-spmb-information>	<spmb-information>
show chassis spmb sibs	<get-spmb-sib-information>	<spmb-sib-information>
show chassis ssb	<get-ssb-information>	<scb-information>
show class-of-service	<get-cos-information>	<cos-information>
show class-of-service classifier	<get-cos-classifier-information>	<cos-classifier-information>
show class-of-service code-point-aliases	<get-cos-code-point-map-information>	<cos-code-point-map-information>
show class-of-service drop-profile	<get-cos-drop-profile-information>	<cos-drop-profile-information>
show class-of-service fabric scheduler-map	<get-cos-fabric-scheduler-map-information>	<cos-fabric-scheduler-map-information>
show class-of-service fabric statistics	<get-fabric-queue-information>	<fabric-queue-information>
show class-of-service forwarding-class	<get-cos-forwarding-class-information>	<cos-forwarding-class-information>
show class-of-service forwarding-table	<get-cos-table-information>	<cos-table-information>
show class-of-service forwarding-table classifier	<get-cos-classifier-table-information>	<cos-classifier-table-information>
show class-of-service forwarding-table classifier mapping	<get-cos-classifier-table-map-information>	<cos-classifier-table-map-information>
show class-of-service forwarding-table drop-profile	<get-cos-red-information>	<cos-red-information>
show class-of-service forwarding-table fabric scheduler-map	<get-cos-fwtab-fabric-scheduler-map-information>	<cos-fwtab-fabric-scheduler-map-information>
show class-of-service forwarding-table policer	<get-cos-policer-table-map-information>	<cos-policer-table-map-information>
show class-of-service forwarding-table rewrite-rule	<get-cos-rewrite-table-information>	<cos-rewrite-table-information>
show class-of-service forwarding-table rewrite-rule mapping	<get-cos-rewrite-table-map-information>	<cos-rewrite-table-map-information>
show class-of-service forwarding-table scheduler-map	<get-cos-scheduler-map-table-information>	<cos-scheduler-map-table-information>
show class-of-service forwarding-table shaper	<get-cos-shaper-table-map-information>	<cos-shaper-table-map-information>
show class-of-service interface	<get-cos-interface-map-information>	<cos-interface-information>
show class-of-service rewrite-rule	<get-cos-rewrite-information>	<cos-rewrite-information>
show class-of-service scheduler-map	<get-cos-scheduler-map-information>	<cos-scheduler-map-information>
show firewall	<get-firewall-information>	<firewall-information>
show firewall log	<get-firewall-log-information>	<firewall-log-information>
show helper statistics	<get-helper-statistics-information>	<helper-statistics-information>
show ike security-associations	<get-ike-security-associations-information>	<ike-security-associations-information>
show interfaces	<get-interface-information>	<interface-information>
show interfaces destination-class	<get-destination-class-statistics>	<destination-class-statistics>
show interfaces filters	<get-interface-filter-information>	<interface-filter-information>
show interfaces policers	<get-interface-policer-information>	<interface-policer-information>
show interfaces queue	<get-interface-queue-information>	<interface-information>

CLI Command	Request Tag	Response Tag
show interfaces source-class	<get-source-class-statistics>	<source-class-statistics>
show ipsec security-associations	<get-security-associations-information>	<security-associations-information>
show ipv6 neighbors	<get-ipv6-nd-information>	<ipv6-nd-information>
show ipv6 router-advertisement	<get-ipv6-ra-information>	<ipv6-ra-information>
show isis adjacency	<get-isis-adjacency-information>	<isis-adjacency-information>
show isis database	<get-isis-database-information>	<isis-database-information>
show isis hostname	<get-isis-hostname-information>	<isis-hostname-information>
show isis interface	<get-isis-interface-information>	<isis-interface-information>
show isis route	<get-isis-route-information>	<isis-route-information>
show isis spf	<get-isis-spf-information>	<isis-spf-information>
show isis statistics	<get-isis-statistics-information>	<isis-statistics-information>
show l2circuit connections	<get-l2ckt-connection-information>	<l2ckt-connection-information>
show l2vpn connections	<get-l2vpn-connection-information>	<l2vpn-connection-information>
show ldp database	<get-ldp-database-information>	<ldp-database-information>
show ldp interface	<get-ldp-interface-information>	<ldp-interface-information>
show ldp neighbor	<get-ldp-neighbor-information>	<ldp-neighbor-information>
show ldp path	<get-ldp-path-information>	<ldp-path-information>
show ldp route	<get-ldp-route-information>	<ldp-route-information>
show ldp session	<get-ldp-session-information>	<ldp-session-information>
show ldp statistics	<get-ldp-statistics-information>	<ldp-statistics-information>
show ldp traffic-statistics	<get-ldp-traffic-statistics-information>	<ldp-traffic-statistics-information>
show link-management	<get-lm-information>	<lm-information>
show link-management peer	<get-lm-peer-information>	<lm-peer-information>
show link-management routing	<get-lm-routing-information>	<lm-information>
show link-management routing peer	<get-lm-routing-peer-information>	<lm-peer-information>
show link-management routing te-link	<get-lm-routing-te-link-information>	<lm-te-link-information>
show link-management te-link	<get-lm-te-link-information>	<lm-te-link-information>
show mpls admin-groups	<get-mpls-admin-group-information>	<mpls-admin-group-information>
show mpls cspf	<get-mpls-cspf-information>	<mpls-cspf-information>
show mpls interface	<get-mpls-interface-information>	<mpls-interface-information>
show mpls lsp	<get-mpls-lsp-information>	<mpls-lsp-information>
show mpls path	<get-mpls-path-information>	<mpls-path-information>
show ospf database	<get-ospf-database-information>	<ospf-database-information>
show ospf interface	<get-ospf-interface-information>	<ospf-interface-information>
show ospf io-statistics	<get-ospf-io-statistics-information>	<ospf-io-statistics-information>
show ospf log	<get-ospf-log-information>	<ospf-log-information>
show ospf neighbor	<get-ospf-neighbor-information>	<ospf-neighbor-information>
show ospf route	<get-ospf-route-information>	<ospf-route-information>
show ospf statistics	<get-ospf-statistics-information>	<ospf-statistics-information>
show ospf3 database	<get-ospf3-database-information>	<ospf3-database-information>
show ospf3 interface	<get-ospf3-interface-information>	<ospf3-interface-information>
show ospf3 io-statistics	<get-ospf3-io-statistics-information>	<ospf3-io-statistics-information>
show ospf3 log	<get-ospf3-log-information>	<ospf3-log-information>

CLI Command	Request Tag	Response Tag
show ospf3 neighbor	<get-ospf3-neighbor-information>	<ospf3-neighbor-information>
show ospf3 route	<get-ospf3-route-information>	<ospf3-route-information>
show ospf3 statistics	<get-ospf3-statistics-information>	<ospf3-statistics-information>
show passive-monitoring	<get-passive-monitoring-information>	<passive-monitoring-information>
show passive-monitoring error	<get-passive-monitoring-error-information>	<passive-monitoring-error-information>
show passive-monitoring flow	<get-passive-monitoring-flow-information>	<passive-monitoring-flow-information>
show passive-monitoring memory	<get-passive-monitoring-memory-information>	<passive-monitoring-memory-information>
show passive-monitoring status	<get-passive-monitoring-status-information>	<passive-monitoring-status-information>
show passive-monitoring usage	<get-passive-monitoring-usage-information>	<passive-monitoring-usage-information>
show route	<get-route-information>	<route-information>
show route export	<get-rtexport-table-information>	<rtexport-table-information>
show route export instance	<get-rtexport-instance-information>	<rtexport-instance-information>
show route export vrf-target	<get-rtexport-target-information>	<rtexport-target-information>
show route forwarding-table	<get-forwarding-table-information>	<forwarding-table-information>
show route instance	<get-instance-information>	<instance-information>
show route summary	<get-route-summary-information>	<route-summary-information>
show rsvp interface	<get-rsvp-interface-information>	<rsvp-interface-information>
show rsvp neighbor	<get-rsvp-neighbor-information>	<rsvp-neighbor-information>
show rsvp session	<get-rsvp-session-information>	<rsvp-session-information>
show rsvp statistics	<get-rsvp-statistics-information>	<rsvp-statistics-information>
show rsvp version	<get-rsvp-version-information>	<rsvp-version-information>
show services ggsn statistics	<get-ggsn-statistics>	<ggsn-statistics>
show services ggsn statistics apn	<get-ggsn-apn-statistics-information>	<apn-statistics-information>
show services ggsn statistics gtp	<get-ggsn-gtp-statistics-information>	<gtp-statistics-information>
show services ggsn statistics gtp-prime	<get-ggsn-gtp-prime-statistics-information>	<gtp-prime-statistics-information>
show services ggsn statistics imsi	<get-ggsn-imsi-user-information>	<mobile-user-information>
show services ggsn statistics sgsn	<get-ggsn-sgsn-statistics-information>	<sgsn-statistics-information>
show services ggsn status	<get-ggsn-interface-information>	<ggsn-interface-information>
show services ggsn trace all	<get-ggsn-trace>	<call-trace-information>
show services ggsn trace imsi	<get-ggsn-imsi-trace>	<call-trace-information>
show services ggsn trace msisdn	<get-ggsn-msisdn-trace>	<call-trace-information>
show services logging history	<get-logging-service-history-information>	<logging-service-history-information>
show services logging history client	<get-logging-service-client-history-information>	<logging-service-history-information>
show services logging logfiles	<get-logging-service-files-information>	<logging-service-files-information>
show snmp rmon	<get-rmon-information>	<rmon-information>
show snmp rmon alarms	<get-rmon-alarm-information>	<rmon-alarm-information>
show snmp rmon events	<get-rmon-event-information>	<rmon-event-information>
show snmp statistics	<get-snmp-information>	<snmp-statistics>
show system uptime	<get-system-uptime-information>	<system-uptime-information>
show system users	<get-system-users-information>	<system-users-information>
show ted database	<get-ted-database-information>	<ted-database-information>
show ted link	<get-ted-link-information>	<ted-link-information>
show ted protocol	<get-ted-protocol-information>	<ted-protocol-information>

Chapter 3
Summary of Operational Request Tags

This chapter lists the tags used by a client application to request operational information from the JUNOScript server. The tag names are in alphabetical order. For information about the notation used in this chapter, see “Conventions for Tag Summaries” on page lxxiv.

<clear-helper-statistics-information>

Usage

```
<rpc>
   <clear-helper-statistics-information />
</rpc>
```

Description Clear helper statistics.

<clear-ipv6-nd-information>

Usage

```
<rpc>
   <clear-ipv6-nd-information>
      <host>host</host>
   </clear-ipv6-nd-information>
</rpc>
```

Description Clear IPv6 neighbor cache information.

Contents <host>—Individual neighbor to clear.

<file-compare>

Usage

```
<rpc>
  <file-compare>
    <context/>
    <unified/>
    <ignore-white-space/>
    <from-file>from-file</from-file>
    <to-file>to-file</to-file>
  </file-compare>
</rpc>
```

Description Compare files (local).

Contents <context>—Context style output format.

<from-file>—No documentation is available yet.

<ignore-white-space>—Ignore changes in amount of white space.

<to-file>—No documentation is available yet.

<unified>—Unified style output format.

<file-copy>

Usage

```
<rpc>
  <file-copy>
    <source>source</source>
    <destination>destination</destination>
  </file-copy>
</rpc>
```

Description Copy files (local or remote).

Contents <destination>—No documentation is available yet.

<source>—No documentation is available yet.

<file-delete>

Usage

```
<rpc>
  <file-delete>
    <path>path</path>     <!-- mandatory -->
  </file-delete>
</rpc>
```

Description Delete files from the system (local).

Contents <path>—Path to list.

<file-list>

Usage

```
<rpc>
  <file-list>
    <detail/>
    <recursive/>
    <path>path</path>
  </file-list>
</rpc>
```

Description List file information (local).

Contents <detail>—Detail file information.

<path>—Path to list.

<recursive>—Recursive descent through directory hierarchy.

<file-rename>

Usage

```
<rpc>
  <file-rename>
    <source>source</source>
    <destination>destination</destination>
  </file-rename>
</rpc>
```

Description Rename files (local).

Contents <destination>—No documentation is available yet.

<source>—No documentation is available yet.

<file-show>

Usage

```
<rpc>
  <file-show>
    <filename>filename</filename>     <!-- mandatory -->
  </file-show>
</rpc>
```

Description Display file contents (local).

Contents <filename>—Filename to display.

<get-accounting-profile-information>

Usage

```
<rpc>
  <get-accounting-profile-information>
    <profile>profile</profile>
  </get-accounting-profile-information>
</rpc>
```

Description Show accounting profiles and records.

Contents <profile>—Show accounting profile information.

<get-accounting-record-information>

Usage

```
<rpc>
  <get-accounting-record-information>
    <profile>profile</profile>     <!-- mandatory -->
    <since>since</since>
    <utc_timestamp/>
  </get-accounting-record-information>
</rpc>
```

Description Show accounting records.

Contents <profile>—Profile name.

<since>—Statistics since the specified time.

<utc_timestamp>—Display timestamp in UTC format.

<get-alarm-information>

Usage

```
<rpc>
  <get-alarm-information/>
</rpc>
```

Description Show alarm status.

<get-bgp-group-information>

Usage

```
<rpc>
  <get-bgp-group-information>
    <summary/>
    <brief/>
    <detail/>
    <instance>instance</instance>
    <group-name>group-name</group-name>
  </get-bgp-group-information>
</rpc>
```

Description Show the BGP group database.

Contents <brief>—Show brief view.

<detail>—Show detail view.

<group-name>—Show group information for a particular group.

<instance>—Show peer information for a particular instance.

<summary>—Show summary view.

<get-bgp-neighbor-information>

Usage

```
<rpc>
  <get-bgp-neighbor-information>
    <instance>instance</instance>
    <neighbor-address>neighbor-address</neighbor-address>
  </get-bgp-neighbor-information>
</rpc>
```

Description Show the BGP neighbor database.

Contents <instance>—Show peer information for a particular instance.

<neighbor-address>—Show neighbor database for a particular neighbor.

<get-bgp-summary-information>

Usage

```
<rpc>
  <get-bgp-summary-information>
    <instance>instance</instance>
  </get-bgp-summary-information>
</rpc>
```

Description Show an overview of the BGP information.

Contents <instance>—Show peer information for a particular instance.

<get-chassis-inventory>

Usage

```
<rpc>
  <get-chassis-inventory>
    <detail/>
    <extensive/>
  </get-chassis-inventory>
</rpc>
```

Description Show hardware inventory information.

Contents <detail>—Include RAM modules in output.

<extensive>—Display data from ID EEPROM for every item.

<get-cos-classifier-information>

Usage

```
<rpc>
  <get-cos-classifier-information>
    <name>name</name>
    <type>type-choice</type>
  </get-cos-classifier-information>
</rpc>
```

Description Mapping of code point to forwarding class/loss priority.

Contents <name>—Name of classifier.

<type>—Type of classifier.

- dscp—Differentiated Services (DiffServ) code point (DSCP).
- exp—MPLS EXP code point.
- ieee-802.1—IEEE-802.1 code point.
- inet-precedence—IPv4 precedence code point.

<get-cos-classifier-table-information>

Usage

```
<rpc>
  <get-cos-classifier-table-information />
</rpc>
```

Description Show classifier information.

<get-cos-classifier-table-map-information>

Usage

```
<rpc>
  <get-cos-classifier-table-map-information />
</rpc>
```

Description Get table mapping.

<get-cos-code-point-map-information>

Usage

```
<rpc>
  <get-cos-code-point-map-information>
    <dscp />
    <exp />
    <ieee-802.1 />
    <inet-precedence />
  </get-cos-code-point-map-information>
</rpc>
```

Description Mapping of symbolic name to code point bit pattern.

Contents <dscp>—Differentiated Services (DiffServ) code point (DSCP).

<exp>—MPLS EXP code point.

<ieee-802.1>—IEEE-802.1 code point.

<inet-precedence>—IPv4 precedence code point.

<get-cos-drop-profile-information>

Usage

```
<rpc>
   <get-cos-drop-profile-information>
      <profile-name>profile-name</profile-name>
   </get-cos-drop-profile-information>
</rpc>
```

Description Interpolated data points of named drop profile.

Contents <profile-name>—Name of drop profile.

<get-cos-fabric-scheduler-map-information>

Usage

```
<rpc>
   <get-cos-fabric-scheduler-map-information/>
</rpc>
```

Description Show fabric scheduler map information.

<get-cos-forwarding-class-information>

Usage

```
<rpc>
   <get-cos-forwarding-class-information/>
</rpc>
```

Description Mapping of forwarding class names to queue numbers.

<get-cos-fwtab-fabric-scheduler-map-information>

Usage

```
<rpc>
   <get-cos-fwtab-fabric-scheduler-map-information/>
</rpc>
```

Description Show fabric scheduler map.

<get-cos-information>

Usage

```
<rpc>
   <get-cos-information/>
</rpc>
```

Description Show information about class of service.

<get-cos-interface-map-information>

Usage

```
<rpc>
  <get-cos-interface-map-information>
    <interface-name>interface-name</interface-name>
  </get-cos-interface-map-information>
</rpc>
```

Description Mapping of class-of-service objects to interfaces.

Contents <interface-name>—Name of interface.

<get-cos-policer-table-map-information>

Usage

```
<rpc>
  <get-cos-policer-table-map-information />
</rpc>
```

Description Show policer.

<get-cos-red-information>

Usage

```
<rpc>
  <get-cos-red-information />
</rpc>
```

Description Show RED drop profile.

<get-cos-rewrite-information>

Usage

```
<rpc>
  <get-cos-rewrite-information>
    <name>name</name>
    <type>type-choice</type>
  </get-cos-rewrite-information>
</rpc>
```

Description Mapping of forwarding class/loss priority to code point.

Contents <name>—Name of rewrite rule.

<type>—Type of rewrite rule.

- dscp—Differentiated Services (DiffServ) code point (DSCP).
- exp—MPLS EXP code point.
- ieee-802.1—IEEE-802.1 code point.
- inet-precedence—IPv4 precedence code point.

<get-cos-rewrite-table-information>

Usage

```
<rpc>
  <get-cos-rewrite-table-information /> 
</rpc>
```

Description Show rewrite information.

<get-cos-rewrite-table-map-information>

Usage

```
<rpc>
  <get-cos-rewrite-table-map-information /> 
</rpc>
```

Description Get table mapping.

<get-cos-scheduler-map-information>

Usage

```
<rpc>
  <get-cos-scheduler-map-information>
    <name>name</name>
  </ get-cos-scheduler-map-information>
</rpc>
```

Description Mapping of forwarding classes to schedulers.

Contents <name>—Name of scheduler map.

<get-cos-scheduler-map-table-information>

Usage

```
<rpc>
  <get-cos-scheduler-map-table-information /> 
</rpc>
```

Description Show scheduler map.

<get-cos-shaper-table-map-information>

Usage

```
<rpc>
  <get-cos-shaper-table-map-information /> 
</rpc>
```

Description Show shaper.

<get-cos-table-information>

Usage

```
<rpc>
  <get-cos-table-information /> 
</rpc>
```

Description Show forwarding table information.

<get-destination-class-statistics>

Usage

```
<rpc>
  <get-destination-class-statistics>
    <class-name>class-name</class-name>     <!-- mandatory -->
    <interface-name>interface-name</interface-name>     <!-- mandatory -->
  </get-destination-class-statistics>
</rpc>
```

Description Display statistics for a specific destination class.

Contents <class-name>—No documentation is available yet.

<interface-name>—No documentation is available yet.

<get-environment-information>

Usage

```
<rpc>
  <get-environment-information/>
</rpc>
```

Description Show environmental status.

<get-fabric-queue-information>

Usage

```
<rpc>
  <get-fabric-queue-information>
    <destination>destination</destination>
    <source>source</source>
    <summary/>
  </get-fabric-queue-information>
</rpc>
```

Description Show fabric queue statistics.

Contents <destination>—Destination FPC for which to show details.

<source>—Source FPC for which to show details.

<summary>—Show summarized value.

<get-feb-information>

Usage

```
<rpc>
  <get-feb-information/>
</rpc>
```

Description Show Forwarding Engine Board (FEB) status.

<get-firewall-information>

Usage

```
<rpc>
  <get-firewall-information>
    <filter>filter</filter>
  </get-firewall-information>
</rpc>
```

Description Show firewall information.

Contents <filter>—Filter name.

<get-firewall-log-information>

Usage

```
<rpc>
  <get-firewall-log-information>
    <get-firewall-log-detailed-information/>
    <interface>interface</interface>
  </get-firewall-log-information>
</rpc>
```

Description Show log entries for firewall activity.

Contents <get-firewall-log-detailed-information>—Show detail view.

<interface>—Interface name.

<get-firmware-information>

Usage

```
<rpc>
  <get-firmware-information/>
</rpc>
```

Description Show firmware version information.

<get-forwarding-table-information>

Usage

```
<rpc>
  <get-forwarding-table-information>
    <detail/>
    <extensive/>
    <multicast/>
    <family>family</family>
    <vpn>vpn</vpn>
    <summary/>
    <matching>matching</matching>
    <destination>destination</destination>
  </get-forwarding-table-information>
</rpc>
```

Description Entries in all forwarding tables.

Contents <destination>—Show route used for destination prefix.

<detail>—Display all routes.

<extensive>—Show detailed information about routes.

<family>—Show route table entries this family.

<matching>—Show route table entries matching prefix/len.

<multicast>—Show multicast routes.

<summary>—Show the number of routes only.

<vpn>—Show route table entries for named VPN.

<get-fpc-information>

Usage

```
<rpc>
   <get-fpc-information/>
</rpc>
```

Description Show Flexible PIC Concentrator (FPC) status.

<get-ggsn-apn-statistics-information>

Usage

```
<rpc>
   <get-ggsn-apn-statistics-information>
      <apn-name>apn-name</apn-name>
   </get-ggsn-apn-statistics-information>
</rpc>
```

Description Show statistics for an APN.

Contents <apn-name>—Name of APN to display.

<get-ggsn-gtp-prime-statistics-information>

Usage

```
<rpc>
   <get-ggsn-gtp-prime-statistics-information/>
</rpc>
```

Description Show GTP Prime statistics information.

<get-ggsn-gtp-statistics-information>

Usage

```
<rpc>
   <get-ggsn-gtp-statistics-information/>
</rpc>
```

Description Show GTP statistics information.

<get-ggsn-imsi-trace>

Usage

```
<rpc>
  <get-ggsn-imsi-trace>
    <imsi-identifier>imsi-identifier</imsi-identifier>     <!-- mandatory -->
  </get-ggsn-imsi-trace>
</rpc>
```

Description Show trace information by IMSI.

Contents <imsi-identifier>—IMSI identifier.

<get-ggsn-imsi-user-information>

Usage

```
<rpc>
  <get-ggsn-imsi-user-information>
    <imsi-identifier>imsi-identifier</imsi-identifier>     <!-- mandatory -->
  </get-ggsn-imsi-user-information>
</rpc>
```

Description Show statistics for an IMSI.

Contents <imsi-identifier>—IMSI identifier.

<get-ggsn-interface-information>

Usage

```
<rpc>
  <get-ggsn-interface-information/>
</rpc>
```

Description Show GGSN operational status information.

<get-ggsn-msisdn-trace>

Usage

```
<rpc>
  <get-ggsn-msisdn-trace>
    <msisdn-identifier>msisdn-identifier</msisdn-identifier>     <!-- mandatory -->
  </get-ggsn-msisdn-trace>
</rpc>
```

Description Show trace information by MSISDN.

Contents <msisdn-identifier>—MSISDN identifier.

<get-ggsn-sgsn-statistics-information>

Usage

```
<rpc>
  <get-ggsn-sgsn-statistics-information>
    <address>address</address>
  </get-ggsn-sgsn-statistics-information>
</rpc>
```

Description Show statistics for a client SGSN.

Contents <address>—SGSN address.

<get-ggsn-statistics>

Usage

```
<rpc>
  <get-ggsn-statistics/>
</rpc>
```

Description Show GGSN statistics.

<get-ggsn-trace>

Usage

```
<rpc>
  <get-ggsn-trace/>
</rpc>
```

Description Show all trace information.

<get-helper-statistics-information>

Usage

```
<rpc>
  <get-helper-statistics-information/>
</rpc>
```

Description Show helper statistics.

<get-ike-security-associations-information>

Usage

```
<rpc>
  <get-ike-security-associations-information>
    <brief/>
    <detail/>
    <peer-address>peer-address</peer-address>
  </get-ike-security-associations-information>
</rpc>
```

Description Show IKE security association information.

Contents <brief>—Display brief information.

<detail>—Display detailed information.

<peer-address>—Name of security association.

<get-instance-information>

Usage

```
<rpc>
  <get-instance-information>
    <summary/>
    <brief/>
    <detail/>
    <name>name</name>
  </get-instance-information>
</rpc>
```

Description Show information about routing instances.

Contents <brief>—Show brief view.

<detail>—Show detail view.

<name>—Particular instance name.

<summary>—Show summary view.

<get-interface-filter-information>

Usage

```
<rpc>
  <get-interface-filter-information>
    <interface-name>interface-name</interface-name>
  </get-interface-filter-information>
</rpc>
```

Description Display interface filters information.

Contents <interface-name>—Physical or logical interface.

<get-interface-information>

Usage

```
<rpc>
  <get-interface-information>
    <extensive/>
    <statistics/>
    <media/>
    <detail/>
    <terse/>
    <brief/>
    <descriptions/>
    <snmp-index>snmp-index</snmp-index>
    <interface-name>interface-name</interface-name>
  </get-interface-information>
</rpc>
```

Description Show interface information.

Contents <brief>—Display brief interface information.

<descriptions>—Show interface description strings.

<detail>—Display detailed information.

<extensive>—Display extensive information.

<interface-name>—Physical or logical interface.

<media>—Display media information.

<snmp-index>—Show interface with this SNMP index.

<statistics>—Display statistics and detailed information.

<terse>—Display summary information.

<get-interface-policer-information>

Usage

```
<rpc>
  <get-interface-policer-information>
    <interface-name>interface-name</interface-name>
  </get-interface-policer-information>
</rpc>
```

Description Display interface policers information.

Contents <interface-name>—Physical or logical interface.

<get-interface-queue-information>

Usage

```
<rpc>
  <get-interface-queue-information>
    <forwarding-class>forwarding-class</forwarding-class>
    <interface-name>interface-name</interface-name>
  </get-interface-queue-information>
</rpc>
```

Description Show queue statistics for this interface.

Contents <forwarding-class>—Show queue statistics for this forwarding class.

<interface-name>—Physical interface.

<get-ipv6-nd-information>

Usage

```
<rpc>
  <get-ipv6-nd-information/>
</rpc>
```

Description IPv6 neighbor cache information.

<get-ipv6-ra-information>

Usage

```
<rpc>
  <get-ipv6-ra-information>
    <interface>interface</interface>
    <conflicts/>
    <prefix>prefix</prefix>
  </get-ipv6-ra-information>
</rpc>
```

Description Show information about IPv6 router advertisement.

Contents <conflicts>—Show conflicting information.

<interface>—Show router advertisement information for an interface.

<prefix>—Show router advertisement information for a prefix.

<get-isis-adjacency-information>

Usage

```
<rpc>
  <get-isis-adjacency-information>
    <brief/>
    <detail/>
    <extensive/>
    <instance>instance</instance>
    <system-id>system-id</system-id>
  </get-isis-adjacency-information>
</rpc>
```

Description Show the IS-IS adjacency database.

Contents <brief>—Show brief status.

<detail>—Show detailed status.

<extensive>—Show extensive status.

<instance>—Particular IS-IS instance.

<system-id>—System ID.

<get-isis-database-information>

Usage

```
<rpc>
  <get-isis-database-information>
    <brief/>
    <detail/>
    <extensive/>
    <instance>instance</instance>
    <level>level</level>
    <system-id>system-id</system-id>
  </get-isis-database-information>
</rpc>
```

Description Show the IS-IS link-state database.

Contents <brief>—Show brief status.

<detail>—Show detailed status.

<extensive>—Show extensive status.

<instance>—Particular IS-IS instance.

<level>—Specific IS-IS level.

<system-id>—System ID.

<get-isis-hostname-information>

Usage

```
<rpc>
  <get-isis-hostname-information/>
</rpc>
```

Description Show IS-IS hostname database.

<get-isis-interface-information>

Usage

```
<rpc>
  <get-isis-interface-information>
    <brief/>
    <detail/>
    <extensive/>
    <instance>instance</instance>
    <interface-name>interface-name</interface-name>
  </get-isis-interface-information>
</rpc>
```

Description Show IS-IS interface information.

Contents <brief>—Show brief status.

<detail>—Show detailed status.

<extensive>—Show extensive status.

<instance>—Particular IS-IS instance.

<interface-name>—Interface name.

<get-isis-route-information>

Usage

```
<rpc>
  <get-isis-route-information>
    <instance>instance</instance>
    <topology>topology-choice</topology>
  </get-isis-route-information>
</rpc>
```

Description Show the IS-IS routing table.

Contents <instance>—Particular IS-IS instance.

<topology>—Routes learned from a specific topology.

- multicast—Multicast topology.
- unicast—Unicast topology.

<get-isis-spf-information>

Usage

```
<rpc>
  <get-isis-spf-information />
</rpc>
```

Description Show information about IS-IS SPF calculations.

<get-isis-statistics-information>

Usage

```
<rpc>
  <get-isis-statistics-information>
    <instance>instance</instance>
  </get-isis-statistics-information>
</rpc>
```

Description Show IS-IS performance statistics.

Contents <instance>—Particular IS-IS instance.

<get-l2ckt-connection-information>

Usage

```
<rpc>
  <get-l2ckt-connection-information>
    <neighbor>neighbor</neighbor>
    <interface>interface</interface>
    <down/>
    <up/>
    <up-down/>
    <brief/>
    <extensive/>
    <history/>
    <status/>
  </get-l2ckt-connection-information>
</rpc>
```

Description Show the Layer 2 circuit connections.

Contents <brief>—Connection status (one line).

<down>—Connections that are not operational.

<extensive>—Connection status and history.

<history>—Connection history.

<interface>—Interface name.

<neighbor>—Neighbor's IP address.

<status>—Connection and interface status (default).

<up>—Connections that are operational.

<up-down>—Both operational and nonoperational connections.

<get-l2vpn-connection-information>

Usage

```
<rpc>
  <get-l2vpn-connection-information>
    <instance>instance</instance>
    <local-site>local-site</local-site>
    <remote-site>remote-site</remote-site>
    <down/>
    <up/>
    <up-down/>
    <brief/>
    <extensive/>
    <history/>
    <status/>
  </get-l2vpn-connection-information>
</rpc>
```

Description Show the Layer 2 VPN connections.

Contents <brief>—Connection status (one line).

<down>—Connections that are not operational.

<extensive>—Connection status and history.

<history>—Connection history.

<instance>—Layer 2 VPN instance name.

<local-site>—Layer 2 VPN local-site name or ID.

<remote-site>—Layer 2 VPN local-site name or ID.

<status>—Connection and circuit status (default).

<up>—Connections that are operational.

<up-down>—Both operational and nonoperational connections.

<get-ldp-database-information>

Usage

```
<rpc>
  <get-ldp-database-information>
    <brief/>
    <detail/>
    <extensive/>
    <instance>instance</instance>
  </get-ldp-database-information>
</rpc>
```

Description Show LDP label database.

Contents <brief>—Show brief status.

<detail>—Show detailed status.

<extensive>—Show extensive status.

<instance>—Particular LDP instance.

<get-ldp-interface-information>

Usage

```
<rpc>
  <get-ldp-interface-information>
    <brief/>
    <detail/>
    <extensive/>
    <instance>instance</instance>
  </get-ldp-interface-information>
</rpc>
```

Description Show LDP interface status.

Contents <brief>—Show brief status.

<detail>—Show detailed status.

<extensive>—Show extensive status.

<instance>—Particular LDP instance.

<get-ldp-neighbor-information>

Usage

```
<rpc>
  <get-ldp-neighbor-information>
    <brief/>
    <detail/>
    <extensive/>
    <instance>instance</instance>
  </get-ldp-neighbor-information>
</rpc>
```

Description Show LDP neighbor status.

Contents <brief>—Show brief status.

<detail>—Show detailed status.

<extensive>—Show extensive status.

<instance>—Particular LDP instance.

<get-ldp-path-information>

Usage

```
<rpc>
  <get-ldp-path-information>
    <brief/>
    <detail/>
    <extensive/>
    <instance>instance</instance>
  </get-ldp-path-information>
</rpc>
```

Description Show LDP path table.

Contents <brief>—Show brief status.

<detail>—Show detailed status.

<extensive>—Show extensive status.

<instance>—Particular LDP instance.

<get-ldp-route-information>

Usage

```
<rpc>
  <get-ldp-route-information>
    <brief/>
    <detail/>
    <extensive/>
    <instance>instance</instance>
  </get-ldp-route-information>
</rpc>
```

Description Show LDP route table.

Contents <brief>—Show brief status.

<detail>—Show detailed status.

<extensive>—Show extensive status.

<instance>—Particular LDP instance.

<get-ldp-session-information>

Usage

```
<rpc>
  <get-ldp-session-information>
    <brief/>
    <detail/>
    <extensive/>
    <instance>instance</instance>
  </get-ldp-session-information>
</rpc>
```

Description Show LDP session status.

Contents <brief>—Show brief status.

<detail>—Show detailed status.

<extensive>—Show extensive status.

<instance>—Particular LDP instance.

<get-ldp-statistics-information>

Usage

```
<rpc>
  <get-ldp-statistics-information>
    <instance>instance</instance>
  </get-ldp-statistics-information>
</rpc>
```

Description Show LDP statistics.

Contents <instance>—Particular LDP instance.

<get-ldp-traffic-statistics-information>

Usage

```
<rpc>
  <get-ldp-traffic-statistics-information>
    <instance>instance</instance>
  </get-ldp-traffic-statistics-information>
</rpc>
```

Description Packet statistics for LDP label-switched paths.

Contents <instance>—Particular LDP instance.

<get-lm-information>

Usage

```
<rpc>
  <get-lm-information />
</rpc>
```

Description Show information about link management.

<get-lm-peer-information>

Usage

```
<rpc>
  <get-lm-peer-information>
    <name>name</name>
  </get-lm-peer-information>
</rpc>
```

Description Peers.

Contents <name>—Name of peer.

<get-lm-routing-information>

Usage

```
<rpc>
  <get-lm-routing-information />
</rpc>
```

Description Show information about link management for routing.

<get-lm-routing-peer-information>

Usage

```
<rpc>
  <get-lm-routing-peer-information>
    <name>name</name>
  </get-lm-routing-peer-information>
</rpc>
```

Description Peers.

Contents <name>—Name of peer.

<get-lm-routing-te-link-information>

Usage

```
<rpc>
  <get-lm-routing-te-link-information>
    <name>name</name>
  </get-lm-routing-te-link-information>
</rpc>
```

Description Show traffic engineering links.

Contents <name>—Name of TE link.

<get-lm-te-link-information>

Usage

```
<rpc>
  <get-lm-te-link-information>
    <name>name</name>
  </get-lm-te-link-information>
</rpc>
```

Description Show traffic engineering links.

Contents <name>—Name of TE link.

<get-mpls-admin-group-information>

Usage

```
<rpc>
  <get-mpls-admin-group-information />
</rpc>
```

Description Show MPLS administrative groups.

<get-mpls-cspf-information>

Usage

```
<rpc>
  <get-mpls-cspf-information />
</rpc>
```

Description Show CSPF statistics.

<get-mpls-interface-information>

Usage

```
<rpc>
  <get-mpls-interface-information />
</rpc>
```

Description Show MPLS interfaces.

<get-mpls-lsp-information>

Usage

```
<rpc>
  <get-mpls-lsp-information>
    <ingress/>
    <egress/>
    <transit/>
    <terse/>
    <brief/>
    <detail/>
    <extensive/>
    <up/>
    <down/>
    <unidirectional/>
    <bidirectional/>
    <statistics/>
    <name>name</name>
  </get-mpls-lsp-information>
</rpc>
```

Description Show configured label-switched paths.

Contents <bidirectional>—Label-switched paths that are bidirectional.

<brief>—Brief view.

<detail>—Detailed view.

<down>—Label-switched paths that are in down state.

<egress>—Label-switched paths that end at this router.

<extensive>—Extensive view.

<ingress>—Label-switched paths that originate from this router.

<name>—Show label-switched paths matching pattern.

<statistics>—Packet statistics for label-switched paths.

<terse>—Terse view.

<transit>—Label-switched paths that transit this router.

<unidirectional>—Label-switched paths that are unidirectional.

<up>—Label-switched paths that are in up state.

<get-mpls-path-information>

Usage

```
<rpc>
  <get-mpls-path-information>
    <path>path</path>
  </get-mpls-path-information>
</rpc>
```

Description Show configured named paths.

Contents <path>—Name of a particular label-switched path.

<get-ospf-database-information>

Usage

```
<rpc>
  <get-ospf-database-information>
    <router/>
    <network/>
    <netsummary/>
    <asbrsummary/>
    <extern/>
    <nssa/>
    <link-local/>
    <brief/>
    <detail/>
    <extensive/>
    <summary/>
    <area>area</area>
    <lsa-id>lsa-id</lsa-id>
    <advertising-router>advertising-router</advertising-router>
    <instance>instance</instance>
  </get-ospf-database-information>
</rpc>
```

Description Show the OSPF link-state database.

Contents <advertising-router>—Router ID of advertising router.

<area>—OSPF area ID.

<asbrsummary>—Show OSPF summary ASBR link-state database.

<brief>—Show brief view.

<detail>—Show detailed view.

<extensive>—Show extensive view.

<extern>—Show OSPF external link-state database.

<instance>—Particular OSPF instance.

<link-local>—Show OSPF link local link-state database.

<lsa-id>—LSA ID.

<netsummary>—Show OSPF summary network link-state database.

<network>—Show OSPF network link-state database.

<nssa>—Show OSPF NSSA link-state database.

<router>—Show OSPF router link-state database.

<summary>—Show summary view.

<get-ospf-interface-information>

Usage

```
<rpc>
  <get-ospf-interface-information>
    <brief/>
    <detail/>
    <extensive/>
    <interface-name>interface-name</interface-name>
    <instance>instance</instance>
  </get-ospf-interface-information>
</rpc>
```

Description Show OSPF interface status.

Contents <brief>—Show brief status.

<detail>—Show detailed status.

<extensive>—Show extensive status.

<instance>—Particular OSPF instance.

<interface-name>—Logical interface name.

<get-ospf-io-statistics-information>

Usage

```
<rpc>
  <get-ospf-io-statistics-information/>
</rpc>
```

Description Show OSPF I/O statistics.

<get-ospf-log-information>

Usage

```
<rpc>
  <get-ospf-log-information>
    <instance>instance</instance>
  </get-ospf-log-information>
</rpc>
```

Description Show OSPF SPF log.

Contents <instance>—Particular OSPF instance.

<get-ospf-neighbor-information>

Usage

```
<rpc>
  <get-ospf-neighbor-information>
    <brief/>
    <detail/>
    <extensive/>
    <neighbor>neighbor</neighbor>
    <instance>instance</instance>
  </get-ospf-neighbor-information>
</rpc>
```

Description Show OSPF neighbor status.

Contents <brief>—Show brief status.

<detail>—Show detailed status.

<extensive>—Show extensive status.

<instance>—Particular OSPF instance.

<neighbor>—Neighbor address or ID.

<get-ospf-route-information>

Usage

```
<rpc>
  <get-ospf-route-information>
    <detail/>
    <intra/>
    <inter/>
    <abr/>
    <asbr/>
    <extern/>
    <instance>instance</instance>
  </get-ospf-route-information>
</rpc>
```

Description Show the OSPF routing table.

Contents <abr>—Show OSPF routes to area border routers.

<asbr>—Show OSPF routes to AS border routers.

<detail>—Show detail view.

<extern>—Show external OSPF routes.

<instance>—Particular OSPF instance.

<inter>—Show inter-area OSPF routes.

<intra>—Show intra-area OSPF routes.

<get-ospf-statistics-information>

Usage

```
<rpc>
  <get-ospf-statistics-information>
    <instance>instance</instance>
  </get-ospf-statistics-information>
</rpc>
```

Description Show OSPF statistics.

Contents <instance>—Particular OSPF instance.

<get-ospf3-database-information>

Usage

```
<rpc>
  <get-ospf3-database-information>
    <router/>
    <network/>
    <inter-area-prefix/>
    <inter-area-router/>
    <extern/>
    <nssa/>
    <link/>
    <link-local/>
    <intra-area-prefix/>
    <brief/>
    <detail/>
    <extensive/>
    <summary/>
    <area>area</area>
    <lsa-id>lsa-id</lsa-id>
    <advertising-router>advertising-router</advertising-router>
    <instance>instance</instance>
  </get-ospf3-database-information>
</rpc>
```

Description Show the OSPF3 link-state database.

Contents <advertising-router>—Router ID of advertising router.

<area>—OSPF3 area ID.

<brief>—Show brief view.

<detail>—Show detailed view.

<extensive>—Show extensive view.

<extern>—Show OSPF3 external link-state database.

<instance>—Particular OSPF3 instance.

<inter-area-prefix>—Show OSPF3 inter-area-prefix link-state database.

<inter-area-router>—Show OSPF3 inter-area-router link-state database.

<intra-area-prefix>—Show OSPF3 intra-area-prefix link-state database.

<link>—Show OSPF3 link LSAs.

<link-local>—Show OSPF3 link local link-state database.

<lsa-id>—LSA ID.

<network>—Show OSPF3 network link-state database.

<nssa>—Show OSPF3 NSSA link-state database.

<router>—Show OSPF3 router link-state database.

<summary>—Show summary view.

<get-ospf3-interface-information>

Usage

```
<rpc>
  <get-ospf3-interface-information>
    <brief/>
    <detail/>
    <extensive/>
    <interface-name>interface-name</interface-name>
    <instance>instance</instance>
  </get-ospf3-interface-information>
</rpc>
```

Description Show OSPF3 interface status.

Contents <brief>—Show brief status.

<detail>—Show detailed status.

<extensive>—Show extensive status.

<instance>—Particular OSPF3 instance.

<interface-name>—Logical interface name.

<get-ospf3-io-statistics-information>

Usage

```
<rpc>
  <get-ospf3-io-statistics-information/>
</rpc>
```

Description Show OSPF3 I/O statistics.

<get-ospf3-log-information>

Usage

```
<rpc>
  <get-ospf3-log-information>
    <instance>instance</instance>
  </get-ospf3-log-information>
</rpc>
```

Description Show OSPF3 SPF log.

Contents <instance>—Particular OSPF3 instance.

<get-ospf3-neighbor-information>

Usage

```
<rpc>
  <get-ospf3-neighbor-information>
    <brief/>
    <detail/>
    <extensive/>
    <neighbor>neighbor</neighbor>
    <instance>instance</instance>
  </get-ospf3-neighbor-information>
</rpc>
```

Description Show OSPF3 neighbor status.

Contents <brief>—Show brief status.

<detail>—Show detailed status.

<extensive>—Show extensive status.

<instance>—Particular OSPF3 instance.

<neighbor>—Neighbor address or ID.

<get-ospf3-route-information>

Usage

```
<rpc>
  <get-ospf3-route-information>
    <detail/>
    <intra/>
    <inter/>
    <transit/>
    <abr/>
    <asbr/>
    <extern/>
    <instance>instance</instance>
  </get-ospf3-route-information>
</rpc>
```

Description Show the OSPF3 routing table.

Contents <abr>—Show OSPF3 routes to area border routers.

<asbr>—Show OSPF3 routes to AS border routers.

<detail>—Show detail view.

<extern>—Show external OSPF3 routes.

<instance>—Particular OSPF3 instance.

<inter>—Show inter-area OSPF3 routes.

<intra>—Show intra-area OSPF3 routes.

<transit>—Show OSPF3 routes to pseudo-nodes.

<get-ospf3-statistics-information>

Usage

```
<rpc>
  <get-ospf3-statistics-information>
    <instance>instance</instance>
  </get-ospf3-statistics-information>
</rpc>
```

Description Show OSPF3 statistics.

Contents <instance>—Particular OSPF3 instance.

<get-passive-monitoring-error-information>

Usage

```
<rpc>
  <get-passive-monitoring-error-information>
    <interface-name>interface-name</interface-name>    <!-- mandatory -->
  </get-passive-monitoring-error-information>
</rpc>
```

Description Error statistics.

Contents <interface-name>—Physical interface, wildcard, or all.

<get-passive-monitoring-flow-information>

Usage

```
<rpc>
  <get-passive-monitoring-flow-information>
    <interface-name>interface-name</interface-name>    <!-- mandatory -->
  </get-passive-monitoring-flow-information>
</rpc>
```

Description Flow statistics.

Contents <interface-name>—Physical interface, wildcard, or all.

<get-passive-monitoring-information>

Usage

```
<rpc>
  <get-passive-monitoring-information/>
</rpc>
```

Description Show information about passive monitoring.

<get-passive-monitoring-memory-information>

Usage

```
<rpc>
  <get-passive-monitoring-memory-information>
    <interface-name>interface-name</interface-name>    <!-- mandatory -->
  </get-passive-monitoring-memory-information>
</rpc>
```

Description Memory utilization.

Contents <interface-name>—Physical interface, wildcard, or all.

<get-passive-monitoring-status-information>

Usage

```
<rpc>
  <get-passive-monitoring-status-information>
    <interface-name>interface-name</interface-name>    <!-- mandatory -->
  </get-passive-monitoring-status-information>
</rpc>
```

Description Status information.

Contents <interface-name>—Physical interface, wildcard, or all.

<get-passive-monitoring-usage-information>

Usage

```
<rpc>
  <get-passive-monitoring-usage-information>
    <interface-name>interface-name</interface-name>    <!-- mandatory -->
  </get-passive-monitoring-usage-information>
</rpc>
```

Description CPU utilization.

Contents <interface-name>—Physical interface, wildcard, or all.

<get-pic-detail>

Usage

```
<rpc>
  <get-pic-detail>
    <fpc-slot>fpc-slot</fpc-slot>     <!-- mandatory -->
    <pic-slot>pic-slot</pic-slot>     <!-- mandatory -->
  </get-pic-detail>
</rpc>
```

Description Show details for PIC.

Contents <fpc-slot>—FPC slot number.

<pic-slot>—PIC slot number.

<get-pic-information>

Usage

```
<rpc>
  <get-pic-information>
    <slot>slot</slot>
  </get-pic-information>
</rpc>
```

Description Show Physical Interface Card (PIC) status.

Contents <slot>—Slot number of FPC for which to display PIC status.

<get-rmon-alarm-information>

Usage

```
<rpc>
  <get-rmon-alarm-information>
    <brief/>
    <detail/>
  </get-rmon-alarm-information>
</rpc>
```

Description Show RMON alarms.

Contents <brief>—Show brief alarms.

<detail>—Show detailed alarms.

<get-rmon-event-information>

Usage

```
<rpc>
  <get-rmon-event-information>
    <brief/>
    <detail/>
  </get-rmon-event-information>
</rpc>
```

Description Show RMON events.

Contents <brief>—Show brief events.

<detail>—Show detailed events.

<get-rmon-information>

Usage

```
<rpc>
  <get-rmon-information/>
</rpc>
```

Description Show RMON information.

<get-route-engine-information>

Usage

```
<rpc>
  <get-route-engine-information>
    <slot>slot</slot>
  </get-route-engine-information>
</rpc>
```

Description Show Routing Engine status.

Contents <slot>—Slot number of Routing Engine for which to display status.

<get-route-information>

Usage

```
<rpc>
  <get-route-information>
    <terse/>
    <brief/>
    <detail/>
    <extensive/>
    <best/>
    <exact/>
    <range/>
    <table>table</table>
    <inactive/>
    <damping>damping-choice</damping>
    <next-hop>next-hop</next-hop>
    <source-gateway>source-gateway</source-gateway>
    <protocol>protocol-choice</protocol>
    <bgp/>
    <dvmrp/>
    <pim/>
    <ripng/>
    <rip/>
    <msdp/>
    <neighbor>neighbor</neighbor>
    <bgp/>
    <rip/>
    <ripng/>
    <dvmrp/>
    <pim/>
    <msdp/>
    <peer>peer</peer>
    <aspath-regex>aspath-regex</aspath-regex>
    <community>...</community>     <!-- multiple -->
    <no-community/>
    <community-name>community-name</community-name>
    <label-switched-path>label-switched-path</label-switched-path>
    <destination>destination</destination>
    <hidden/>
    <all/>
  </get-route-information>
</rpc>
```

Description Show routing table information.

Contents <all>—All entries including hidden entries.

<aspath-regex>—Entries learned via a specific AS path.

<best>—Show longest match.

<brief>—Brief view.

<community>—Community to match (can include wildcards).

<community-name>—Name of configured community policy to match.

<damping>—Entries that have been subjected to route damping.

- decayed—Entries which are decayed but are not suppressed.
- history—Entries which are withdrawn but have history.
- suppressed—Entries suppressed due to route damping.

<destination>—Destination prefix and prefix length information.

<detail>—Detailed view.

<exact>—Show exact match.

<extensive>—Extensive view.

<hidden>—Hidden entries.

<inactive>—Inactive entries.

<label-switched-path>—Entries associated with a particular LSP tunnel.

<next-hop>—Entries pointing to a particular next hop.

<no-community>—Entries without an associated community.

<protocol>—Information learned from a particular routing protocol.

- aggregate—Locally generated aggregate route.
- bgp—Border Gateway Protocol.
- direct—Directly connected routes.
- dvmrp—DV Multicast Routing Protocol.
- isis—Intermediate System-to-Intermediate System.
- l2circuit—Layer 2 circuits.
- l2vpn—Layer 2 MPLS VPNs.
- ldp—Label Distribution Protocol.
- local—Local system addresses.
- mpls—Multiprotocol Label Switching.
- msdp—Multicast Source Discovery.
- ospf—Open Shortest Path First.
- pim—Protocol Independent Multicast.
- rip—Routing Information Protocol.
- ripng—RIPng for IPv6.

- rsvp—Resource Reservation Protocol.
- static—Statically defined prefixes.
- vpn—Layer 3 MPLS VPNs.

<range>—Show entire prefix range.

<source-gateway>—Entries learned from a particular router.

<table>—Entries in a particular routing table.

<terse>—Terse view.

<get-route-summary-information>

Usage

```
<rpc>
  <get-route-summary-information/>
</rpc>
```

Description Show routing table statistics.

<get-rsvp-interface-information>

Usage

```
<rpc>
  <get-rsvp-interface-information>
    <brief/>
    <detail/>
    <link-management/>
  </get-rsvp-interface-information>
</rpc>
```

Description Show RSVP interfaces.

Contents <brief>—RSVP interfaces brief view.

<detail>—RSVP interfaces detail view.

<link-management>—RSVP interfaces created by LMP.

<get-rsvp-neighbor-information>

Usage

```
<rpc>
  <get-rsvp-neighbor-information>
    <brief/>
    <detail/>
  </get-rsvp-neighbor-information>
</rpc>
```

Description Show RSVP neighbors.

Contents <brief>—Show brief view.

<detail>—Show detail view.

<get-rsvp-session-information>

Usage

```
<rpc>
  <get-rsvp-session-information>
    <ingress/>
    <egress/>
    <transit/>
    <lsp/>
    <nolsp/>
    <up/>
    <down/>
    <unidirectional/>
    <bidirectional/>
    <terse/>
    <brief/>
    <detail/>
    <name>name</name>
    <interface>interface</interface>
    <te-link>te-link</te-link>
  </get-rsvp-session-information>
</rpc>
```

Description Show active RSVP sessions.

Contents <bidirectional>—RSVP sessions that are bidirectional.

<brief>—Brief view.

<detail>—Detailed view.

<down>—Label-switched paths that are in down state.

<egress>—RSVP sessions that end at this router.

<ingress>—RSVP sessions that originate from this router.

<interface>—Show sessions on a particular interface.

<lsp>—Show RSVP sessions used to set up LSPs.

<name>—Show a particular RSVP session name.

<nolsp>—Show RSVP sessions not used to set up LSPs.

<te-link>—Show sessions on a particular TE link.

<terse>—Terse view.

<transit>—RSVP sessions that transit this router.

<unidirectional>—RSVP sessions that are unidirectional.

<up>—Label-switched paths that are in up state.

<get-rsvp-statistics-information>

Usage

```
<rpc>
  <get-rsvp-statistics-information />
</rpc>
```

Description Show RSVP statistics.

<get-rsvp-version-information>

Usage

```
<rpc>
  <get-rsvp-version-information />
</rpc>
```

Description Show RSVP version.

<get-rtexport-instance-information>

Usage

```
<rpc>
  <get-rtexport-instance-information>
    <brief />
    <detail />
    <instance-name>instance-name</instance-name>
  </get-rtexport-instance-information>
</rpc>
```

Description Display instance configuration and runtime information.

Contents <brief>—Show brief view.

<detail>—Show detail view.

<instance-name>—Instance name.

<get-rtexport-table-information>

Usage

```
<rpc>
  <get-rtexport-table-information>
    <brief />
    <detail />
    <table-name>table-name</table-name>
  </get-rtexport-table-information>
</rpc>
```

Description Show instance export information.

Contents <brief>—Show brief view.

<detail>—Show detail view.

<table-name>—Show a particular table.

<get-rtexport-target-information>

Usage

```
<rpc>
  <get-rtexport-target-information>
    <brief/>
    <detail/>
    <community>...</community>     <!-- multiple -->
  </get-rtexport-target-information>
</rpc>
```

Description Display VRF route target export information.

Contents <brief>—Show brief view.

<community>—Community to match (can include wildcards).

<detail>—Show detail view.

<get-scb-information>

Usage

```
<rpc>
  <get-scb-information/>
</rpc>
```

Description Show System Control Board (SCB) status.

<get-security-associations-information>

Usage

```
<rpc>
  <get-security-associations-information>
    <brief/>
    <detail/>
    <sa-name>sa-name</sa-name>
  </get-security-associations-information>
</rpc>
```

Description Show IPSec security association information.

Contents <brief>—Display brief information.

<detail>—Display detailed information.

<sa-name>—Name of security association.

<get-sfm-information>

Usage

```
<rpc>
  <get-sfm-information/>
</rpc>
```

Description Show Switching and Forwarding Module (SFM) status.

<get-snmp-information>

Usage

```
<rpc>
  <get-snmp-information/>
</rpc>
```

Description Show SNMP statistics.

<get-source-class-statistics>

Usage

```
<rpc>
  <get-source-class-statistics>
    <class-name>class-name</class-name>     <!-- mandatory -->
    <interface-name>interface-name</interface-name>     <!-- mandatory -->
  </get-source-class-statistics>
</rpc>
```

Description Display statistics for a specific source class.

Contents <class-name>—No documentation is available yet.

<interface-name>—No documentation is available yet.

<get-spmb-information>

Usage

```
<rpc>
  <get-spmb-information/>
</rpc>
```

Description Show Switch Processor Mezzanine Board (SPMB) status.

<get-spmb-sib-information>

Usage

```
<rpc>
  <get-spmb-sib-information/>
</rpc>
```

Description Show Switch Interface Board (SIB) status.

<get-ssb-information>

Usage

```
<rpc>
  <get-ssb-information>
    <slot>slot</slot>
  </get-ssb-information>
</rpc>
```

Description Show System Switch Board (SSB) status.

Contents <slot>—Slot number of SSB for which to display status.

<get-syslog-tag-information>

Usage

```
<rpc>
  <get-syslog-tag-information>
    <syslog-tag>syslog-tag</syslog-tag>     <!-- mandatory -->
  </get-syslog-tag-information>
</rpc>
```

Description System log error messages.

Contents <syslog-tag>—System log tag.

<get-system-uptime-information>

Usage

```
<rpc>
  <get-system-uptime-information/>
</rpc>
```

Description Show time since system and processes started.

<get-system-users-information>

Usage

```
<rpc>
  <get-system-users-information>
    <no-resolve/>
  </get-system-users-information>
</rpc>
```

Description Show users currently logged into the system.

Contents <no-resolve>—Don't attempt to print addresses symbolically.

<get-ted-database-information>

Usage

```
<rpc>
  <get-ted-database-information>
    <brief/>
    <detail/>
    <extensive/>
    <system-id>system-id</system-id>
  </get-ted-database-information>
</rpc>
```

Description Show current TED database.

Contents <brief>—Show brief status.

<detail>—Show detailed status.

<extensive>—Show extensive status.

<system-id>—System ID or node ID.

<get-ted-link-information>

Usage

```
<rpc>
  <get-ted-link-information>
    <brief/>
    <detail/>
  </get-ted-link-information>
</rpc>
```

Description Show current TED link.

Contents <brief>—Show brief view.

<detail>—Show detail view.

<get-ted-protocol-information>

Usage

```
<rpc>
  <get-ted-protocol-information>
    <brief/>
    <detail/>
  </get-ted-protocol-information>
</rpc>
```

Description Show current contributing protocols.

Contents <brief>—Show brief view.

<detail>—Show detail view.

<request-end-session>

Usage

```
<rpc>
  <request-end-session/>
</rpc>
```

Description Exit the management session.

<request-ggsn-restart-interface>

Usage

```
<rpc>
  <request-ggsn-restart-interface>
    <interface-name>interface-name</interface-name>     <!-- mandatory -->
  </request-ggsn-restart-interface>
</rpc>
```

Description Restart a GGSN interface.

Contents <interface-name>—Service interface name.

<request-ggsn-restart-node>

Usage

```
<rpc>
  <request-ggsn-restart-node />
</rpc>
```

Description Restart GGSN node activity.

<request-ggsn-start-imsi-trace>

Usage

```
<rpc>
  <request-ggsn-start-imsi-trace>
    <imsi-identifier>imsi-identifier</imsi-identifier>     <!-- mandatory -->
  </request-ggsn-start-imsi-trace>
</rpc>
```

Description Start tracing an IMSI.

Contents <imsi-identifier>—IMSI identifier.

<request-ggsn-start-msisdn-trace>

Usage

```
<rpc>
  <request-ggsn-start-msisdn-trace>
    <msisdn-identifier>msisdn-identifier</msisdn-identifier>     <!-- mandatory -->
  </request-ggsn-start-msisdn-trace>
</rpc>
```

Description Start tracing an MSISDN.

Contents <msisdn-identifier>—MSISDN identifier.

<request-ggsn-stop-imsi-trace>

Usage

```
<rpc>
  <request-ggsn-stop-imsi-trace>
    <imsi-identifier>imsi-identifier</imsi-identifier>     <!-- mandatory -->
  </request-ggsn-stop-imsi-trace>
</rpc>
```

Description Stop tracing an IMSI.

Contents <imsi-identifier>—IMSI identifier.

<request-ggsn-stop-interface>

Usage

```
<rpc>
  <request-ggsn-stop-interface>
    <interface-name>interface-name</interface-name>     <!-- mandatory -->
  </request-ggsn-stop-interface>
</rpc>
```

Description Stop a GGSN interface.

Contents <interface-name>—Service interface name.

<request-ggsn-stop-msisdn-trace>

Usage

```
<rpc>
  <request-ggsn-stop-msisdn-trace>
    <msisdn-identifier>msisdn-identifier</msisdn-identifier>     <!-- mandatory -->
  </request-ggsn-stop-msisdn-trace>
</rpc>
```

Description Stop tracing an MSISDN.

Contents <msisdn-identifier>—MSISDN identifier.

<request-ggsn-stop-node>

Usage

```
<rpc>
  <request-ggsn-stop-node/>
</rpc>
```

Description Stop GGSN node activity.

<request-ggsn-stop-trace-activity>

Usage

```
<rpc>
  <request-ggsn-stop-trace-activity/>
</rpc>
```

Description Stop all tracing.

<request-ggsn-terminate-context>

Usage

```
<rpc>
  <request-ggsn-terminate-context>
    <imsi>imsi</imsi>     <!-- mandatory -->
    <nsapi>nsapi</nsapi>     <!-- mandatory -->
  </request-ggsn-terminate-context>
</rpc>
```

Description Terminate a PDP context.

Contents <imsi>—IMSI identifier from which to clear contexts.

<nsapi>—NSAPI identifier from which to clear contexts.

<request-ggsn-terminate-contexts-apn>

Usage

```
<rpc>
  <request-ggsn-terminate-contexts-apn>
    <apn-name>apn-name</apn-name>     <!-- mandatory -->
  </request-ggsn-terminate-contexts-apn>
</rpc>
```

Description Terminate all PDP contexts within an APN.

Contents <apn-name>—APN from which to clear contexts.

<request-halt>

Usage

```
<rpc>
  <request-halt>
    <at>at</at>
    <in>in</in>
    <message>message</message>
    <media>media-choice</media>
  </request-halt>
</rpc>
```

Description Halt the system.

Contents <at>—Time at which to perform the operation.

<in>—Number of minutes to delay before operation.

<media>—Boot media for next boot.

- compact-flash—Standard boot off flash device.
- disk—Boot off hard disk.

<message>—Message to display to all users.

<request-package-add>

Usage

```
<rpc>
  <request-package-add>
    <force/>
    <reboot/>
    <delay-restart/>
    <no-copy/>
    <validate/>
    <package-name>package-name</package-name>     <!-- mandatory -->
  </request-package-add>
</rpc>
```

Description Add an extension or upgrade package.

Contents <delay-restart>—Do not restart daemons.

<force>—Force package to be added (ignore warnings).

<no-copy>—Do not save copies of package files.

<package-name>—URL or path of package.

<reboot>—After adding the package, reboot the system.

<validate>—Check compatibility with current configuration.

<request-package-delete>

Usage

```
<rpc>
  <request-package-delete>
    <force/>
    <package-name>package-name</package-name>     <!-- mandatory -->
  </request-package-delete>
</rpc>
```

Description Remove an extension or upgrade package.

Contents <force>—Force package to be removed (ignore warnings).

<package-name>—Package name.

<request-package-validate>

Usage

```
<rpc>
  <request-package-validate>
    <package-name>package-name</package-name>     <!-- mandatory -->
  </request-package-validate>
</rpc>
```

Description Verify that an extension or upgrade package is compatible with the configuration.

Contents <package-name>—URL or path of package.

<request-reboot>

Usage

```
<rpc>
  <request-reboot>
    <at>at</at>
    <in>in</in>
    <message>message</message>
    <media>media-choice</media>
  </request-reboot>
</rpc>
```

Description Reboot the system.

Contents <at>—Time at which to perform the operation.

<in>—Number of minutes to delay before operation.

<media>—Boot media for next boot.

- compact-flash—Standard boot off flash device.
- disk—Boot off hard disk.

<message>—Message to display to all users.

Chapter 4
Summary of Operational Response Tags

This chapter lists the tags returned by the JUNOScript server in response to a client application's request for operational information. The tags are divided into the following sections and listed in alphabetical order within each section.

- Summary of Accounting Response Tags on page 82
- Summary of Alarm Response Tags on page 89
- Summary of Chassis Response Tags on page 90
- Summary of Class of Service Response Tags on page 107
- Summary of Firewall Filter Response Tags on page 130
- Summary of Forwarding and Routing Table Response Tags on page 133
- Summary of Interface Response Tags on page 135
- Summary of IPSec Response Tags on page 198
- Summary of IPv6 Neighbor Discovery Response Tags on page 204
- Summary of J20 GGSN Response Tags on page 205
- Summary of Passive Monitoring Response Tags on page 224
- Summary of Routing Protocols Response Tags on page 228
- Summary of SNMP Response Tags on page 356
- Summary of System Process Information Response Tags on page 361
- Summary of UDP Forwarding Helper Response Tags on page 367

For information about the notation used in this chapter, see "Conventions for Tag Summaries" on page lxxiv. To review the document type definitions (DTDs) for these tags, see "JUNOScript Document Type Definitions" on page 1697.

Summary of Accounting Response Tags

This section lists the tags returned by the JUNOScript server to describe accounting records. The associated Extensible Markup Language (XML) namespace is http://xml.juniper.net/junos/5.5R1/junos-accounting. To review the DTD for the tags, see "DTD for Accounting Response Tags" on page 1703.

< accounting-profile-columns >

Usage

```
<accounting-profile-information>
  <accounting-profile-columns>
    <column-label>column-label</column-label>
  </accounting-profile-columns>
</accounting-profile-information>
```

Description No documentation is available yet.

Contents <column-label>—No documentation is available yet.

< accounting-profile-filter >

Usage

```
<accounting-profile-information>
  <accounting-profile-filter>
    <filter-name>filter-name</filter-name>
    <next-scheduled-collection>next-scheduled-collection</next-scheduled-collection>
  </accounting-profile-filter>
</accounting-profile-information>
```

Description No documentation is available yet.

Contents <filter-name>—No documentation is available yet.

<next-scheduled-collection>—No documentation is available yet.

< accounting-profile-header >

Usage

```
<accounting-profile-information>
  <accounting-profile-header>
    <profile-name>profile-name</profile-name>
    <profile-interval>profile-interval</profile-interval>
    <profile-use-count>profile-use-count</profile-use-count>
    <filename>filename</filename>
    <filesize>filesize</filesize>
    <filenumber>filenumber</filenumber>
    <bytes-written>bytes-written</bytes-written>
    <transfer-interval>transfer-interval</transfer-interval>
    <next-transfer-time>next-transfer-time</next-transfer-time>
  </accounting-profile-header>
</accounting-profile-information>
```

Description No documentation is available yet.

Contents <bytes-written>—No documentation is available yet.

<filename>—No documentation is available yet.

<filenumber>—No documentation is available yet.

<filesize>—No documentation is available yet.

<next-transfer-time>—No documentation is available yet.

<profile-interval>—No documentation is available yet.

<profile-name>—No documentation is available yet.

<profile-use-count>—No documentation is available yet.

<transfer-interval>—No documentation is available yet.

< *accounting-profile-information* >

Usage

```
<rpc-reply>
  <accounting-profile-information>
    <accounting-profile-header>...</accounting-profile-header>
    <accounting-profile-columns>...</accounting-profile-columns>
    <accounting-profile-interfaces>...</accounting-profile-interfaces>
    <accounting-profile-filter>...</accounting-profile-filter>
  </accounting-profile-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <accounting-profile-columns>—No documentation is available yet.

<accounting-profile-filter>—No documentation is available yet.

<accounting-profile-header>—No documentation is available yet.

<accounting-profile-interfaces>—No documentation is available yet.

< *accounting-profile-interfaces* >

Usage

```
<accounting-profile-information>
  <accounting-profile-interfaces>
    <interface-name>interface-name</interface-name>
    <next-scheduled-collection>next-scheduled-collection</next-scheduled-collection>
  </accounting-profile-interfaces>
</accounting-profile-information>
```

Description No documentation is available yet.

Contents <interface-name>—No documentation is available yet.

<next-scheduled-collection>—No documentation is available yet.

< *accounting-record-information* >

Usage

```
<rpc-reply>
  <accounting-record-information>
    <interface-accounting-statistics>...</interface-accounting-statistics>
    <routing-engine-accounting-statistics>...</routing-engine-accounting-statistics>
    <filter-accounting-statistics>...</filter-accounting-statistics>
    <cu-accounting-statistics>...</cu-accounting-statistics>
  </accounting-record-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <cu-accounting-statistics>—No documentation is available yet.

<filter-accounting-statistics>—No documentation is available yet.

<interface-accounting-statistics>—No documentation is available yet.

<routing-engine-accounting-statistics>—No documentation is available yet.

< *cu-accounting-record* >

Usage

```
<cu-accounting-statistics>
  <cu-accounting-record>
    <profile-layout>profile-layout</profile-layout>
    <epoch-timestamp>epoch-timestamp</epoch-timestamp>
    <utc-timestamp>utc-timestamp</utc-timestamp>
    <interface-name>interface-name</interface-name>
    <address-family>address-family</address-family>
    <destination-class-name>destination-class-name</destination-class-name>
    <source-class-name>source-class-name</source-class-name>
    <counter-name>counter-name</counter-name>
    <packet-count>packet-count</packet-count>
    <byte-count>byte-count</byte-count>
  </cu-accounting-record>
</cu-accounting-statistics>
```

Description No documentation is available yet.

Contents <address-family>—No documentation is available yet.

<byte-count>—No documentation is available yet.

<counter-name>—No documentation is available yet.

<destination-class-name>—No documentation is available yet.

<epoch-timestamp>—No documentation is available yet.

<interface-name>—No documentation is available yet.

<packet-count>—No documentation is available yet.

<profile-layout>—No documentation is available yet.

<source-class-name>—No documentation is available yet.

<utc-timestamp>—No documentation is available yet.

< *cu-accounting-statistics* >

Usage

```
<accounting-record-information>
  <cu-accounting-statistics>
    <cu-accounting-record>...</cu-accounting-record>
  </cu-accounting-statistics>
</accounting-record-information>
```

Description No documentation is available yet.

Contents <cu-accounting-record>—No documentation is available yet.

< *filter-accounting-record* >

Usage

```
<filter-accounting-statistics>
  <filter-accounting-record>
    <profile-layout>profile-layout</profile-layout>
    <epoch-timestamp>epoch-timestamp</epoch-timestamp>
    <utc-timestamp>utc-timestamp</utc-timestamp>
    <interfaces>interfaces</interfaces>
    <filter-name>filter-name</filter-name>
    <counter-name>counter-name</counter-name>
    <packet-count>packet-count</packet-count>
    <byte-count>byte-count</byte-count>
  </filter-accounting-record>
</filter-accounting-statistics>
```

Description No documentation is available yet.

Contents <byte-count>—No documentation is available yet.

<counter-name>—No documentation is available yet.

<epoch-timestamp>—No documentation is available yet.

<filter-name>—No documentation is available yet.

<interfaces>—No documentation is available yet.

<packet-count>—No documentation is available yet.

<profile-layout>—No documentation is available yet.

<utc-timestamp>—No documentation is available yet.

< filter-accounting-statistics >

Usage

```
<accounting-record-information>
  <filter-accounting-statistics>
    <filter-accounting-record>...</filter-accounting-record>
  </filter-accounting-statistics>
</accounting-record-information>
```

Description No documentation is available yet.

Contents <filter-accounting-record>—No documentation is available yet.

< interface-accounting-record >

Usage

```
<interface-accounting-statistics>
  <interface-accounting-record>
    <profile-layout>profile-layout</profile-layout>
    <epoch-timestamp>epoch-timestamp</epoch-timestamp>
    <utc-timestamp>utc-timestamp</utc-timestamp>
    <interface-name>interface-name</interface-name>
    <snmp-index>snmp-index</snmp-index>
    <input-bytes>input-bytes</input-bytes>
    <output-bytes>output-bytes</output-bytes>
    <input-packets>input-packets</input-packets>
    <output-packets>output-packets</output-packets>
    <input-unicast>input-unicast</input-unicast>
    <output-unicast>output-unicast</output-unicast>
    <input-multicast>input-multicast</input-multicast>
    <output-multicast>output-multicast</output-multicast>
    <input-errors>input-errors</input-errors>
    <output-errors>output-errors</output-errors>
    <no-proto>no-proto</no-proto>
    <rpf-check-bytes>rpf-check-bytes</rpf-check-bytes>
    <rpf-check-packets>rpf-check-packets</rpf-check-packets>
    <rpf-check6-bytes>rpf-check6-bytes</rpf-check6-bytes>
    <rpf-check6-packets>rpf-check6-packets</rpf-check6-packets>
  </interface-accounting-record>
</interface-accounting-statistics>
```

Description No documentation is available yet.

Contents <epoch-timestamp>—No documentation is available yet.

<input-bytes>—No documentation is available yet.

<input-errors>—No documentation is available yet.

<input-multicast>—No documentation is available yet.

<input-packets>—No documentation is available yet.

<input-unicast>—No documentation is available yet.

<interface-name>—No documentation is available yet.

<no-proto>—No documentation is available yet.

<output-bytes>—No documentation is available yet.

<output-errors>—No documentation is available yet.

<output-multicast>—No documentation is available yet.

<output-packets>—No documentation is available yet.

<output-unicast>—No documentation is available yet.

<profile-layout>—No documentation is available yet.

<rpf-check-bytes>—No documentation is available yet.

<rpf-check-packets>—No documentation is available yet.

<rpf-check6-bytes>—No documentation is available yet.

<rpf-check6-packets>—No documentation is available yet.

<snmp-index>—No documentation is available yet.

<utc-timestamp>—No documentation is available yet.

< *interface-accounting-statistics* >

Usage

```
<accounting-record-information>
  <interface-accounting-statistics>
    <interface-accounting-record>...</interface-accounting-record>
  </interface-accounting-statistics>
</accounting-record-information>
```

Description No documentation is available yet.

Contents <interface-accounting-record>—No documentation is available yet.

< *routing-engine-accounting-record* >

Usage

```
<routing-engine-accounting-statistics>
  <routing-engine-accounting-record>
    <profile-layout>profile-layout</profile-layout>
    <epoch-timestamp>epoch-timestamp</epoch-timestamp>
    <utc-timestamp>utc-timestamp</utc-timestamp>
    <hostname>hostname</hostname>
    <date-yyyymmdd>date-yyyymmdd</date-yyyymmdd>
    <timeofday-hhmmss>timeofday-hhmmss</timeofday-hhmmss>
    <uptime>uptime</uptime>
    <cpu1min>cpu1min</cpu1min>
    <cpu5min>cpu5min</cpu5min>
    <cpu15min>cpu15min</cpu15min>
  </routing-engine-accounting-record>
</routing-engine-accounting-statistics>
```

Description No documentation is available yet.

Contents <cpu15min>—No documentation is available yet.

<cpu1min>—No documentation is available yet.

<cpu5min>—No documentation is available yet.

<date-yyyymmdd>—No documentation is available yet.

<epoch-timestamp>—No documentation is available yet.

<hostname>—No documentation is available yet.

<profile-layout>—No documentation is available yet.

<timeofday-hhmmss>—No documentation is available yet.

<uptime>—No documentation is available yet.

<utc-timestamp>—No documentation is available yet.

< *routing-engine-accounting-statistics* >

Usage

```
<accounting-record-information>
  <routing-engine-accounting-statistics>
    <routing-engine-accounting-record>...</routing-engine-accounting-record>
  </routing-engine-accounting-statistics>
</accounting-record-information>
```

Description No documentation is available yet.

Contents <routing-engine-accounting-record>—No documentation is available yet.

Summary of Alarm Response Tags

This section lists the tags returned by the JUNOScript server to describe alarms. The associated XML namespace is http://xml.juniper.net/junos/5.5R1/junos-alarm. To review the DTD for the tags, see "DTD for Alarm Response Tags" on page 1707.

< *alarm-detail* >

Usage

```
<alarm-information>
  <alarm-detail>
    <alarm-time>alarm-time</alarm-time>
    <alarm-class>alarm-class</alarm-class>
    <alarm-description>alarm-description</alarm-description>
  </alarm-detail>
</alarm-information>
```

Description Detail information about active alarms.

Contents <alarm-class>—Class of the alarm.

<alarm-description>—Description of the alarm.

<alarm-time>—Time of the alarm.

< *alarm-information* >

Usage

```
<rpc-reply>
  <alarm-information>
    <alarm-summary>...</alarm-summary>
    <alarm-detail>...</alarm-detail>
  </alarm-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <alarm-detail>—Detail information about active alarms.

<alarm-summary>—Summary of active alarms.

< *alarm-summary* >

Usage

```
<alarm-information>
  <alarm-summary>
    <active-alarm-count>active-alarm-count</active-alarm-count>
    <no-active-alarms/>
  </alarm-summary>
</alarm-information>
```

Description Summary of active alarms.

Contents <active-alarm-count>—Number of active alarms.

<no-active-alarms>—No active alarms.

Summary of Chassis Response Tags

This section lists the tags returned by the JUNOScript server to describe the router chassis. The associated XML namespace is http://xml.juniper.net/junos/5.5R1/junos-chassis. To review the DTD for the tags, see "DTD for Chassis Response Tags" on page 1709.

< *alarm-indicators* >

Usage

```
<front-panel>
  <alarm-indicators>
    <red-led/>
    <yellow-led/>
    <major-alarm-relay/>
    <minor-alarm-relay/>
  </alarm-indicators>
</front-panel>
```

Description Front panel alarm information.

Contents <major-alarm-relay>—Present if major alarm relay is active.

<minor-alarm-relay>—Present if minor alarm relay is active.

<red-led>—Present if the red LED is lit.

<yellow-led>—Present if the yellow LED is lit.

< *cb* >

Usage

```
<cb-panel>
  <cb>
    <slot>slot</slot>
    <amber-led/>
    <green-led/>
    <blue-led/>
  </cb>
</cb-panel>
```

Description No documentation is available yet.

Contents <amber-led>—Present if the amber LED is lit.

<blue-led>—Present if the blue LED is lit.

<green-led>—Present if the green LED is lit.

<slot>—No documentation is available yet.

< *cb-panel* >

Usage

```
<craft-information>
  <cb-panel>
    <cb>...</cb>
  </cb-panel>
</craft-information>
```

Description Display information for the CB panel.

Contents <cb>—No documentation is available yet.

< *chassis* >

Usage

```
<chassis-inventory | firmware-information>
  <chassis>
    <name>name</name>
    <version>version</version>
    <part-number>part-number</part-number>
    <serial-number>serial-number</serial-number>
    <description>description</description>
    <i2c-information>...</i2c-information>
    <chassis-module>...</chassis-module>
  </chassis>
</chassis-inventory | firmware-information>
```

Description Hardware inventory of this chassis.

Contents <chassis-module>—No documentation is available yet.

<description>—Description of this component.

<i2c-information>—No documentation is available yet.

<name>—Name of this component.

<part-number>—Part number of this component.

<serial-number>—Serial number of this component.

<version>—Version of this component.

< *chassis-inventory* >

Usage

```
<rpc-reply>
  <chassis-inventory>
    <chassis>...</chassis>
  </chassis-inventory>
</rpc-reply>
```

Description No documentation is available yet.

Contents <chassis>—Hardware inventory of this chassis.

< *chassis-module* >

Usage

```
<chassis>
  <chassis-module>
    <name>name</name>
    <version>version</version>
    <part-number>part-number</part-number>
    <serial-number>serial-number</serial-number>
    <description>description</description>
    <i2c-information>...</i2c-information>
    <firmware>...</firmware>
    <chassis-sub-module>...</chassis-sub-module>
  </chassis-module>
</chassis>
```

Description No documentation is available yet.

Contents <chassis-sub-module>—No documentation is available yet.

<description>—Description of this component.

<firmware>—No documentation is available yet.

<i2c-information>—No documentation is available yet.

<name>—Name of this component.

<part-number>—Part number of this component.

<serial-number>—Serial number of this component.

<version>—Version of this component.

< *chassis-sub-module* >

Usage

```
<chassis-module>
  <chassis-sub-module>
    <name>name</name>
    <version>version</version>
    <part-number>part-number</part-number>
    <serial-number>serial-number</serial-number>
    <description>description</description>
    <i2c-information>...</i2c-information>
    <firmware>...</firmware>
    <chassis-sub-sub-module>...</chassis-sub-sub-module>
  </chassis-sub-module>
</chassis-module>
```

Description No documentation is available yet.

Contents <chassis-sub-sub-module>—No documentation is available yet.

<description>—Description of this component.

<firmware>—No documentation is available yet.

<i2c-information>—No documentation is available yet.

<name>—Name of this component.

<part-number>—Part number of this component.

<serial-number>—Serial number of this component.

<version>—Version of this component.

< *chassis-sub-sub-module* >

Usage

```
<chassis-sub-module>
  <chassis-sub-sub-module>
    <name>name</name>
    <version>version</version>
    <part-number>part-number</part-number>
    <serial-number>serial-number</serial-number>
    <description>description</description>
  </chassis-sub-sub-module>
</chassis-sub-module>
```

Description No documentation is available yet.

Contents <description>—Description of this component.

<name>—Name of this component.

<part-number>—Part number of this component.

<serial-number>—Serial number of this component.

<version>—Version of this component.

< *craft-information* >

Usage

```
<rpc-reply>
  <craft-information>
    <front-panel>...</front-panel>
    <mcs-panel>...</mcs-panel>
    <sfm-panel>...</sfm-panel>
    <pcg-panel>...</pcg-panel>
    <cb-panel>...</cb-panel>
    <sib-panel>...</sib-panel>
    <scg-panel>...</scg-panel>
    <output>output</output>
  </craft-information>
</rpc-reply>
```

Description Craft interface information.

Contents <cb-panel>—Display information for the CB panel.

<front-panel>—Display information for the front panel.

<mcs-panel>—Display information for the CB panel.

<output>—No documentation is available yet.

<pcg-panel>—Display information for the PCG panel.

<scg-panel>—Display information for the SCG panel.

<sfm-panel>—Display information for the SFM panel.

<sib-panel>—Display information for the SIB panel.

< *display-panel* >

Usage

```
<front-panel>
  <display-panel>
    <display-line>display-line</display-line>
  </display-panel>
</front-panel>
```

Description Front panel display contents.

Contents <display-line>—A single line from the front panel display.

< *environment-information* >

Usage

```
<rpc-reply>
  <environment-information>
    <environment-item>...</environment-item>
  </environment-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <environment-item>—No documentation is available yet.

< *environment-item* >

Usage

```
<environment-information>
  <environment-item>
    <class>class</class>
    <name>name</name>
    <status>status</status>
    <temperature>temperature</temperature>
    <comment>comment</comment>
  </environment-item>
</environment-information>
```

Description No documentation is available yet.

Contents <class>—No documentation is available yet.

<comment>—No documentation is available yet.

<name>—Name of this component.

<status>—No documentation is available yet.

<temperature>—No documentation is available yet.

< *firmware* >

Usage

```
<chassis-module | chassis-sub-module>
  <firmware>
    <type>type</type>
    <firmware-version>firmware-version</firmware-version>
  </firmware>
</chassis-module | chassis-sub-module>
```

Description No documentation is available yet.

Contents <firmware-version>—Firmware version string for this component.

<type>—Type of this component.

< *firmware-information* >

Usage

```
<rpc-reply>
  <firmware-information>
    <chassis>...</chassis>
  </firmware-information>
</rpc-reply>
```

Description Information about component firmware versions.

Contents <chassis>—Hardware inventory of this chassis.

< *fpc* >

Usage

```
<fpc-information | fpc-panel>
  <fpc>
    <slot>slot</slot>
    <logical-slot>logical-slot</logical-slot>
    <state>state</state>
    <temperature>temperature</temperature>
    <cpu-total>cpu-total</cpu-total>
    <cpu-interrupt>cpu-interrupt</cpu-interrupt>
    <memory-dram-size>memory-dram-size</memory-dram-size>
    <memory-sram-size>memory-sram-size</memory-sram-size>
    <memory-sdram-size>memory-sdram-size</memory-sdram-size>
    <memory-notification-sdram-size>sdram-size</memory-notification-sdram-size>
    <memory-heap-utilization>memory-heap-utilization</memory-heap-utilization>
    <memory-buffer-utilization>memory-buffer-utilization</memory-buffer-utilization>
    <asic-information>asic-information</asic-information>
    <start-time>start-time</start-time>
    <up-time>up-time</up-time>
    <comment>comment</comment>
    <pic>...</pic>
    <pic-detail>...</pic-detail>
    <red-led/>
    <green-led/>
  </fpc>
</fpc-information | fpc-panel>
```

Description No documentation is available yet.

Contents

<asic-information>—No documentation is available yet.

<comment>—No documentation is available yet.

<cpu-interrupt>—Percentage of CPU utilized by interrupt processing.

<cpu-total>—Percentage utilization of CPU.

<green-led>—Present if the green LED is lit.

<logical-slot>—No documentation is available yet.

<memory-buffer-utilization>—Percentage utilization of buffer memory.

<memory-dram-size>—DRAM.

<memory-heap-utilization>—Percentage utilization of heap memory.

<memory-notification-sdram-size>—Notification SDRAM.

<memory-sdram-size>—SDRAM.

<memory-sram-size>—SRAM.

<pic>—No documentation is available yet.

<pic-detail>—No documentation is available yet.

<red-led>—Present if the red LED is lit.

<slot>—No documentation is available yet.

<start-time>—Time this component was started.

<state>—No documentation is available yet.

<temperature>—No documentation is available yet.

<up-time>—Length of time this component has been operational.

< *fpc-information* >

Usage

```
<rpc-reply>
  <fpc-information>
    <fpc>...</fpc>
  </fpc-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <fpc>—No documentation is available yet.

< *fpc-panel* >

Usage

```
<front-panel>
  <fpc-panel>
    <fpc>...</fpc>
  </fpc-panel>
</front-panel>
```

Description No documentation is available yet.

Contents <fpc>—No documentation is available yet.

< *front-panel* >

Usage

```
<craft-information>
  <front-panel>
    <display-panel>...</display-panel>
    <re-panel>...</re-panel>
    <alarm-indicators>...</alarm-indicators>
    <fpc-panel>...</fpc-panel>
  </front-panel>
</craft-information>
```

Description Display information for the front panel.

Contents <alarm-indicators>—Front panel alarm information.

<display-panel>—Front panel display contents.

<fpc-panel>—No documentation is available yet.

<re-panel>—Front panel Routing Engine information.

< i2c-information >

Usage

```
<chassis | chassis-module | chassis-sub-module>
  <i2c-information>
    <jedec-code>jedec-code</jedec-code>
    <eeprom-version>eeprom-version</eeprom-version>
    <part-number>part-number</part-number>
    <serial-number>serial-number</serial-number>
    <assembly-identifier>assembly-identifier</assembly-identifier>
    <assembly-version>assembly-version</assembly-version>
    <manufacture-date>manufacture-date</manufacture-date>
    <assembly-flags>assembly-flags</assembly-flags>
    <i2c-version>i2c-version</i2c-version>
    <i2c-identifier>i2c-identifier</i2c-identifier>
    <i2c-data>i2c-data</i2c-data>
    <board-information-record>board-information-record</board-information-record>
    <rma-record>rma-record</rma-record>
  </i2c-information>
</chassis | chassis-module | chassis-sub-module>
```

Description No documentation is available yet.

Contents

<assembly-flags>—No documentation is available yet.

<assembly-identifier>—No documentation is available yet.

<assembly-version>—No documentation is available yet.

<board-information-record>—Hex dump of board information record.

<eeprom-version>—No documentation is available yet.

<i2c-data>—Hex dump of I2C data.

<i2c-identifier>—No documentation is available yet.

<i2c-version>—No documentation is available yet.

<jedec-code>—No documentation is available yet.

<manufacture-date>—Date this component was manufactured.

<part-number>—Part number of this component.

<rma-record>—Hex dump of RMA record.

<serial-number>—Serial number of this component.

< *mcs* >

Usage

```
<mcs-panel>
  <mcs>
    <slot>slot</slot>
    <amber-led/>
    <green-led/>
    <blue-led/>
  </mcs>
</mcs-panel>
```

Description No documentation is available yet.

Contents <amber-led>—Present if the amber LED is lit.

<blue-led>—Present if the blue LED is lit.

<green-led>—Present if the green LED is lit.

<slot>—No documentation is available yet.

< *mcs-panel* >

Usage

```
<craft-information>
  <mcs-panel>
    <mcs>...</mcs>
  </mcs-panel>
</craft-information>
```

Description Display information for the CB panel.

Contents <mcs>—No documentation is available yet.

< *pcg* >

Usage

```
<pcg-panel>
  <pcg>
    <slot>slot</slot>
    <amber-led/>
    <green-led/>
    <blue-led/>
  </pcg>
</pcg-panel>
```

Description No documentation is available yet.

Contents <amber-led>—Present if the amber LED is lit.

<blue-led>—Present if the blue LED is lit.

<green-led>—Present if the green LED is lit.

<slot>—No documentation is available yet.

< *pcg-panel* >

Usage

```
<craft-information>
  <pcg-panel>
    <pcg>...</pcg>
  </pcg-panel>
</craft-information>
```

Description Display information for the PCG panel.

Contents <pcg>—No documentation is available yet.

< *pic* >

Usage

```
<fpc>
  <pic>
    <pic-slot>pic-slot</pic-slot>
    <pic-type>pic-type</pic-type>
    <comment>comment</comment>
  </pic>
</fpc>
```

Description No documentation is available yet.

Contents <comment>—No documentation is available yet.

<pic-slot>—No documentation is available yet.

<pic-type>—No documentation is available yet.

< *pic-detail* >

Usage

```
<fpc>
  <pic-detail>
    <slot>slot</slot>
    <pic-slot>pic-slot</pic-slot>
    <pic-type>pic-type</pic-type>
    <asic-type>asic-type</asic-type>
    <comment>comment</comment>
    <pic-version>pic-version</pic-version>
    <state>state</state>
    <cpu-total>cpu-total</cpu-total>
    <cpu-interrupt>cpu-interrupt</cpu-interrupt>
    <memory-buffer-utilization>memory-buffer-utilization</memory-buffer-utilization>
    <memory-heap-utilization>memory-heap-utilization</memory-heap-utilization>
    <memory-dram-size>memory-dram-size</memory-dram-size>
    <cpu-sw-version>cpu-sw-version</cpu-sw-version>
    <cpu-rom-version>cpu-rom-version</cpu-rom-version>
    <up-time>up-time</up-time>
    <port-information>...</port-information>
  </pic-detail>
</fpc>
```

Description No documentation is available yet.

Contents <asic-type>—Type of ASIC on the PIC.

<comment>—No documentation is available yet.

<cpu-interrupt>—Percentage of CPU utilized by interrupt processing.

<cpu-rom-version>—PIC ROM version.

<cpu-sw-version>—Version of operating system running on the PIC.

<cpu-total>—Percentage utilization of CPU.

<memory-buffer-utilization>—Percentage utilization of buffer memory.

<memory-dram-size>—DRAM.

<memory-heap-utilization>—Percentage utilization of heap memory.

<pic-slot>—No documentation is available yet.

<pic-type>—No documentation is available yet.

<pic-version>—PIC hardware version.

<port-information>—No documentation is available yet.

<slot>—No documentation is available yet.

<state>—No documentation is available yet.

<up-time>—Length of time this component has been operational.

< *port* >

Usage

```
<port-information>
  <port>
    <port-number>port-number</port-number>
    <cable-type>cable-type</cable-type>
  </port>
</port-information>
```

Description No documentation is available yet.

Contents <cable-type>—Port cable type.

<port-number>—Port number on the PIC.

< *port-information* >

Usage

```
<pic-detail>
  <port-information>
    <port>...</port>
  </port-information>
</pic-detail>
```

Description No documentation is available yet.

Contents <port>—No documentation is available yet.

< *re* >

Usage

```
<re-panel>
  <re>
    <slot>slot</slot>
    <ok-led/>
    <fail-led/>
    <master-led/>
  </re>
</re-panel>
```

Description No documentation is available yet.

Contents <fail-led>—Present if the Fail LED is lit.

<master-led>—Present if the Master LED is lit.

<ok-led>—Present if the OK LED is lit.

<slot>—No documentation is available yet.

< *re-panel* >

Usage

```
<front-panel>
  <re-panel>
    <re>...</re>
  </re-panel>
</front-panel>
```

Description Front panel Routing Engine information.

Contents <re>—No documentation is available yet.

< *route-engine* >

Usage

```
<route-engine-information>
  <route-engine>
    <description>description</description>
    <slot>slot</slot>
    <mastership-state>mastership-state</mastership-state>
    <mastership-priority>mastership-priority</mastership-priority>
    <temperature>temperature</temperature>
    <memory-dram-size>memory-dram-size</memory-dram-size>
    <memory-buffer-utilization>memory-buffer-utilization</memory-buffer-utilization>
    <cpu-user>cpu-user</cpu-user>
    <cpu-background>cpu-background</cpu-background>
    <cpu-system>cpu-system</cpu-system>
    <cpu-interrupt>cpu-interrupt</cpu-interrupt>
    <cpu-idle>cpu-idle</cpu-idle>
    <model>model</model>
    <serial-number>serial-number</serial-number>
    <start-time>start-time</start-time>
    <up-time>up-time</up-time>
    <load-average-one>load-average-one</load-average-one>
    <load-average-five>load-average-five</load-average-five>
    <load-average-fifteen>load-average-fifteen</load-average-fifteen>
    <bios-version>bios-version</bios-version>
  </route-engine>
</route-engine-information>
```

Description No documentation is available yet.

Contents

<bios-version>—Routing engine BIOS version.

<cpu-background>—Percentage utilization of CPU by background processes.

<cpu-idle>—Percentage of CPU idle time.

<cpu-interrupt>—Percentage of CPU utilized by interrupt processing.

<cpu-system>—Percentage utilization of CPU by the kernel.

<cpu-user>—Percentage utilization of CPU by user processes.

<description>—Description of this component.

<load-average-fifteen>—No documentation is available yet.

<load-average-five>—No documentation is available yet.

<load-average-one>—No documentation is available yet.

<mastership-priority>—Configured priority for mastership on this Routing Engine.

<mastership-state>—Current state of mastership on this Routing Engine.

<memory-buffer-utilization>—Percentage utilization of buffer memory.

<memory-dram-size>—DRAM.

<model>—No documentation is available yet.

<serial-number>—Serial number of this component.

<slot>—No documentation is available yet.

<start-time>—Time this component was started.

<temperature>—No documentation is available yet.

<up-time>—Length of time this component has been operational.

< *route-engine-information* >

Usage

```
<rpc-reply>
  <route-engine-information>
    <route-engine>...</route-engine>
  </route-engine-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <route-engine>—No documentation is available yet.

< *scb* >

Usage

```
<scb-information>
  <scb>
    <slot>slot</slot>
    <state>state</state>
    <failover-count>failover-count</failover-count>
    <reset-count>reset-count</reset-count>
    <activate-count>activate-count</activate-count>
    <temperature>temperature</temperature>
    <spp-temperature>spp-temperature</spp-temperature>
    <spr-temperature>spr-temperature</spr-temperature>
    <cpu-total>cpu-total</cpu-total>
    <cpu-interrupt>cpu-interrupt</cpu-interrupt>
    <memory-dram-size>memory-dram-size</memory-dram-size>
    <memory-sram-size>memory-sram-size</memory-sram-size>
    <memory-heap-utilization>memory-heap-utilization</memory-heap-utilization>
    <memory-buffer-utilization>memory-buffer-utilization</memory-buffer-utilization>
    <asic-name>asic-name</asic-name>
    <asic-information>asic-information</asic-information>
    <start-time>start-time</start-time>
    <up-time>up-time</up-time>
    <comment>comment</comment>
  </scb>
</scb-information>
```

Description No documentation is available yet.

Contents <activate-count>—No documentation is available yet.

<asic-information>—No documentation is available yet.

<asic-name>—No documentation is available yet.

<comment>—No documentation is available yet.

<cpu-interrupt>—Percentage of CPU utilized by interrupt processing.

<cpu-total>—Percentage utilization of CPU.

<failover-count>—No documentation is available yet.

<memory-buffer-utilization>—Percentage utilization of buffer memory.

<memory-dram-size>—DRAM.

<memory-heap-utilization>—Percentage utilization of heap memory.

<memory-sram-size>—SRAM.

<reset-count>—No documentation is available yet.

<slot>—No documentation is available yet.

<spp-temperature>—No documentation is available yet.

<spr-temperature>—No documentation is available yet.

<start-time>—Time this component was started.

<state>—No documentation is available yet.

<temperature>—No documentation is available yet.

<up-time>—Length of time this component has been operational.

< scb-information >

Usage

```
<rpc-reply>
  <scb-information>
    <scb-type>scb-type</scb-type>
    <scb>...</scb>
  </scb-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <scb>—No documentation is available yet.

<scb-type>—No documentation is available yet.

< *scg* >

Usage

```
<scg-panel>
  <scg>
    <slot>slot</slot>
    <amber-led/>
    <green-led/>
    <blue-led/>
  </scg>
</scg-panel>
```

Description No documentation is available yet.

Contents <amber-led>—Present if the amber LED is lit.

<blue-led>—Present if the blue LED is lit.

<green-led>—Present if the green LED is lit.

<slot>—No documentation is available yet.

< *scg-panel* >

Usage

```
<craft-information>
  <scg-panel>
    <scg>...</scg>
  </scg-panel>
</craft-information>
```

Description Display information for the SCG panel.

Contents <scg>—No documentation is available yet.

< *sfm* >

Usage

```
<sfm-panel>
  <sfm>
    <slot>slot</slot>
    <amber-led/>
    <green-led/>
    <blue-led/>
  </sfm>
</sfm-panel>
```

Description No documentation is available yet.

Contents <amber-led>—Present if the amber LED is lit.

<blue-led>—Present if the blue LED is lit.

<green-led>—Present if the green LED is lit.

<slot>—No documentation is available yet.

< *sfm-panel* >

Usage

```
<craft-information>
  <sfm-panel>
    <sfm>...</sfm>
  </sfm-panel>
</craft-information>
```

Description Display information for the SFM panel.

Contents <sfm>—No documentation is available yet.

< *sib-panel* >

Usage

```
<craft-information>
  <sib-panel>
  </sib-panel>
</craft-information>
```

Description Display information for the SIB panel.

Contents

Summary of Class-of-Service Response Tags

This section lists the tags returned by the JUNOScript server to describe class-of-service settings. The associated XML namespace is http://xml.juniper.net/junos/5.5R1/junos-cos. To review the DTD for the tags, see "DTD for Class-of-Service Response Tags" on page 1715.

< *alias-map* >

Usage

```
<code-point-map>
  <alias-map>
    <alias-map-item>...</alias-map-item>
  </alias-map>
</code-point-map>
```

Description No documentation is available yet.

Contents <alias-map-item>—No documentation is available yet.

< *alias-map-item* >

Usage

```
<alias-map>
  <alias-map-item>
    <code-point-bits>code-point-bits</code-point-bits>
    <code-point-alias>code-point-alias</code-point-alias>
  </alias-map-item>
</alias-map>
```

Description No documentation is available yet.

Contents <code-point-alias>—Class-of-service code point alias name.

<code-point-bits>—Class-of-service code point bit sequence.

< *classifier* >

Usage

```
<cos-classifier-information>
  <classifier>
    <classifier-name>classifier-name</classifier-name>
    <code-point-type>code-point-type</code-point-type>
    <table-index>table-index</table-index>
    <classifier-map>...</classifier-map>
  </classifier>
</cos-classifier-information>
```

Description Class-of-service code point classifier.

Contents <classifier-map>—No documentation is available yet.

<classifier-name>—Class-of-service classifier name.

<code-point-type>—Class-of-service code point type.

<table-index>—Table index.

< *classifier-map* >

Usage

```
<classifier>
  <classifier-map>
    <classifier-map-item>...</classifier-map-item>
  </classifier-map>
</classifier>
```

Description No documentation is available yet.

Contents <classifier-map-item>—No documentation is available yet.

< *classifier-map-item* >

Usage

```
<classifier-map>
  <classifier-map-item>
    <code-point>code-point</code-point>
    <fc-name>fc-name</fc-name>
    <loss-priority>loss-priority</loss-priority>
  </classifier-map-item>
</classifier-map>
```

Description No documentation is available yet.

Contents <code-point>—Class-of-service code point alias name or bits.

<fc-name>—Class-of-service forwarding class name.

<loss-priority>—Class-of-service loss priority.

< *classifier-table* >

Usage

```
<cos-classifier-table-information>
  <classifier-table>
    <table-index>table-index</table-index>
    <number-of-entries>number-of-entries</number-of-entries>
    <table-type>table-type</table-type>
    <classifier-table-entry>...</classifier-table-entry>
  </classifier-table>
</cos-classifier-table-information>
```

Description No documentation is available yet.

Contents <classifier-table-entry>—No documentation is available yet.

<number-of-entries>—Number of entries in an output list.

<table-index>—Table index.

<table-type>—Table type.

< *classifier-table-entry* >

Usage

```
<classifier-table>
  <classifier-table-entry>
    <table-index>table-index</table-index>
    <code-point>code-point</code-point>
    <fc-queue-number>fc-queue-number</fc-queue-number>
    <loss-priority>loss-priority</loss-priority>
  </classifier-table-entry>
</classifier-table>
```

Description No documentation is available yet.

Contents <code-point>—Class-of-service code point alias name or bits.

<fc-queue-number>—Class-of-service forwarding class queue number.

<loss-priority>—Class-of-service loss priority.

<table-index>—Table index.

< *classifier-table-map* >

Usage

```
<cos-classifier-table-map-information>
  <classifier-table-map>
    <table-index>table-index</table-index>
    <table-type>table-type</table-type>
    <logical-interface>logical-interface</logical-interface>
    <logical-interface-index>logical-interface-index</logical-interface-index>
  </classifier-table-map>
</cos-classifier-table-map-information>
```

Description No documentation is available yet.

Contents <logical-interface>—Logical interface name.

<logical-interface-index>—Logical interface index.

<table-index>—Table index.

<table-type>—Table type.

< *code-point-map* >

Usage

```
<cos-code-point-map-information>
  <code-point-map>
    <code-point-type>code-point-type</code-point-type>
    <alias-map>...</alias-map>
  </code-point-map>
</cos-code-point-map-information>
```

Description Class-of-service code point alias map.

Contents <alias-map>—No documentation is available yet.

<code-point-type>—Class-of-service code point type.

< *cos-classifier-information* >

Usage

```
<cos-information>
  <cos-classifier-information>
    <classifier>...</classifier>
  </cos-classifier-information>
</cos-information>
```

Description No documentation is available yet.

Contents <classifier>—Class-of-service code point classifier.

< *cos-classifier-table-information* >

Usage

```
<cos-table-information>
  <cos-classifier-table-information>
    <classifier-table>...</classifier-table>
  </cos-classifier-table-information>
</cos-table-information>
```

Description No documentation is available yet.

Contents <classifier-table>—No documentation is available yet.

< *cos-classifier-table-map-information* >

Usage

```
<cos-table-information>
  <cos-classifier-table-map-information>
    <classifier-table-map>...</classifier-table-map>
  </cos-classifier-table-map-information>
</cos-table-information>
```

Description No documentation is available yet.

Contents <classifier-table-map>—No documentation is available yet.

< *cos-code-point-map-information* >

Usage

```
<cos-information>
  <cos-code-point-map-information>
    <code-point-map>...</code-point-map>
  </cos-code-point-map-information>
</cos-information>
```

Description No documentation is available yet.

Contents <code-point-map>—Class-of-service code point alias map.

< *cos-drop-profile-information* >

Usage

```
<cos-information>
  <cos-drop-profile-information>
    <drop-profile>...</drop-profile>
  </cos-drop-profile-information>
</cos-information>
```

Description No documentation is available yet.

Contents <drop-profile>—Class-of-service drop profile.

< *cos-fabric-scheduler-map-information* >

Usage

```
<rpc-reply>
  <cos-fabric-scheduler-map-information>
    <fabric-scheduler-map>...</fabric-scheduler-map>
  </cos-fabric-scheduler-map-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <fabric-scheduler-map>—No documentation is available yet.

< *cos-fabric-scheduler-map-table-information* >

Usage

```
<rpc-reply>
  <cos-fabric-scheduler-map-table-information>
    <fabric-scheduler-map-table>...</fabric-scheduler-map-table>
  </cos-fabric-scheduler-map-table-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <fabric-scheduler-map-table>—No documentation is available yet.

< *cos-forwarding-class-information* >

Usage

```
<cos-information>
  <cos-forwarding-class-information>
    <fc-map>...</fc-map>
  </cos-forwarding-class-information>
</cos-information>
```

Description No documentation is available yet.

Contents <fc-map>—Class-of-service forwarding class to queue mapping.

< *cos-information* >

Usage

```
<rpc-reply>
  <cos-information>
    <cos-forwarding-class-information>...</cos-forwarding-class-information>
    <cos-classifier-information>...</cos-classifier-information>
    <cos-drop-profile-information>...</cos-drop-profile-information>
    <cos-rewrite-information>...</cos-rewrite-information>
    <cos-code-point-map-information>...</cos-code-point-map-information>
  </cos-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <cos-classifier-information>—No documentation is available yet.

<cos-code-point-map-information>—No documentation is available yet.

<cos-drop-profile-information>—No documentation is available yet.

<cos-forwarding-class-information>—No documentation is available yet.

<cos-rewrite-information>—No documentation is available yet.

< *cos-interface-information* >

Usage

```
<rpc-reply>
  <cos-interface-information>
    <interface-map>...</interface-map>
  </cos-interface-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <interface-map>—Class-of-service interface mappings.

< *cos-policer-table-map-information* >

Usage

```
<cos-table-information>
  <cos-policer-table-map-information>
    <policer-table-map>...</policer-table-map>
  </cos-policer-table-map-information>
</cos-table-information>
```

Description No documentation is available yet.

Contents <policer-table-map>—No documentation is available yet.

< *cos-red-information* >

Usage

```
<cos-table-information>
  <cos-red-information>
    <red>...</red>
  </cos-red-information>
</cos-table-information>
```

Description No documentation is available yet.

Contents <red>—No documentation is available yet.

< *cos-rewrite-information* >

Usage

```
<cos-information>
  <cos-rewrite-information>
    <rewrite>...</rewrite>
  </cos-rewrite-information>
</cos-information>
```

Description No documentation is available yet.

Contents <rewrite>—Class-of-service drop profile.

< *cos-rewrite-table-information* >

Usage

```
<cos-table-information>
  <cos-rewrite-table-information>
    <rewrite-table>...</rewrite-table>
  </cos-rewrite-table-information>
</cos-table-information>
```

Description No documentation is available yet.

Contents <rewrite-table>—No documentation is available yet.

< *cos-rewrite-table-map-information* >

Usage

```
<cos-table-information>
  <cos-rewrite-table-map-information>
    <rewrite-table-map>...</rewrite-table-map>
  </cos-rewrite-table-map-information>
</cos-table-information>
```

Description No documentation is available yet.

Contents <rewrite-table-map>—No documentation is available yet.

< *cos-scheduler-map-information* >

Usage

```
<rpc-reply>
  <cos-scheduler-map-information>
    <scheduler-map>...</scheduler-map>
  </cos-scheduler-map-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <scheduler-map>—Class-of-service scheduler map.

< *cos-scheduler-map-table-information* >

Usage

```
<cos-table-information>
  <cos-scheduler-map-table-information>
    <policy>...</policy>
  </cos-scheduler-map-table-information>
</cos-table-information>
```

Description No documentation is available yet.

Contents <policy>—No documentation is available yet.

< *cos-shaper-table-map-information* >

Usage

```
<cos-table-information>
  <cos-shaper-table-map-information>
    <shaper-table-map>...</shaper-table-map>
  </cos-shaper-table-map-information>
</cos-table-information>
```

Description No documentation is available yet.

Contents <shaper-table-map>—No documentation is available yet.

< *cos-table-information* >

Usage

```
<rpc-reply>
  <cos-table-information>
    <cos-classifier-table-information>...</cos-classifier-table-information>
    <cos-classifier-table-map-information>...</cos-classifier-table-map-information>
    <cos-scheduler-map-table-information>...</cos-scheduler-map-table-information>
    <cos-red-information>...</cos-red-information>
    <cos-rewrite-table-information>...</cos-rewrite-table-information>
    <cos-rewrite-table-map-information>...</cos-rewrite-table-map-information>
    <cos-policer-table-map-information>...</cos-policer-table-map-information>
    <cos-shaper-table-map-information>...</cos-shaper-table-map-information>
  </cos-table-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <cos-classifier-table-information>—No documentation is available yet.

<cos-classifier-table-map-information>—No documentation is available yet.

<cos-policer-table-map-information>—No documentation is available yet.

<cos-red-information>—No documentation is available yet.

<cos-rewrite-table-information>—No documentation is available yet.

<cos-rewrite-table-map-information>—No documentation is available yet.

<cos-scheduler-map-table-information>—No documentation is available yet.

<cos-shaper-table-map-information>—No documentation is available yet.

< *drop-profile* >

Usage

```
<cos-drop-profile-information>
  <drop-profile>
    <profile-name>profile-name</profile-name>
    <profile-type>profile-type</profile-type>
    <table-index>table-index</table-index>
    <profile-map>...</profile-map>
  </drop-profile>
</cos-drop-profile-information>
```

Description Class-of-service drop profile.

Contents <profile-map>—No documentation is available yet.

<profile-name>—Class-of-service drop profile name.

<profile-type>—Class-of-service drop profile type.

<table-index>—Table index.

< *fabric-queue-information* >

Usage

```
<rpc-reply>
  <fabric-queue-information>
    <fpc-queue-information>...</fpc-queue-information>
  </fabric-queue-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <fpc-queue-information>—Show fabric queuing information for an FPC.

< *fabric-scheduler* >

Usage

```
<fabric-scheduler-map>
  <fabric-scheduler>
    <fabric-scheduler-name>fabric-scheduler-name</fabric-scheduler-name>
    <fabric-scheduler-index>fabric-scheduler-index</fabric-scheduler-index>
    <fabric-scheduler-drop-profile-ln-index>ln-index</fabric-scheduler-drop-profile-ln-index>
    <fabric-scheduler-drop-profile-ln>drop-profile-ln</fabric-scheduler-drop-profile-ln>
    <fabric-scheduler-drop-profile-lt-index>lt-index</fabric-scheduler-drop-profile-lt-index>
    <fabric-scheduler-drop-profile-lt>drop-profile-lt</fabric-scheduler-drop-profile-lt>
    <fabric-scheduler-drop-profile-hn-index>index</fabric-scheduler-drop-profile-hn-index>
    <fabric-scheduler-drop-profile-hn>drop-profile-hn</fabric-scheduler-drop-profile-hn>
    <fabric-scheduler-drop-profile-ht-index>ht-index</fabric-scheduler-drop-profile-ht-index>
    <fabric-scheduler-drop-profile-ht>drop-profile-ht</fabric-scheduler-drop-profile-ht>
  </fabric-scheduler>
</fabric-scheduler-map>
```

Description No documentation is available yet.

Contents <fabric-scheduler-drop-profile-hn>—Class-of-service scheduler drop profile high, non-TCP.

<fabric-scheduler-drop-profile-hn-index>—Class-of-service scheduler drop profile index high, non-TCP.

<fabric-scheduler-drop-profile-ht>—Class-of-service scheduler drop profile high, TCP.

<fabric-scheduler-drop-profile-ht-index>—Class-of-service scheduler drop profile index high, TCP.

<fabric-scheduler-drop-profile-ln>—Class-of-service scheduler drop profile low, non-TCP.

<fabric-scheduler-drop-profile-ln-index>—Class-of-service scheduler drop profile index low, non-TCP.

<fabric-scheduler-drop-profile-lt>—Class-of-service scheduler drop profile low, TCP.

<fabric-scheduler-drop-profile-lt-index>—Class-of-service scheduler drop profile index low, TCP.

<fabric-scheduler-index>—Class of service scheduler index.

<fabric-scheduler-name>—Class-of-service scheduler name.

< *fabric-scheduler-map* >

Usage

```
<cos-fabric-scheduler-map-information>
  <fabric-scheduler-map>
    <fabric-scheduler-priority>fabric-scheduler-priority</fabric-scheduler-priority>
    <fabric-scheduler>...</fabric-scheduler>
  </fabric-scheduler-map>
</cos-fabric-scheduler-map-information>
```

Description No documentation is available yet.

Contents <fabric-scheduler>—No documentation is available yet.

<fabric-scheduler-priority>—No documentation is available yet.

< *fabric-scheduler-map-table* >

Usage

```
<cos-fabric-scheduler-map-table-information>
  <fabric-scheduler-map-table>
    <fabric-scheduler-priority>fabric-scheduler-priority</fabric-scheduler-priority>
    <fabric-scheduler-table>...</fabric-scheduler-table>
  </fabric-scheduler-map-table>
</cos-fabric-scheduler-map-table-information>
```

Description No documentation is available yet.

Contents <fabric-scheduler-priority>—No documentation is available yet.

<fabric-scheduler-table>—No documentation is available yet.

< *fabric-scheduler-table* >

Usage

```
<fabric-scheduler-map-table>
  <fabric-scheduler-table>
    <fabric-scheduler-index>fabric-scheduler-index</fabric-scheduler-index>
    <fabric-scheduler-drop-profile-hn-index>index</fabric-scheduler-drop-profile-hn-index>
    <fabric-scheduler-drop-profile-ln-index>ln-index</fabric-scheduler-drop-profile-ln-index>
    <fabric-scheduler-drop-profile-ht-index>ht-index</fabric-scheduler-drop-profile-ht-index>
    <fabric-scheduler-drop-profile-lt-index>lt-index</fabric-scheduler-drop-profile-lt-index>
  </fabric-scheduler-table>
</fabric-scheduler-map-table>
```

Description No documentation is available yet.

Contents <fabric-scheduler-drop-profile-hn-index>—Class-of-service scheduler drop profile index high, non-TCP.

<fabric-scheduler-drop-profile-ht-index>—Class-of-service scheduler drop profile index high, TCP.

<fabric-scheduler-drop-profile-ln-index>—Class-of-service scheduler drop profile index low, non-TCP.

<fabric-scheduler-drop-profile-lt-index>—Class-of-service scheduler drop profile index low, TCP.

<fabric-scheduler-index>—Class of service scheduler index.

< *fc-map* >

Usage

```
<cos-forwarding-class-information>
  <fc-map>
    <fc-map-item>...</fc-map-item>
  </fc-map>
</cos-forwarding-class-information>
```

Description Class-of-service forwarding class to queue mapping.

Contents <fc-map-item>—No documentation is available yet.

< *fc-map-item* >

Usage

```
<fc-map>
  <fc-map-item>
    <fc-name>fc-name</fc-name>
    <fc-queue-number>fc-queue-number</fc-queue-number>
    <fc-priority>fc-priority</fc-priority>
  </fc-map-item>
</fc-map>
```

Description No documentation is available yet.

Contents <fc-name>—Class-of-service forwarding class name.

<fc-priority>—Class-of-service forwarding class queue priority.

<fc-queue-number>—Class-of-service forwarding class queue number.

< *fpc-queue-information* >

Usage

```
<fabric-queue-information>
  <fpc-queue-information>
    <dest-fpc-index>dest-fpc-index</dest-fpc-index>
    <src-fpc-index>src-fpc-index</src-fpc-index>
    <queue-information>...</queue-information>
  </fpc-queue-information>
</fabric-queue-information>
```

Description Show fabric queuing information for an FPC.

Contents <dest-fpc-index>—Destination FPC index.

<queue-information>—No documentation is available yet.

<src-fpc-index>—Source FPC index.

< *i-logical-map* >

Usage

```
<interface-map>
  <i-logical-map>
    <i-logical-name>i-logical-name</i-logical-name>
    <i-logical-index>i-logical-index</i-logical-index>
    <policer-bandwidth>policer-bandwidth</policer-bandwidth>
    <policer-burst>policer-burst</policer-burst>
    <shaper-bandwidth>shaper-bandwidth</shaper-bandwidth>
    <shaper-burst>shaper-burst</shaper-burst>
    <i-logical-objects>...</i-logical-objects>
  </i-logical-map>
</interface-map>
```

Description No documentation is available yet.

Contents <i-logical-index>—Class-of-service logical interface index.

<i-logical-name>—Class-of-service logical interface name.

<i-logical-objects>—Class-of-service logical interface mappings.

<policer-bandwidth>—Class-of-service logical interface policer bandwidth.

<policer-burst>—Class-of-service logical interface policer burst.

<shaper-bandwidth>—Class-of-service logical interface shaper bandwidth.

<shaper-burst>—Class-of-service logical interface shaper burst.

< *i-logical-objects* >

Usage

```
<i-logical-map>
  <i-logical-objects>
    <i-logical-object-type>i-logical-object-type</i-logical-object-type>
    <i-logical-object-name>i-logical-object-name</i-logical-object-name>
    <i-logical-object-subtype>i-logical-object-subtype</i-logical-object-subtype>
    <i-logical-object-index>i-logical-object-index</i-logical-object-index>
  </i-logical-objects>
</i-logical-map>
```

Description Class-of-service logical interface mappings.

Contents <i-logical-object-index>—Class-of-service logical interface object index.

<i-logical-object-name>—Class-of-service logical interface object name.

<i-logical-object-subtype>—Class-of-service logical interface object subtype.

<i-logical-object-type>—Class-of-service logical interface object type.

< *interface-map* >

Usage

```
<cos-interface-information>
  <interface-map>
    <interface-name>interface-name</interface-name>
    <interface-index>interface-index</interface-index>
    <scheduler-map-name>scheduler-map-name</scheduler-map-name>
    <scheduler-map-index>scheduler-map-index</scheduler-map-index>
    <i-logical-map>...</i-logical-map>
  </interface-map>
</cos-interface-information>
```

Description Class-of-service interface mappings.

Contents <i-logical-map>—No documentation is available yet.

<interface-index>—Class-of-service interface index.

<interface-name>—Class-of-service interface name.

<scheduler-map-index>—Class-of-service scheduler map index.

<scheduler-map-name>—Class-of-service scheduler map name.

< *policer-table-map* >

Usage

```
<cos-policer-table-map-information>
  <policer-table-map>
    <p-interface>p-interface</p-interface>
    <p-interface-index>p-interface-index</p-interface-index>
    <policer-bandwidth>policer-bandwidth</policer-bandwidth>
    <policer-burst>policer-burst</policer-burst>
  </policer-table-map>
</cos-policer-table-map-information>
```

Description No documentation is available yet.

Contents <p-interface>—No documentation is available yet.

<p-interface-index>—No documentation is available yet.

<policer-bandwidth>—Class-of-service logical interface policer bandwidth.

<policer-burst>—Class-of-service logical interface policer burst.

< *policy* >

Usage

```
<cos-scheduler-map-table-information>
  <policy>
    <interface>interface</interface>
    <interface-index>interface-index</interface-index>
    <policy-index>policy-index</policy-index>
    <policy-number-of-queues>policy-number-of-queues</policy-number-of-queues>
    <policy-entry>...</policy-entry>
  </policy>
</cos-scheduler-map-table-information>
```

Description No documentation is available yet.

Contents <interface>—No documentation is available yet.

<interface-index>—Class-of-service interface index.

<policy-entry>—No documentation is available yet.

<policy-index>—No documentation is available yet.

<policy-number-of-queues>—Number of queues in this policy.

< *policy-entry* >

Usage

```
<policy>
  <policy-entry>
    <table-index>table-index</table-index>
    <policy-entry-identifier>policy-entry-identifier</policy-entry-identifier>
    <fc-queue-number>fc-queue-number</fc-queue-number>
    <policy-transmit-rate>policy-transmit-rate</policy-transmit-rate>
    <policy-transmit-rate-percentage>rate-percentage</policy-transmit-rate-percentage>
    <policy-transmit-rate-remainder>rate-remainder</policy-transmit-rate-remainder>
    <policy-buffer-size-percentage>size-percentage</policy-buffer-size-percentage>
    <policy-buffer-size-remainder>size-remainder</policy-buffer-size-remainder>
    <policy-high-priority>policy-high-priority</policy-high-priority>
    <policy-strict-high-priority>policy-strict-high-priority</policy-strict-high-priority>
    <policy-packet-loss-profile>...</policy-packet-loss-profile>
    <policy-exact>policy-exact</policy-exact>
  </policy-entry>
</policy>
```

Description No documentation is available yet.

Contents <fc-queue-number>—Class-of-service forwarding class queue number.

<policy-buffer-size-percentage>—Buffer size percentage.

<policy-buffer-size-remainder>—Buffer size is remainder.

<policy-entry-identifier>—Policy entry ID number.

<policy-exact>—Policy is exact Boolean.

<policy-high-priority>—High-priority Boolean.

<policy-packet-loss-profile>—No documentation is available yet.

<policy-strict-high-priority>—Strict high-priority Boolean.

<policy-transmit-rate>—Transmit rate.

<policy-transmit-rate-percentage>—Transmit rate percentage.

<policy-transmit-rate-remainder>—Transmit rate is remainder.

<table-index>—Table index.

< *policy-packet-loss-profile* >

Usage

```
<policy-entry>
  <policy-packet-loss-profile>
    <high-drop-profile-identifier>high-drop-profile-identifier</high-drop-profile-identifier>
    <low-drop-profile-identifier>low-drop-profile-identifier</low-drop-profile-identifier>
    <tcp-high-drop-profile-identifier>drop-profile-identifier</tcp-high-drop-profile-identifier>
    <tcp-low-drop-profile-identifier>drop-profile-identifier</tcp-low-drop-profile-identifier>
  </policy-packet-loss-profile>
</policy-entry>
```

Description No documentation is available yet.

Contents <high-drop-profile-identifier>—PLP high drop profile ID.

<low-drop-profile-identifier>—PLP low drop profile ID.

<tcp-high-drop-profile-identifier>—TCP PLP high drop profile ID.

<tcp-low-drop-profile-identifier>—TCP PLP low drop profile ID.

< *profile-map* >

Usage

```
<drop-profile>
  <profile-map>
    <profile-map-item>...</profile-map-item>
  </profile-map>
</drop-profile>
```

Description No documentation is available yet.

Contents <profile-map-item>—No documentation is available yet.

< *profile-map-item* >

Usage

```
<profile-map>
  <profile-map-item>
    <fill-level>fill-level</fill-level>
    <probability>probability</probability>
  </profile-map-item>
</profile-map>
```

Description No documentation is available yet.

Contents <fill-level>—Class-of-service drop profile fill level value.

<probability>—Class-of-service drop profile probability value.

< *queue-information* >

Usage

```
<fpc-queue-information>
  <queue-information>
    <queue-information-item>...</queue-information-item>
  </queue-information>
</fpc-queue-information>
```

Description No documentation is available yet.

Contents <queue-information-item>—No documentation is available yet.

< *queue-information-item* >

Usage

```
<queue-information>
  <queue-information-item>
    <total-pkts-high>total-pkts-high</total-pkts-high>
    <total-bytes-high>total-bytes-high</total-bytes-high>
    <total-pkts-low>total-pkts-low</total-pkts-low>
    <total-bytes-low>total-bytes-low</total-bytes-low>
    <total-pps-high>total-pps-high</total-pps-high>
    <total-bps-high>total-bps-high</total-bps-high>
    <total-pps-low>total-pps-low</total-pps-low>
    <total-bps-low>total-bps-low</total-bps-low>
    <tx-pkts-high>tx-pkts-high</tx-pkts-high>
    <tx-bytes-high>tx-bytes-high</tx-bytes-high>
    <tx-pkts-low>tx-pkts-low</tx-pkts-low>
    <tx-bytes-low>tx-bytes-low</tx-bytes-low>
    <tx-pps-high>tx-pps-high</tx-pps-high>
    <tx-bps-high>tx-bps-high</tx-bps-high>
    <tx-pps-low>tx-pps-low</tx-pps-low>
    <tx-bps-low>tx-bps-low</tx-bps-low>
    <drop-pkts-high>drop-pkts-high</drop-pkts-high>
    <drop-bytes-high>drop-bytes-high</drop-bytes-high>
    <drop-pkts-low>drop-pkts-low</drop-pkts-low>
    <drop-bytes-low>drop-bytes-low</drop-bytes-low>
    <drop-pps-high>drop-pps-high</drop-pps-high>
    <drop-bps-high>drop-bps-high</drop-bps-high>
    <drop-pps-low>drop-pps-low</drop-pps-low>
    <drop-bps-low>drop-bps-low</drop-bps-low>
  </queue-information-item>
</queue-information>
```

Description No documentation is available yet.

Contents <drop-bps-high>—Dropped bytes per second count for high-priority queue.

<drop-bps-low>—Dropped bytes per second count for low-priority queue.

<drop-bytes-high>—Dropped byte count for high-priority queue.

<drop-bytes-low>—Dropped byte count for low-priority queue.

<drop-pkts-high>—Dropped packet count for high-priority queue.

<drop-pkts-low>—Dropped packet count for low-priority queue.

<drop-pps-high>—Dropped packets per second count for high-priority queue.

<drop-pps-low>—Dropped packets per second count for low-priority queue.

<total-bps-high>—Total bytes per second count for high-priority queue.

<total-bps-low>—Total bytes per second count for low-priority queue.

<total-bytes-high>—Total byte count for high-priority queue.

<total-bytes-low>—Total byte count for low-priority queue.

<total-pkts-high>—Total packet count for high-priority queue.

<total-pkts-low>—Total packet count for low-priority queue.

<total-pps-high>—Total packets per second count for high-priority queue.

<total-pps-low>—Total packets per second count for low-priority queue.

<tx-bps-high>—Transmitted bytes per second count for high-priority queue.

<tx-bps-low>—Transmitted bytes per second count for low-priority queue.

<tx-bytes-high>—Transmitted byte count for high-priority queue.

<tx-bytes-low>—Transmitted byte count for low-priority queue.

<tx-pkts-high>—Transmitted packet count for high-priority queue.

<tx-pkts-low>—Transmitted packet count for low-priority queue.

<tx-pps-high>—Transmitted packets per second count for high-priority queue.

<tx-pps-low>—Transmitted packets per second count for low-priority queue.

< *red* >

Usage

```
<cos-red-information>
  <red>
    <red-drop-profile-identifier>red-drop-profile-identifier</red-drop-profile-identifier>
    <number-of-entries>number-of-entries</number-of-entries>
    <red-entry>...</red-entry>
  </red>
</cos-red-information>
```

Description No documentation is available yet.

Contents <number-of-entries>—Number of entries in an output list.

<red-drop-profile-identifier>—No documentation is available yet.

<red-entry>—No documentation is available yet.

< *red-entry* >

Usage

```
<red>
  <red-entry>
    <red-entry-index>red-entry-index</red-entry-index>
    <red-fullness>red-fullness</red-fullness>
    <red-drop-probability>red-drop-probability</red-drop-probability>
  </red-entry>
</red>
```

Description No documentation is available yet.

Contents <red-drop-probability>—No documentation is available yet.

<red-entry-index>—No documentation is available yet.

<red-fullness>—No documentation is available yet.

< *rewrite* >

Usage

```
<cos-rewrite-information>
  <rewrite>
    <rewrite-name>rewrite-name</rewrite-name>
    <code-point-type>code-point-type</code-point-type>
    <table-index>table-index</table-index>
    <rewrite-map>...</rewrite-map>
  </rewrite>
</cos-rewrite-information>
```

Description Class-of-service drop profile.

Contents <code-point-type>—Class-of-service code point type.

<rewrite-map>—No documentation is available yet.

<rewrite-name>—Class-of-service rewrite rule name.

<table-index>—Table index.

< *rewrite-map* >

Usage

```
<rewrite>
  <rewrite-map>
    <rewrite-map-item>...</rewrite-map-item>
  </rewrite-map>
</rewrite>
```

Description No documentation is available yet.

Contents <rewrite-map-item>—No documentation is available yet.

< *rewrite-map-item* >

Usage

```
<rewrite-map>
  <rewrite-map-item>
    <code-point>code-point</code-point>
    <fc-name>fc-name</fc-name>
    <loss-priority>loss-priority</loss-priority>
  </rewrite-map-item>
</rewrite-map>
```

Description No documentation is available yet.

Contents <code-point>—Class-of-service code point alias name or bits.

<fc-name>—Class-of-service forwarding class name.

<loss-priority>—Class-of-service loss priority.

< *rewrite-table* >

Usage

```
<cos-rewrite-table-information>
  <rewrite-table>
    <table-index>table-index</table-index>
    <number-of-entries>number-of-entries</number-of-entries>
    <table-type>table-type</table-type>
    <rewrite-table-entry>...</rewrite-table-entry>
  </rewrite-table>
</cos-rewrite-table-information>
```

Description No documentation is available yet.

Contents <number-of-entries>—Number of entries in an output list.

<rewrite-table-entry>—No documentation is available yet.

<table-index>—Table index.

<table-type>—Table type.

< *rewrite-table-entry* >

Usage

```
<rewrite-table>
  <rewrite-table-entry>
    <fc-queue-number>fc-queue-number</fc-queue-number>
    <rewrite-low-codepoint>rewrite-low-codepoint</rewrite-low-codepoint>
    <rewrite-low-enable-state>rewrite-low-enable-state</rewrite-low-enable-state>
    <rewrite-high-codepoint>rewrite-high-codepoint</rewrite-high-codepoint>
    <rewrite-high-enable-state>rewrite-high-enable-state</rewrite-high-enable-state>
  </rewrite-table-entry>
</rewrite-table>
```

Description No documentation is available yet.

Contents <fc-queue-number>—Class-of-service forwarding class queue number.

<rewrite-high-codepoint>—Binary version of code point.

<rewrite-high-enable-state>—Enable state.

<rewrite-low-codepoint>—Binary version of code point.

<rewrite-low-enable-state>—Enable state.

< *rewrite-table-map* >

Usage

```
<cos-rewrite-table-map-information>
  <rewrite-table-map>
    <table-index>table-index</table-index>
    <table-type>table-type</table-type>
    <logical-interface>logical-interface</logical-interface>
    <logical-interface-index>logical-interface-index</logical-interface-index>
  </rewrite-table-map>
</cos-rewrite-table-map-information>
```

Description No documentation is available yet.

Contents <logical-interface>—Logical interface name.

<logical-interface-index>—Logical interface index.

<table-index>—Table index.

<table-type>—Table type.

< *scheduler* >

Usage

```
<scheduler-map>
  <scheduler>
    <fc-name>fc-name</fc-name>
    <scheduler-name>scheduler-name</scheduler-name>
    <scheduler-index>scheduler-index</scheduler-index>
    <scheduler-tx-rate>scheduler-tx-rate</scheduler-tx-rate>
    <scheduler-tx-limit>scheduler-tx-limit</scheduler-tx-limit>
    <scheduler-buffer-size>scheduler-buffer-size</scheduler-buffer-size>
    <scheduler-priority>scheduler-priority</scheduler-priority>
    <scheduler-drop-profile-ln-index>ln-index</scheduler-drop-profile-ln-index>
    <scheduler-drop-profile-ln>scheduler-drop-profile-ln</scheduler-drop-profile-ln>
    <scheduler-drop-profile-lt-index>lt-index</scheduler-drop-profile-lt-index>
    <scheduler-drop-profile-lt>scheduler-drop-profile-lt</scheduler-drop-profile-lt>
    <scheduler-drop-profile-hn-index>hn-index</scheduler-drop-profile-hn-index>
    <scheduler-drop-profile-hn>scheduler-drop-profile-hn</scheduler-drop-profile-hn>
    <scheduler-drop-profile-ht-index>ht-index</scheduler-drop-profile-ht-index>
    <scheduler-drop-profile-ht>scheduler-drop-profile-ht</scheduler-drop-profile-ht>
  </scheduler>
</scheduler-map>
```

Description No documentation is available yet.

Contents <fc-name>—Class-of-service forwarding class name.

<scheduler-buffer-size>—Class-of-service scheduler buffer size.

<scheduler-drop-profile-hn>—Class-of-service scheduler drop profile high, non-TCP.

<scheduler-drop-profile-hn-index>—Class-of-service scheduler drop profile index high, non-TCP.

<scheduler-drop-profile-ht>—Class-of-service scheduler drop profile high, TCP.

<scheduler-drop-profile-ht-index>—Class-of-service scheduler drop profile index high, TCP.

<scheduler-drop-profile-ln>—Class-of-service scheduler drop profile low, non-TCP.

<scheduler-drop-profile-ln-index>—Class-of-service scheduler drop profile index low, non-TCP.

<scheduler-drop-profile-lt>—Class-of-service scheduler drop profile low, TCP.

<scheduler-drop-profile-lt-index>—Class-of-service scheduler drop profile index low, TCP.

<scheduler-index>—Class of service scheduler index.

<scheduler-name>—Class-of-service scheduler name.

<scheduler-priority>—Class-of-service scheduler priority.

<scheduler-tx-limit>—Class-of-service scheduler transmit limit.

<scheduler-tx-rate>—Class-of-service scheduler transmit rate.

< *scheduler-map* >

Usage

```
<cos-scheduler-map-information>
  <scheduler-map>
    <scheduler-map-name>scheduler-map-name</scheduler-map-name>
    <scheduler-map-index>scheduler-map-index</scheduler-map-index>
    <scheduler>...</scheduler>
  </scheduler-map>
</cos-scheduler-map-information>
```

Description Class-of-service scheduler map.

Contents <scheduler>—No documentation is available yet.

<scheduler-map-index>—Class-of-service scheduler map index.

<scheduler-map-name>—Class-of-service scheduler map name.

< *shaper-table-map* >

Usage

```
<cos-shaper-table-map-information>
  <shaper-table-map>
    <s-interface>s-interface</s-interface>
    <s-interface-index>s-interface-index</s-interface-index>
    <shaper-bandwidth>shaper-bandwidth</shaper-bandwidth>
    <shaper-burst>shaper-burst</shaper-burst>
  </shaper-table-map>
</cos-shaper-table-map-information>
```

Description No documentation is available yet.

Contents <s-interface>—No documentation is available yet.

<s-interface-index>—No documentation is available yet.

<shaper-bandwidth>—Class-of-service logical interface shaper bandwidth.

<shaper-burst>—Class-of-service logical interface shaper burst.

Summary of Firewall Filter Response Tags

This section lists the tags returned by the JUNOScript server to describe firewall filter information. The associated XML namespace is http://xml.juniper.net/junos/5.5R1/junos-filter. To review the DTD for the tags, see “DTD for Firewall Filter Response Tags” on page 1723.

< *counter* >

Usage

```
<filter-information>
  <counter>
    <counter-name>counter-name</counter-name>
    <byte-count>byte-count</byte-count>
    <packet-count>packet-count</packet-count>
  </counter>
</filter-information>
```

Description Counter information.

Contents <byte-count>—Bytes counted.

<counter-name>—Counter name.

<packet-count>—Packets counted.

< *filter-information* >

Usage

```
<firewall-information>
  <filter-information>
    <filter-name>filter-name</filter-name>
    <counter>...</counter>
    <policer>...</policer>
  </filter-information>
</firewall-information>
```

Description Details of a firewall filter.

Contents <counter>—Counter information.

<filter-name>—Name of filter.

<policer>—Policer information.

< *firewall-information* >

Usage

```
<rpc-reply>
  <firewall-information>
    <filter-information>...</filter-information>
  </firewall-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <filter-information>—Details of a firewall filter.

< *firewall-log-information* >

Usage

```
<rpc-reply>
  <firewall-log-information>
    <log-information>...</log-information>
  </firewall-log-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <log-information>—Details of a single firewall log entry.

< *log-information* >

Usage

```
<firewall-log-information>
  <log-information>
    <time>time</time>
    <filter-name>filter-name</filter-name>
    <action-name>action-name</action-name>
    <interface-name>interface-name</interface-name>
    <protocol-name>protocol-name</protocol-name>
    <source-address>source-address</source-address>
    <destination-address>destination-address</destination-address>
    <packet-length>packet-length</packet-length>
    <icmp-type>icmp-type</icmp-type>
    <icmp-code>icmp-code</icmp-code>
  </log-information>
</firewall-log-information>
```

Description Details of a single firewall log entry.

Contents <action-name>—Filter action.

<destination-address>—Destination address.

<filter-name>—Name of filter.

<icmp-code>—ICMP code.

<icmp-type>—ICMP type.

<interface-name>—Name of interface.

<packet-length>—Packet length.

<protocol-name>—Name of protocol.

<source-address>—Source address.

<time>—Time of log.

< *policer* >

Usage

```
<filter-information>
  <policer>
    <policer-name>policer-name</policer-name>
    <packet-count>packet-count</packet-count>
  </policer>
</filter-information>
```

Description Policer information.

Contents <packet-count>—Packets counted.

<policer-name>—Name of this policer.

Summary of Forwarding and Routing Table Response Tags

This section lists the tags returned by the JUNOScript server to describe forwarding and routing table information. The associated XML namespace is http://xml.juniper.net/junos/5.5R1/junos-rtinfo. To review the DTD for the tags, see "DTD for Forwarding and Routing Table Response Tags" on page 1725.

< forwarding-table-information >

Usage

```
<rpc-reply>
  <forwarding-table-information>
    <route-table>...</route-table>
  </forwarding-table-information>
</rpc-reply>
```

Description Information about forwarding-table routing entries.

Contents <route-table>—Denotes a routing table.

< nh >

Usage

```
<rt-entry>
  <nh>
    <to>to</to>
    <nh-type>nh-type</nh-type>
    <nh-index>nh-index</nh-index>
    <nh-reference-count>nh-reference-count</nh-reference-count>
    <via>via</via>
    <nh-weight>nh-weight</nh-weight>
  </nh>
</rt-entry>
```

Description Next hop for this routing table entry.

Contents <nh-index>—Index in next-hop table.

<nh-reference-count>—Next-hop reference count.

<nh-type>—Next-hop type.

<nh-weight>—Next-hop weight.

<to>—Next-hop address for this entry.

<via>—Network interface name.

< *route-table* >

Usage

```
<forwarding-table-information>
  <route-table>
    <table-name>table-name</table-name>
    <route-table-deleted/>
    <address-family>address-family</address-family>
    <address-family-number>address-family-number</address-family-number>
    <rt-entry>...</rt-entry>
    <route-table-summary>...</route-table-summary>
  </route-table>
</forwarding-table-information>
```

Description Denotes a routing table.

Contents <address-family>—Address family for this routing table.

<address-family-number>—If the address family name is unknown, print the number.

<route-table-deleted>—Whether this routing table has been deleted.

<route-table-summary>—Routing table summary.

<rt-entry>—Routing table entry for a destination.

<table-name>—Name of this routing table.

< *route-table-summary* >

Usage

```
<route-table>
  <route-table-summary>
    <route-table-type>route-table-type</route-table-type>
    <route-count>route-count</route-count>
  </route-table-summary>
</route-table>
```

Description Routing table summary.

Contents <route-count>—Number of routes in this routing table.

<route-table-type>—Type for this routing table.

< *rpf-information* >

Usage

```
<rt-entry>
  <rpf-information>
    <via>via</via>
  </rpf-information>
</rt-entry>
```

Description Reverse-path-forwarding check for this route.

Contents <via>—Network interface name.

< *rt-entry* >

Usage

```
<route-table>
  <rt-entry>
    <rt-destination>rt-destination</rt-destination>
    <destination-type>destination-type</destination-type>
    <route-reference-count>route-reference-count</route-reference-count>
    <route-flags>route-flags</route-flags>
    <nh>...</nh>
    <rpf-information>...</rpf-information>
  </rt-entry>
</route-table>
```

Description Routing table entry for a destination.

Contents <destination-type>—Destination type for this entry.

<nh>—Next hop for this routing table entry.

<route-flags>—Flags associated with this route entry.

<route-reference-count>—Reference count for this destination entry.

<rpf-information>—Reverse-path forwarding check for this route.

<rt-destination>—Destination address.

Summary of Interface Response Tags

This section lists the tags returned by the JUNOScript server to describe router interfaces. The associated XML namespace is http://xml.juniper.net/junos/5.5R1/junos-interface. To review the DTD for the tags, see "DTD for Interface Response Tags" on page 1727.

< *active-alarms* >

Usage

```
<physical-interface>
  <active-alarms>
    <type>type</type>
    <interface-alarms>...</interface-alarms>
  </active-alarms>
</physical-interface>
```

Description Media-specific defects that can render the interface unable to pass packets. When a defect persists for a certain amount of time, it is promoted to an alarm. Based on the router configuration, an alarm can ring the red or yellow alarm bell on the router, or the red or yellow alarm LED on the craft interface.

Contents <interface-alarms>—Container tag for interface alarms.

<type>—Media type for associated interface alarms.

< *active-defects* >

Usage

```
<physical-interface>
  <active-defects>
    <type>type</type>
    <interface-alarms>...</interface-alarms>
  </active-defects>
</physical-interface>
```

Description Media-specific defects that can render the interface unable to pass packets. When a defect persists for a certain amount of time, it is promoted to an alarm. Based on the router configuration, an alarm can ring the red or yellow alarm bell on the router, or the red or yellow alarm LED on the craft interface.

Contents <interface-alarms>—Container tag for interface alarms.

<type>—Media type for associated interface alarms.

< *address-family* >

Usage

```
<logical-interface>
  <address-family>
    <address-family-name>address-family-name</address-family-name>
    <multilink-bundle-name>multilink-bundle-name</multilink-bundle-name>
    <as-bundle-name>as-bundle-name</as-bundle-name>
    <ae-bundle-name>ae-bundle-name</ae-bundle-name>
    <es-sa-name>es-sa-name</es-sa-name>
    <es-sa-fail-count>es-sa-fail-count</es-sa-fail-count>
    <es-sa-xmt-seq-num>es-sa-xmt-seq-num</es-sa-xmt-seq-num>
    <es-sa-recv-seq-num>es-sa-recv-seq-num</es-sa-recv-seq-num>
    <mtu>mtu</mtu>
    <address-family-flags>...</address-family-flags>
    <generation>generation</generation>
    <route-table>route-table</route-table>
    <filter-information>...</filter-information>
    <policer-information>...</policer-information>
    <interface-address>...</interface-address>
    <route-rpf-statistics>...</route-rpf-statistics>
    <destination-class-statistics>...</destination-class-statistics>
    <source-class-statistics>...</source-class-statistics>
  </address-family>
</logical-interface>
```

Description No documentation is available yet.

Contents <address-family-flags>—No documentation is available yet.

<address-family-name>—No documentation is available yet.

<ae-bundle-name>—Name of the aggregated Ethernet bundle.

<as-bundle-name>—Name of the aggregated SONET bundle for this address family.

<destination-class-statistics>—Destination class usage (DCU) statistics.

<es-sa-fail-count>—Number of failures for IPSec security association for this family.

<es-sa-name>—Name of the IPSec security association for this address family.

<es-sa-recv-seq-num>—Receive sequence number of IPSec security association family.

<es-sa-xmt-seq-num>—Transmit sequence number of IPSec security association family.

<filter-information>—No documentation is available yet.

<generation>—Generation number used to distinguish between successive instances of this interface.

<interface-address>—No documentation is available yet.

<mtu>—MTU size on this interface.

<multilink-bundle-name>—Name of the multilink bundle for this address family.

<policer-information>—Interface policer information.

<route-rpf-statistics>—Unicast reverse-path forwarding (RPF) statistics.

<route-table>—No documentation is available yet.

<source-class-statistics>—Source class usage (SCU) statistics.

< *address-family-flags* >

Usage

```
<address-family>
  <address-family-flags>
    <ifff-none/>
    <ifff-primary/>
    <ifff-redirects/>
    <ifff-no-redirects/>
    <ifff-hard-down/>
    <ifff-down/>
    <ifff-up/>
    <ifff-func1/>
    <ifff-func2/>
    <ifff-is-primary/>
    <ifff-transit-options-ttl-exceeded/>
    <ifff-dst-class-usage/>
    <ifff-src-class-input/>
    <ifff-src-class-output/>
    <ifff-rpf-check/>
    <ifff-rpf-loose-mode/>
    <generic-value>generic-value</generic-value>
  </address-family-flags>
</address-family>
```

Description No documentation is available yet.

Contents <generic-value>—Hexadecimal value of unknown flag bits.

<ifff-down>—Protocol is inactive.

<ifff-dst-class-usage>—The interface family is configured for DCU.

<ifff-func1>—No documentation is available yet.

<ifff-func2>—No documentation is available yet.

<ifff-hard-down>—Protocol failed to negotiate correctly.

<ifff-is-primary>—The interface is the primary one for the protocol.

<ifff-no-redirects>—Protocol redirects are disabled.

<ifff-none>—No documentation is available yet.

<ifff-primary>—Interface can be considered for selection as the primary family address.

<ifff-redirects>—No documentation is available yet.

<ifff-rpf-check>—The interface family is configured for unicast RPF.

<ifff-rpf-loose-mode>—The interface family is configured for uRPF loose mode.

<ifff-src-class-input>—The interface family is configured for SCU input.

<ifff-src-class-output>—The interface family is configured for SCU output.

<ifff-transit-options-ttl-exceeded>—Transit nonlocal TTL-exceeded and options packets.

<ifff-up>—Protocol is configured and operational.

< *atm-defects* >

Usage

```
<atm-information>
  <atm-defects>
    <media-alarm>...</media-alarm>
  </atm-defects>
</atm-information>
```

Description No documentation is available yet.

Contents <media-alarm>—No documentation is available yet.

< *atm-information* >

Usage

```
<physical-interface>
  <atm-information>
    <plcp-defects>...</plcp-defects>
    <atm-defects>...</atm-defects>
    <plcp-statistics>...</plcp-statistics>
    <atm-hcs-state>atm-hcs-state</atm-hcs-state>
    <atm-loss-of-cell>atm-loss-of-cell</atm-loss-of-cell>
    <atm-statistics>...</atm-statistics>
  </atm-information>
</physical-interface>
```

Description Operational information and statistics for ATM interfaces.

Contents <atm-defects>—No documentation is available yet.

<atm-hcs-state>—No documentation is available yet.

<atm-loss-of-cell>—No documentation is available yet.

<atm-statistics>—No documentation is available yet.

<plcp-defects>—No documentation is available yet.

<plcp-statistics>—No documentation is available yet.

< *atm-statistics* >

Usage

```
<atm-information | virtual-circuit-information>
  <atm-statistics>
    <uncorrectable-hcs-errors>uncorrectable-hcs-errors</uncorrectable-hcs-errors>
    <correctable-hcs-errors>correctable-hcs-errors</correctable-hcs-errors>
    <tx-cell-fifo-overruns>tx-cell-fifo-overruns</tx-cell-fifo-overruns>
    <rx-cell-fifo-overruns>rx-cell-fifo-overruns</rx-cell-fifo-overruns>
    <rx-cell-fifo-underruns>rx-cell-fifo-underruns</rx-cell-fifo-underruns>
    <rx-cell-count>rx-cell-count</rx-cell-count>
    <tx-cell-count>tx-cell-count</tx-cell-count>
    <tx-idle-cell-count>tx-idle-cell-count</tx-idle-cell-count>
    <vc-queue-drops>vc-queue-drops</vc-queue-drops>
    <no-buffers>no-buffers</no-buffers>
    <length-errors>length-errors</length-errors>
    <timeouts>timeouts</timeouts>
    <rx-invalid-vcs>rx-invalid-vcs</rx-invalid-vcs>
    <bad-crcs>bad-crcs</bad-crcs>
    <oam-cell-no-buffers>oam-cell-no-buffers</oam-cell-no-buffers>
  </atm-statistics>
</atm-information | virtual-circuit-information>
```

Description No documentation is available yet.

Contents <bad-crcs>—No documentation is available yet.

<correctable-hcs-errors>—No documentation is available yet.

<length-errors>—No documentation is available yet.

<no-buffers>—No documentation is available yet.

<oam-cell-no-buffers>—No documentation is available yet.

<rx-cell-count>—No documentation is available yet.

<rx-cell-fifo-overruns>—No documentation is available yet.

<rx-cell-fifo-underruns>—No documentation is available yet.

<rx-invalid-vcs>—No documentation is available yet.

<timeouts>—No documentation is available yet.

<tx-cell-count>—No documentation is available yet.

<tx-cell-fifo-overruns>—No documentation is available yet.

<tx-idle-cell-count>—No documentation is available yet.

<uncorrectable-hcs-errors>—No documentation is available yet.

<vc-queue-drops>—No documentation is available yet.

< *bundle* >

Usage

```
<multilink-traffic-statistics | ls-mfr-traffic-statistics>
  <bundle>
    <fragments>...</fragments>
    <packets>...</packets>
  </bundle>
</multilink-traffic-statistics | ls-mfr-traffic-statistics>
```

Description No documentation is available yet.

Contents <fragments>—No documentation is available yet.

<packets>—No documentation is available yet.

< *cds1-information* >

Usage

```
<physical-interface>
  <cds1-information>
    <interface-tx-queue>...</interface-tx-queue>
  </cds1-information>
</physical-interface>
```

Description No documentation is available yet.

Contents <interface-tx-queue>—No documentation is available yet.

< *coc12-information* >

Usage

```
<physical-interface>
  <coc12-information>
    <interface-tx-queue>...</interface-tx-queue>
  </coc12-information>
</physical-interface>
```

Description No documentation is available yet.

Contents <interface-tx-queue>—No documentation is available yet.

< *controller* >

Usage

```
<interface-information>
  <controller>
    <name>name</name>
  </controller>
</interface-information>
```

Description No documentation is available yet.

Contents <name>—Name of this item.

< *cos-information* >

Usage

```
<physical-interface>
  <cos-information>
    <cos-queue-config>...</cos-queue-config>
  </cos-information>
</physical-interface>
```

Description Information about class-of-service configuration.

Contents <cos-queue-config>—No documentation is available yet.

< *cos-queue-config* >

Usage

```
<cos-information>
  <cos-queue-config>
    <cos-queue-number>cos-queue-number</cos-queue-number>
    <cos-queue-forwarding-class>cos-queue-forwarding-class</cos-queue-forwarding-class>
    <cos-queue-bandwidth>cos-queue-bandwidth</cos-queue-bandwidth>
    <cos-queue-bandwidth-bps>cos-queue-bandwidth-bps</cos-queue-bandwidth-bps>
    <cos-queue-buffer>cos-queue-buffer</cos-queue-buffer>
    <cos-queue-buffer-bytes>cos-queue-buffer-bytes</cos-queue-buffer-bytes>
    <cos-queue-priority>cos-queue-priority</cos-queue-priority>
    <cos-queue-limit>cos-queue-limit</cos-queue-limit>
  </cos-queue-config>
</cos-information>
```

Description No documentation is available yet.

Contents <cos-queue-bandwidth>—No documentation is available yet.

<cos-queue-bandwidth-bps>—No documentation is available yet.

<cos-queue-buffer>—No documentation is available yet.

<cos-queue-buffer-bytes>—No documentation is available yet.

<cos-queue-forwarding-class>—No documentation is available yet.

<cos-queue-limit>—No documentation is available yet.

<cos-queue-number>—No documentation is available yet.

<cos-queue-priority>—No documentation is available yet.

< *ct3-information* >

Usage

```
<physical-interface>
  <ct3-information>
    <interface-tx-queue>...</interface-tx-queue>
  </ct3-information>
</physical-interface>
```

Description No documentation is available yet.

Contents <interface-tx-queue>—No documentation is available yet.

< *destination-class-statistics* >

Usage

```
<address-family>
  <destination-class-statistics>
    <dcu-class-name>dcu-class-name</dcu-class-name>
    <dcu-class-packets>dcu-class-packets</dcu-class-packets>
    <dcu-class-bytes>dcu-class-bytes</dcu-class-bytes>
  </destination-class-statistics>
</address-family>
```

Description Destination class usage (DCU) statistics.

Contents <dcu-class-bytes>—Number of bytes counted by DCU for this class.

<dcu-class-name>—Name of DCU class.

<dcu-class-packets>—Number of packets counted by DCU for this class.

< *ds1-bert-information* >

Usage

```
<physical-interface>
  <ds1-bert-information>
    <ds1-bert-period>ds1-bert-period</ds1-bert-period>
    <ds1-bert-elapsed>ds1-bert-elapsed</ds1-bert-elapsed>
    <ds1-bert-status>ds1-bert-status</ds1-bert-status>
    <ds1-bert-algorithm>ds1-bert-algorithm</ds1-bert-algorithm>
    <ds1-bert-error-rate>ds1-bert-error-rate</ds1-bert-error-rate>
    <ds1-bert-induced-error-rate>ds1-bert-induced-error-rate</ds1-bert-induced-error-rate>
    <ds1-bert-bit-count>ds1-bert-bit-count</ds1-bert-bit-count>
    <ds1-bert-error-bit-count>ds1-bert-error-bit-count</ds1-bert-error-bit-count>
    <ds1-bert-los-status>ds1-bert-los-status</ds1-bert-los-status>
    <ds1-bert-los-seconds>ds1-bert-los-seconds</ds1-bert-los-seconds>
  </ds1-bert-information>
</physical-interface>
```

Description DS-1 BERT configuration and statistics.

Contents <ds1-bert-algorithm>—No documentation is available yet.

<ds1-bert-bit-count>—No documentation is available yet.

<ds1-bert-elapsed>—No documentation is available yet.

<ds1-bert-error-bit-count>—No documentation is available yet.

<ds1-bert-error-rate>—No documentation is available yet.

<ds1-bert-induced-error-rate>—No documentation is available yet.

<ds1-bert-los-seconds>—No documentation is available yet.

<ds1-bert-los-status>—No documentation is available yet.

<ds1-bert-period>—No documentation is available yet.

<ds1-bert-status>—No documentation is available yet.

< *ds3-bert-information* >

Usage

```
<physical-interface>
  <ds3-bert-information>
    <ds3-bert-period>ds3-bert-period</ds3-bert-period>
    <ds3-bert-elapsed>ds3-bert-elapsed</ds3-bert-elapsed>
    <ds3-bert-status>ds3-bert-status</ds3-bert-status>
    <ds3-bert-algorithm>ds3-bert-algorithm</ds3-bert-algorithm>
    <ds3-bert-error-rate>ds3-bert-error-rate</ds3-bert-error-rate>
    <ds3-bert-induced-error-rate>ds3-bert-induced-error-rate</ds3-bert-induced-error-rate>
    <ds3-bert-bit-count>ds3-bert-bit-count</ds3-bert-bit-count>
    <ds3-bert-bit-count-overflow>ds3-bert-bit-count-overflow</ds3-bert-bit-count-overflow>
    <ds3-bert-error-bit-count>ds3-bert-error-bit-count</ds3-bert-error-bit-count>
    <ds3-bert-error-bit-count-overflow>bit-count-overflow</ds3-bert-error-bit-count-overflow>
    <ds3-bert-los-status>ds3-bert-los-status</ds3-bert-los-status>
    <ds3-bert-los-count>ds3-bert-los-count</ds3-bert-los-count>
    <ds3-bert-los-seconds>ds3-bert-los-seconds</ds3-bert-los-seconds>
  </ds3-bert-information>
</physical-interface>
```

Description DS-3 BERT configuration and statistics.

Contents <ds3-bert-algorithm>—No documentation is available yet.

<ds3-bert-bit-count>—No documentation is available yet.

<ds3-bert-bit-count-overflow>—No documentation is available yet.

<ds3-bert-elapsed>—No documentation is available yet.

<ds3-bert-error-bit-count>—No documentation is available yet.

<ds3-bert-error-bit-count-overflow>—No documentation is available yet.

<ds3-bert-error-rate>—No documentation is available yet.

<ds3-bert-induced-error-rate>—No documentation is available yet.

<ds3-bert-los-count>—No documentation is available yet.

<ds3-bert-los-seconds>—No documentation is available yet.

<ds3-bert-los-status>—No documentation is available yet.

<ds3-bert-period>—No documentation is available yet.

<ds3-bert-status>—No documentation is available yet.

< *dsu-information* >

Usage

```
<physical-interface>
  <dsu-information>
    <dsu-compatibility-mode>dsu-compatibility-mode</dsu-compatibility-mode>
    <dsu-scrambler>dsu-scrambler</dsu-scrambler>
    <dsu-subrate>dsu-subrate</dsu-subrate>
    <feac-loopback>feac-loopback</feac-loopback>
    <feac-response>feac-response</feac-response>
    <feac-count>feac-count</feac-count>
  </dsu-information>
</physical-interface>
```

Description DSU configuration and statistics.

Contents <dsu-compatibility-mode>—No documentation is available yet.

<dsu-scrambler>—No documentation is available yet.

<dsu-subrate>—No documentation is available yet.

<feac-count>—No documentation is available yet.

<feac-loopback>—No documentation is available yet.

<feac-response>—No documentation is available yet.

< *e3-bert-information* >

Usage

```
<physical-interface>
  <e3-bert-information>
    <e3-bert-period>e3-bert-period</e3-bert-period>
    <e3-bert-elapsed>e3-bert-elapsed</e3-bert-elapsed>
    <e3-bert-status>e3-bert-status</e3-bert-status>
    <e3-bert-algorithm>e3-bert-algorithm</e3-bert-algorithm>
    <e3-bert-error-rate>e3-bert-error-rate</e3-bert-error-rate>
    <e3-bert-induced-error-rate>e3-bert-induced-error-rate</e3-bert-induced-error-rate>
    <e3-bert-bit-count>e3-bert-bit-count</e3-bert-bit-count>
    <e3-bert-bit-count-overflow>e3-bert-bit-count-overflow</e3-bert-bit-count-overflow>
    <e3-bert-error-bit-count>e3-bert-error-bit-count</e3-bert-error-bit-count>
    <e3-bert-error-bit-count-overflow>bit-count-overflow</e3-bert-error-bit-count-overflow>
    <e3-bert-los-status>e3-bert-los-status</e3-bert-los-status>
    <e3-bert-los-count>e3-bert-los-count</e3-bert-los-count>
    <e3-bert-los-seconds>e3-bert-los-seconds</e3-bert-los-seconds>
  </e3-bert-information>
</physical-interface>
```

Description E3 BERT configuration and statistics.

Contents <e3-bert-algorithm>—No documentation is available yet.

<e3-bert-bit-count>—No documentation is available yet.

<e3-bert-bit-count-overflow>—No documentation is available yet.

<e3-bert-elapsed>—No documentation is available yet.

<e3-bert-error-bit-count>—No documentation is available yet.

<e3-bert-error-bit-count-overflow>—No documentation is available yet.

<e3-bert-error-rate>—No documentation is available yet.

<e3-bert-induced-error-rate>—No documentation is available yet.

<e3-bert-los-count>—No documentation is available yet.

<e3-bert-los-seconds>—No documentation is available yet.

<e3-bert-los-status>—No documentation is available yet.

<e3-bert-period>—No documentation is available yet.

<e3-bert-status>—No documentation is available yet.

< *es-ifd-stats* >

Usage

```
<physical-interface>
  <es-ifd-stats>
    <total-anti-replay-count>total-anti-replay-count</total-anti-replay-count>
    <total-authentication-failure-count>failure-count</total-authentication-failure-count>
  </es-ifd-stats>
</physical-interface>
```

Description Encryption Services PIC statistics.

Contents <total-anti-replay-count>—Number of anti-replay failures.

<total-authentication-failure-count>—Number of authentication failures.

< *ethernet-autonegotiation* >

Usage

```
<physical-interface>
  <ethernet-autonegotiation>
    <autonegotiation-status>autonegotiation-status</autonegotiation-status>
    <link-partner-status>link-partner-status</link-partner-status>
    <link-partner-reason>link-partner-reason</link-partner-reason>
    <link-partner-duplexity>link-partner-duplexity</link-partner-duplexity>
    <link-partner-speed>link-partner-speed</link-partner-speed>
    <flow-control>flow-control</flow-control>
  </ethernet-autonegotiation>
</physical-interface>
```

Description Ethernet autonegotiation information.

Contents <autonegotiation-status>—No documentation is available yet.

<flow-control>—No documentation is available yet.

<link-partner-duplexity>—No documentation is available yet.

<link-partner-reason>—Reason link partner is down.

<link-partner-speed>—Link partner speed.

<link-partner-status>—No documentation is available yet.

< *ethernet-filter-statistics* >

Usage

```
<physical-interface>
  <ethernet-filter-statistics>
    <input-packets>input-packets</input-packets>
    <input-reject-count>input-reject-count</input-reject-count>
    <input-reject-destination-address-count>count</input-reject-destination-address-count>
    <input-reject-source-address-count>address-count</input-reject-source-address-count>
    <output-packets>output-packets</output-packets>
    <output-packet-pad-count>output-packet-pad-count</output-packet-pad-count>
    <output-packet-error-count>output-packet-error-count</output-packet-error-count>
    <cam-destination-filter-count>filter-count</cam-destination-filter-count>
    <cam-source-filter-count>cam-source-filter-count</cam-source-filter-count>
  </ethernet-filter-statistics>
</physical-interface>
```

Description Ethernet filter statistics.

Contents

<cam-destination-filter-count>—No documentation is available yet.

<cam-source-filter-count>—No documentation is available yet.

<input-packets>—No documentation is available yet.

<input-reject-count>—No documentation is available yet.

<input-reject-destination-address-count>—No documentation is available yet.

<input-reject-source-address-count>—No documentation is available yet.

<output-packet-error-count>—No documentation is available yet.

<output-packet-pad-count>—No documentation is available yet.

<output-packets>—No documentation is available yet.

< *ethernet-mac-statistics* >

Usage

```
<physical-interface>
  <ethernet-mac-statistics>
    <input-bytes>input-bytes</input-bytes>
    <input-packets>input-packets</input-packets>
    <input-unicasts>input-unicasts</input-unicasts>
    <input-broadcasts>input-broadcasts</input-broadcasts>
    <input-multicasts>input-multicasts</input-multicasts>
    <input-crc-errors>input-crc-errors</input-crc-errors>
    <input-fifo-errors>input-fifo-errors</input-fifo-errors>
    <input-mac-control-frames>input-mac-control-frames</input-mac-control-frames>
    <input-mac-pause-frames>input-mac-pause-frames</input-mac-pause-frames>
    <input-oversized-frames>input-oversized-frames</input-oversized-frames>
    <input-jabber-frames>input-jabber-frames</input-jabber-frames>
    <input-fragment-frames>input-fragment-frames</input-fragment-frames>
    <input-vlan-tagged-frames>input-vlan-tagged-frames</input-vlan-tagged-frames>
    <input-code-violations>input-code-violations</input-code-violations>
    <input-policer-frame-drops>input-policer-frame-drops</input-policer-frame-drops>
    <input-policer-byte-drops>input-policer-byte-drops</input-policer-byte-drops>
    <output-bytes>output-bytes</output-bytes>
    <output-packets>output-packets</output-packets>
    <output-unicasts>output-unicasts</output-unicasts>
    <output-broadcasts>output-broadcasts</output-broadcasts>
    <output-multicasts>output-multicasts</output-multicasts>
    <output-crc-errors>output-crc-errors</output-crc-errors>
    <output-fifo-errors>output-fifo-errors</output-fifo-errors>
    <output-mac-control-frames>output-mac-control-frames</output-mac-control-frames>
    <output-mac-pause-frames>output-mac-pause-frames</output-mac-pause-frames>
  </ethernet-mac-statistics>
</physical-interface>
```

Description Ethernet MAC statistics.

Contents

<input-broadcasts>—No documentation is available yet.

<input-bytes>—No documentation is available yet.

<input-code-violations>—No documentation is available yet.

<input-crc-errors>—No documentation is available yet.

<input-fifo-errors>—Number of FIFO errors in the receive direction as reported by the ASIC on the PIC. If this value is nonzero, the PIC is probably broken.

<input-fragment-frames>—No documentation is available yet.

<input-jabber-frames>—No documentation is available yet.

<input-mac-control-frames>—No documentation is available yet.

<input-mac-pause-frames>—No documentation is available yet.

<input-multicasts>—No documentation is available yet.

<input-oversized-frames>—No documentation is available yet.

<input-packets>—No documentation is available yet.

<input-policer-byte-drops>—No documentation is available yet.

<input-policer-frame-drops>—No documentation is available yet.

<input-unicasts>—No documentation is available yet.

<input-vlan-tagged-frames>—No documentation is available yet.

<output-broadcasts>—No documentation is available yet.

<output-bytes>—No documentation is available yet.

<output-crc-errors>—No documentation is available yet.

<output-fifo-errors>—No documentation is available yet.

<output-mac-control-frames>—No documentation is available yet.

<output-mac-pause-frames>—No documentation is available yet.

<output-multicasts>—No documentation is available yet.

<output-packets>—No documentation is available yet.

<output-unicasts>—No documentation is available yet.

< *filter-information* >

Usage

```
<logical-interface | address-family>
  <filter-information>
    <filter-family>filter-family</filter-family>
    <filter-input>filter-input</filter-input>
    <filter-output>filter-output</filter-output>
  </filter-information>
</logical-interface | address-family>
```

Description No documentation is available yet.

Contents <filter-family>—Protocol family of the filter.

<filter-input>—Name of the input filter.

<filter-output>—Name of the output filter.

< *fragments* >

Usage

```
<bundle>
  <fragments>
    <input-frames>input-frames</input-frames>
    <input-fps>input-fps</input-fps>
    <input-bytes>input-bytes</input-bytes>
    <input-bps>input-bps</input-bps>
    <output-frames>output-frames</output-frames>
    <output-fps>output-fps</output-fps>
    <output-bytes>output-bytes</output-bytes>
    <output-bps>output-bps</output-bps>
  </fragments>
</bundle>
```

Description No documentation is available yet.

Contents <input-bps>—No documentation is available yet.

<input-bytes>—No documentation is available yet.

<input-fps>—No documentation is available yet.

<input-frames>—No documentation is available yet.

<output-bps>—No documentation is available yet.

<output-bytes>—No documentation is available yet.

<output-fps>—No documentation is available yet.

<output-frames>—No documentation is available yet.

< *hdlc-information* >

Usage

```
<physical-interface>
  <hdlc-information>
    <hdlc-rx-bucket-state>hdlc-rx-bucket-state</hdlc-rx-bucket-state>
    <hdlc-rx-bit-rate>hdlc-rx-bit-rate</hdlc-rx-bit-rate>
    <hdlc-rx-threshold>hdlc-rx-threshold</hdlc-rx-threshold>
    <hdlc-tx-bit-rate>hdlc-tx-bit-rate</hdlc-tx-bit-rate>
    <hdlc-tx-bucket-state>hdlc-tx-bucket-state</hdlc-tx-bucket-state>
    <hdlc-tx-threshold>hdlc-tx-threshold</hdlc-tx-threshold>
    <hdlc-giant-threshold>hdlc-giant-threshold</hdlc-giant-threshold>
    <hdlc-runt-threshold>hdlc-runt-threshold</hdlc-runt-threshold>
  </hdlc-information>
</physical-interface>
```

Description No documentation is available yet.

Contents <hdlc-giant-threshold>—No documentation is available yet.

<hdlc-runt-threshold>—No documentation is available yet.

<hdlc-rx-bit-rate>—No documentation is available yet.

<hdlc-rx-bucket-state>—No documentation is available yet.

<hdlc-rx-threshold>—No documentation is available yet.

<hdlc-tx-bit-rate>—No documentation is available yet.

<hdlc-tx-bucket-state>—No documentation is available yet.

<hdlc-tx-threshold>—No documentation is available yet.

< *if-config-flags* >

Usage

```
<physical-interface | logical-interface>
  <if-config-flags>
    <iff-none/>
    <iff-hardware-down/>
    <iff-down/>
    <iff-up/>
    <iff-admin-down/>
    <iff-admin-up/>
    <iff-link-down/>
    <iff-device-down/>
    <iff-point-to-point/>
    <iff-point-to-multipoint/>
    <iff-multiaccess/>
    <iff-change/>
    <iff-inverse-arp/>
    <iff-no-multicast/>
    <iff-multicast/>
    <iff-promiscuous/>
    <iff-all-multicast/>
    <iff-snmp-traps/>
    <iff-rx-passive/>
    <iff-tx-passive/>
    <iff-ccc-down/>
  </if-config-flags>
</physical-interface | logical-interface>
```

Description No documentation is available yet.

Contents <iff-admin-down>—Interface is in test mode, which means that some sanity checking, such as loop detection, is disabled.

<iff-admin-up>—No documentation is available yet.

<iff-all-multicast>—No multicast filtering (multicast promiscuous).

<iff-ccc-down>—CCC/TCC endpoint is down.

<iff-change>—No documentation is available yet.

<iff-device-down>—No documentation is available yet.

<iff-down>—No documentation is available yet.

<iff-hardware-down>—Interface is nonfunctional or incorrectly connected.

<iff-inverse-arp>—No documentation is available yet.

<iff-link-down>—Interface keepalives have indicated that the link is incomplete.

<iff-multiaccess>—No documentation is available yet.

<iff-multicast>—No documentation is available yet.

<iff-no-multicast>—Interface does not support multicast traffic.

<iff-none>—No documentation is available yet.

<iff-point-to-multipoint>—No documentation is available yet.

<iff-point-to-point>—Interface is point to point.

<iff-promiscuous>—Interface is in promiscuous mode and will see frames addressed to all physical addresses.

<iff-rx-passive>—Receive is disabled.

<iff-snmp-traps>—SNMP traps are enabled.

<iff-tx-passive>—Transmit is disabled.

<iff-up>—Interface is enabled and operational.

< if-device-flags >

Usage

```
<physical-interface>
  <if-device-flags>
    <ifdf-none/>
    <ifdf-present/>
    <ifdf-running/>
    <ifdf-duplex/>
    <ifdf-down/>
    <ifdf-no-carrier/>
    <ifdf-error1/>
    <ifdf-error2/>
    <ifdf-no-multicast/>
    <ifdf-loopback/>
    <ifdf-quench/>
    <ifdf-recv-all-multicasts/>
    <ifdf-promiscuous/>
    <ifdf-link-layer-down/>
    <ifdf-loop-detected/>
    <ifdf-pfe-gone/>
  </if-device-flags>
</physical-interface>
```

Description No documentation is available yet.

Contents <ifdf-down>—Device has been administratively disabled.

<ifdf-duplex>—Device will hear its own transmissions.

<ifdf-error1>—No documentation is available yet.

<ifdf-error2>—No documentation is available yet.

<ifdf-link-layer-down>—The link-layer protocol failed to connect successfully with the remote end point.

<ifdf-loop-detected>—The link layer has received frames that it sent and suspects a physical loopback.

<ifdf-loopback>—Device is in physical loopback.

<ifdf-no-carrier>—Where the media supports carrier recognition, this indicates that no carrier is currently seen.

<ifdf-no-multicast>—Device does not support multicast traffic.

<ifdf-none>—No documentation is available yet.

<ifdf-pfe-gone>—No documentation is available yet.

<ifdf-present>—Device is physically present and recognized.

<ifdf-promiscuous>—Device is in promiscuous mode and will see frames addressed to all physical addresses on the media.

<ifdf-quench>—Device is quenched because it overran its output buffer.

<ifdf-recv-all-multicasts>—No multicast filtering (multicast promiscuous).

<ifdf-running>—Device is active and enabled.

< if-media-flags >

Usage

```
<physical-interface>
  <if-media-flags>
    <ifmf-none/>
    <ifmf-autoselect/>
    <ifmf-keepalives/>
    <ifmf-no-keepalives/>
    <ifmf-give-up/>
    <ifmf-loose-lcp/>
    <ifmf-loose-ncp/>
    <ifmf-loose-lmi/>
    <ifmf-dce/>
    <ifmf-dte/>
  </if-media-flags>
</physical-interface>
```

Description No documentation is available yet.

Contents <ifmf-autoselect>—No documentation is available yet.

<ifmf-dce>—No documentation is available yet.

<ifmf-dte>—No documentation is available yet.

<ifmf-give-up>—Link protocol will not continue to retry to connect after repeated failures.

<ifmf-keepalives>—Link protocol keepalives are enabled.

<ifmf-loose-lcp>—PPP will not use LCP to indicate whether the link protocol is up.

<ifmf-loose-lmi>—Frame Relay will not use LMI to indicate whether the link protocol is up.

<ifmf-loose-ncp>—PPP will not use NCP to indicate whether the device is up.

<ifmf-no-keepalives>—Link protocol keepalives are disabled.

<ifmf-none>—No documentation is available yet.

< *ifa-flags* >

Usage

```
<interface-address>
  <ifa-flags>
    <ifaf-none/>
    <ifaf-primary/>
    <ifaf-preferred/>
    <ifaf-down/>
    <ifaf-current-default/>
    <ifaf-current-preferred/>
    <ifaf-current-primary/>
    <generic-value>generic-value</generic-value>
  </ifa-flags>
</interface-address>
```

Description No documentation is available yet.

Contents <generic-value>—Hexadecimal value of unknown flag bits.

<ifaf-current-default>—This address is the default address of the router. That is, it is the address sourced by SNMP, ping, traceroute, and other network utilities.

<ifaf-current-preferred>—This address is the default local address used for packets sourced by the local router to destinations on the subnet.

<ifaf-current-primary>—This address is used by default as the local address for broadcast and multicast packets sourced locally and sent out the interface.

<ifaf-down>—The software noticed that the link was down and changed the interface routes to be nonforwarding.

<ifaf-none>—No documentation is available yet.

<ifaf-preferred>—This address is a candidate to become the preferred address.

<ifaf-primary>—This address is a candidate to become the primary address.

< *ifvc-flags* >

Usage

```
<virtual-circuit-information>
  <ifvc-flags>
    <ifvc-down/>
    <ifvc-none/>
    <ifvc-active/>
    <ifvc-closed/>
    <ifvc-inverse-arp/>
    <ifvc-ilmi/>
    <ifvc-oam/>
    <ifvc-shaping/>
    <ifvc-passiveoam/>
    <ifvc-multicast/>
    <ifvc-ccc-down/>
  </ifvc-flags>
</virtual-circuit-information>
```

Description No documentation is available yet.

Contents <ifvc-active>—No documentation is available yet.

<ifvc-ccc-down>—No documentation is available yet.

<ifvc-closed>—No documentation is available yet.

<ifvc-down>—No documentation is available yet.

<ifvc-ilmi>—No documentation is available yet.

<ifvc-inverse-arp>—No documentation is available yet.

<ifvc-multicast>—No documentation is available yet.

<ifvc-none>—No documentation is available yet.

<ifvc-oam>—No documentation is available yet.

<ifvc-passiveoam>—No documentation is available yet.

<ifvc-shaping>—No documentation is available yet.

< *ifvc-multipoint-destination* >

Usage

```
<virtual-circuit-information>
  <ifvc-multipoint-destination>
    <multipoint-address>multipoint-address</multipoint-address>
  </ifvc-multipoint-destination>
</virtual-circuit-information>
```

Description No documentation is available yet.

Contents <multipoint-address>—Protocol address of the remote side of this connection.

< *ifvp-flags* >

Usage

```
<virtual-path-information>
  <ifvp-flags>
    <ifvp-down/>
    <ifvp-none/>
    <ifvp-active/>
    <ifvp-closed/>
    <ifvp-oam/>
    <ifvp-shaping/>
    <ifvp-passiveoam/>
    <ifvp-tunnel/>
  </ifvp-flags>
</virtual-path-information>
```

Description No documentation is available yet.

Contents <ifvp-active>—No documentation is available yet.

<ifvp-closed>—No documentation is available yet.

<ifvp-down>—No documentation is available yet.

<ifvp-none>—No documentation is available yet.

<ifvp-oam>—No documentation is available yet.

<ifvp-passiveoam>—No documentation is available yet.

<ifvp-shaping>—No documentation is available yet.

<ifvp-tunnel>—No documentation is available yet.

< *in-arp-statistics* >

Usage

```
<virtual-circuit-information | logical-interface>
  <in-arp-statistics>
    <received-count>received-count</received-count>
    <transmitted-count>transmitted-count</transmitted-count>
    <denied-count>denied-count</denied-count>
    <operation-not-supported-count>not-supported-count</operation-not-supported-count>
    <bad-packet-length-count>bad-packet-length-count</bad-packet-length-count>
    <bad-protocol-count>bad-protocol-count</bad-protocol-count>
    <bad-protocol-length-count>bad-protocol-length-count</bad-protocol-length-count>
    <bad-hardware-length-count>bad-hardware-length-count</bad-hardware-length-count>
    <dropped-count>dropped-count</dropped-count>
    <last-received>last-received</last-received>
    <last-transmitted>last-transmitted</last-transmitted>
  </in-arp-statistics>
</virtual-circuit-information | logical-interface>
```

Description Container tag for ARP statistics.

Contents <bad-hardware-length-count>—Number of ARPs with bad hardware length.

<bad-packet-length-count>—Number of ARPs with bad packet length.

<bad-protocol-count>—Number of ARPs with bad protocol.

<bad-protocol-length-count>—Number of ARPs with bad protocol length.

<denied-count>—Number of ARPs denied.

<dropped-count>—Number of ARPs dropped.

<last-received>—Time an ARP was last received.

<last-transmitted>—Time an ARP was last sent.

<operation-not-supported-count>—Number of ARPs with operation not supported.

<received-count>—Number of ARPs received.

<transmitted-count>—Number of ARPs sent.

< *input-error-list* >

Usage

```
<physical-interface>
  <input-error-list>
    <input-errors>input-errors</input-errors>
    <input-drops>input-drops</input-drops>
    <invalid-vcs>invalid-vcs</invalid-vcs>
    <framing-errors>framing-errors</framing-errors>
    <input-runts>input-runts</input-runts>
    <input-giants>input-giants</input-giants>
    <input-bucket-drops>input-bucket-drops</input-bucket-drops>
    <input-discards>input-discards</input-discards>
    <input-l3-incompletes>input-l3-incompletes</input-l3-incompletes>
    <input-l2-channel-errors>input-l2-channel-errors</input-l2-channel-errors>
    <input-l2-mismatch-timeouts>mismatch-timeouts</input-l2-mismatch-timeouts>
    <input-fifo-errors>input-fifo-errors</input-fifo-errors>
    <hs-link-crc-errors>hs-link-crc-errors</hs-link-crc-errors>
    <hs-link-fifo-overflows>hs-link-fifo-overflows</hs-link-fifo-overflows>
    <sram-errors>sram-errors</sram-errors>
  </input-error-list>
</physical-interface>
```

Description Input errors on this interface.

Contents <framing-errors>—No documentation is available yet.

<hs-link-crc-errors>—Count of errors on the high-speed links between the ASICs responsible for handling the router interfaces.

<hs-link-fifo-overflows>—Count of errors on the high-speed links between the ASICs responsible for handling the router interfaces.

<input-bucket-drops>—No documentation is available yet.

<input-discards>—Frames that the incoming packet match code discarded because they were not recognized or of interest. Usually, this field reports protocols that the JUNOS software does not handle, such as CDP.

<input-drops>—No documentation is available yet.

<input-errors>—Sum of the incoming frame aborts and FCS errors.

<input-fifo-errors>—Number of FIFO errors in the receive direction as reported by the ASIC on the PIC. If this value is nonzero, the PIC is probably broken.

<input-giants>—No documentation is available yet.

<input-l2-channel-errors>—This counter increments when the software cannot find a valid logical interface (for example, s0-6/0/3.0) for an incoming frame.

<input-l2-mismatch-timeouts>—Count of malformed or short packets that cause the incoming packet handler to discard the frame as unreadable.

<input-l3-incompletes>—This counter is incremented when the incoming packet fails Layer 3 (usually IPv4) sanity checks of the header. For example, a frame with less than 20 bytes of available IP header would be discarded and this counter would be incremented.

<input-runts>—No documentation is available yet.

<invalid-vcs>—No documentation is available yet.

<sram-errors>—No documentation is available yet.

< interface-address >

Usage

```
<address-family>
  <interface-address>
    <ifa-flags>...</ifa-flags>
    <generation>generation</generation>
    <ifa-destination>ifa-destination</ifa-destination>
    <ifa-local>ifa-local</ifa-local>
    <ifa-broadcast>ifa-broadcast</ifa-broadcast>
  </interface-address>
</address-family>
```

Description No documentation is available yet.

Contents <generation>—Generation number used to distinguish between successive instances of this interface.

<ifa-broadcast>—Network broadcast address.

<ifa-destination>—Protocol address of the remote side of this connection.

<ifa-flags>—No documentation is available yet.

<ifa-local>—Protocol address on this interface.

< *interface-alarms* >

Usage

```
<active-alarms | active-defects>
  <interface-alarms>
    <alarm-not-present/>
    <sonet-alarm-lol/>
    <sonet-alarm-pll/>
    <sonet-alarm-lof/>
    <sonet-alarm-los/>
    <sonet-alarm-sef/>
    <sonet-alarm-lais/>
    <sonet-alarm-pais/>
    <sonet-alarm-lop/>
    <sonet-alarm-berr-sd/>
    <sonet-alarm-berr-sf/>
    <sonet-alarm-lrdi/>
    <sonet-alarm-prdi/>
    <sonet-alarm-rei/>
    <sonet-alarm-uneq/>
    <sonet-alarm-pmis/>
    <sonet-alarm-loc/>
    <sdh-alarm-lol/>
    <sdh-alarm-pll/>
    <sdh-alarm-lof/>
    <sdh-alarm-los/>
    <sdh-alarm-oof/>
    <sdh-alarm-msais/>
    <sdh-alarm-hpais/>
    <sdh-alarm-lop/>
    <sdh-alarm-berr-sd/>
    <sdh-alarm-berr-sf/>
    <sdh-alarm-msferf/>
    <sdh-alarm-hpferf/>
    <sdh-alarm-hpfebe/>
    <sdh-alarm-hpuneq/>
    <sdh-alarm-hpplm/>
    <sdh-alarm-loc/>
    <ds3-alarm-pll/>
    <ds3-alarm-ais/>
    <ds3-alarm-lof/>
    <ds3-alarm-los/>
    <ds3-alarm-lcv/>
    <ds3-alarm-exz/>
    <ds3-alarm-ferf/>
    <ds3-alarm-ylw/>
    <ds3-alarm-idle/>
    <ds1-alarm-ais/>
    <ds1-alarm-lof/>
    <ds1-alarm-los/>
    <ds1-alarm-ylw/>
    <ethernet-alarm-link-down/>
    <generic-value>generic-value</generic-value>
  </interface-alarms>
</active-alarms | active-defects>
```

Description Container tag for interface alarms.

Contents <alarm-not-present>—No alarm indicated.

<ds1-alarm-ais>—AIS alarm.

<ds1-alarm-lof>—Loss of frame alarm.

<ds1-alarm-los>—Loss of signal alarm.

<ds1-alarm-ylw>—Yellow alarm.

<ds3-alarm-ais>—AIS alarm.

<ds3-alarm-exz>—Excessive zeros alarm.

<ds3-alarm-ferf>—Far-end receive failure alarm.

<ds3-alarm-idle>—Idle alarm.

<ds3-alarm-lcv>—Line code violation alarm.

<ds3-alarm-lof>—Loss of frame alarm.

<ds3-alarm-los>—Loss of signal alarm.

<ds3-alarm-pll>—PLL lock alarm.

<ds3-alarm-ylw>—Yellow alarm.

<ethernet-alarm-link-down>—Link alive failure.

<generic-value>—Hexadecimal value of unknown flag bits.

<sdh-alarm-berr-sd>—Bit error rate alarm, defect.

<sdh-alarm-berr-sf>—Bit error rate alarm, fault.

<sdh-alarm-hpais>—High order path AIS alarm.

<sdh-alarm-hpfebe>—High order path far-end block error alarm.

<sdh-alarm-hpferf>—High order path far-end remote failure alarm.

<sdh-alarm-hpplm>—High order path payload level mismatch alarm.

<sdh-alarm-hpuneq>—High order path unequipped alarm.

<sdh-alarm-loc>—Loss of cell delineation alarm.

<sdh-alarm-lof>—Loss of frame alarm.

<sdh-alarm-lol>—Loss of light alarm.

<sdh-alarm-lop>—Loss of pointer alarm.

<sdh-alarm-los>—Loss of signal alarm.

<sdh-alarm-msais>—Multiplex section AIS alarm.

<sdh-alarm-msferf>—Multiplex section far-end remote failure alarm.

<sdh-alarm-oof>—Out of frame alarm.

<sdh-alarm-pll>—PLL lock alarm.

<sonet-alarm-berr-sd>—Bit error rate alarm, defect.

<sonet-alarm-berr-sf>—Bit error rate alarm, fault.

<sonet-alarm-lais>—Line AIS alarm.

<sonet-alarm-loc>—Loss of cell delineation alarm.

<sonet-alarm-lof>—Loss of frame alarm.

<sonet-alarm-lol>—Loss of light alarm.

<sonet-alarm-lop>—Loss of pointer alarm.

<sonet-alarm-los>—Loss of signal alarm.

<sonet-alarm-lrdi>—Line remote defect indicator alarm.

<sonet-alarm-pais>—Path AIS alarm.

<sonet-alarm-pll>—PLL lock alarm.

<sonet-alarm-pmis>—Path payload level mismatch alarm.

<sonet-alarm-prdi>—Path remote defect indicator alarm.

<sonet-alarm-rei>—Path remote error indicator alarm.

<sonet-alarm-sef>—Severely errored frame alarm.

<sonet-alarm-uneq>—Unequipped alarm.

< interface-filter-information >

Usage

```
<rpc-reply>
  <interface-filter-information>
    <physical-interface>...</physical-interface>
    <logical-interface>...</logical-interface>
  </interface-filter-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <logical-interface>—Information about a single logical interface.

<physical-interface>—Information about a single physical interface.

< *interface-information* >

Usage

```
<rpc-reply>
  <interface-information>
    <physical-interface>...</physical-interface>
    <logical-interface>...</logical-interface>
    <controller>...</controller>
  </interface-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <controller>—No documentation is available yet.

<logical-interface>—Information about a single logical interface.

<physical-interface>—Information about a single physical interface.

< *interface-policer-information* >

Usage

```
<rpc-reply>
  <interface-policer-information>
    <physical-interface>...</physical-interface>
    <logical-interface>...</logical-interface>
  </interface-policer-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <logical-interface>—Information about a single logical interface.

<physical-interface>—Information about a single physical interface.

< *interface-tx-queue* >

Usage

```
<ct3-information | coc12-information | cds1-information | nxds0-information>
  <interface-tx-queue>
    <name>name</name>
    <bandwidth>bandwidth</bandwidth>
    <wrr>wrr</wrr>
    <output-packets>output-packets</output-packets>
    <output-bytes>output-bytes</output-bytes>
    <output-drops>output-drops</output-drops>
    <output-drops-bytes>output-drops-bytes</output-drops-bytes>
    <output-errors>output-errors</output-errors>
  </interface-tx-queue>
</ct3-information | coc12-information | cds1-information | nxds0-information>
```

Description No documentation is available yet.

Contents <bandwidth>—No documentation is available yet.

<name>—Name of this item.

<output-bytes>—No documentation is available yet.

<output-drops>—Number of packets dropped by the output queue of the I/O Manager ASIC. If the interface is saturated, this number increments once for every packet that is dropped by the ASIC's RED mechanism.

<output-drops-bytes>—No documentation is available yet.

<output-errors>—Sum of the outgoing frame aborts and FCS errors.

<output-packets>—No documentation is available yet.

<wrr>—No documentation is available yet.

< *interval* >

Usage

```
<interval-information>
  <interval>
    <range>range</range>
    <media-alarm>...</media-alarm>
  </interval>
</interval-information>
```

Description Statistics for a single interval.

Contents <media-alarm>—No documentation is available yet.

<range>—Time range for this interval.

< *interval-information* >

Usage

```
<physical-interface>
  <interval-information>
    <interval>...</interval>
  </interval-information>
</physical-interface>
```

Description No documentation is available yet.

Contents <interval>—Statistics for a single interval.

< keepalive-config >

Usage

```
<physical-interface>
  <keepalive-config>
    <keepalive-interval>keepalive-interval</keepalive-interval>
    <keepalive-up-count>keepalive-up-count</keepalive-up-count>
    <keepalive-down-count>keepalive-down-count</keepalive-down-count>
  </keepalive-config>
</physical-interface>
```

Description Configured keepalive settings on this interface.

Contents <keepalive-down-count>—No documentation is available yet.

<keepalive-interval>—No documentation is available yet.

<keepalive-up-count>—No documentation is available yet.

< keepalive-statistics >

Usage

```
<physical-interface>
  <keepalive-statistics>
    <keepalive-lmi-descriptor>keepalive-lmi-descriptor</keepalive-lmi-descriptor>
    <keepalive-input-count>keepalive-input-count</keepalive-input-count>
    <keepalive-input-time>keepalive-input-time</keepalive-input-time>
    <keepalive-output-count>keepalive-output-count</keepalive-output-count>
    <keepalive-output-time>keepalive-output-time</keepalive-output-time>
  </keepalive-statistics>
</physical-interface>
```

Description Keepalive statistics for this interface.

Contents <keepalive-input-count>—No documentation is available yet.

<keepalive-input-time>—No documentation is available yet.

<keepalive-lmi-descriptor>—No documentation is available yet.

<keepalive-output-count>—No documentation is available yet.

<keepalive-output-time>—No documentation is available yet.

< *lag-bundle* >

Usage

```
<lag-traffic-statistics>
  <lag-bundle>
    <input-packets>input-packets</input-packets>
    <input-pps>input-pps</input-pps>
    <input-bytes>input-bytes</input-bytes>
    <input-bps>input-bps</input-bps>
    <output-packets>output-packets</output-packets>
    <output-pps>output-pps</output-pps>
    <output-bytes>output-bytes</output-bytes>
    <output-bps>output-bps</output-bps>
  </lag-bundle>
</lag-traffic-statistics>
```

Description No documentation is available yet.

Contents <input-bps>—No documentation is available yet.

<input-bytes>—No documentation is available yet.

<input-packets>—No documentation is available yet.

<input-pps>—No documentation is available yet.

<output-bps>—No documentation is available yet.

<output-bytes>—No documentation is available yet.

<output-packets>—No documentation is available yet.

<output-pps>—No documentation is available yet.

< *lag-link* >

Usage

```
<lag-traffic-statistics>
  <lag-link>
    <name>name</name>
    <down/>
    <input-packets>input-packets</input-packets>
    <input-pps>input-pps</input-pps>
    <input-bytes>input-bytes</input-bytes>
    <input-bps>input-bps</input-bps>
    <output-packets>output-packets</output-packets>
    <output-pps>output-pps</output-pps>
    <output-bytes>output-bytes</output-bytes>
    <output-bps>output-bps</output-bps>
  </lag-link>
</lag-traffic-statistics>
```

Description No documentation is available yet.

Contents <down>—Link is down.

<input-bps>—No documentation is available yet.

<input-bytes>—No documentation is available yet.

<input-packets>—No documentation is available yet.

<input-pps>—No documentation is available yet.

<name>—Name of this item.

<output-bps>—No documentation is available yet.

<output-bytes>—No documentation is available yet.

<output-packets>—No documentation is available yet.

<output-pps>—No documentation is available yet.

< lag-marker >

Usage

```
<lag-traffic-statistics>
  <lag-marker>
    <name>name</name>
    <marker-rx-packets>marker-rx-packets</marker-rx-packets>
    <marker-response-tx-packets>response-tx-packets</marker-response-tx-packets>
    <unknown-rx-packets>unknown-rx-packets</unknown-rx-packets>
    <illegal-rx-packets>illegal-rx-packets</illegal-rx-packets>
  </lag-marker>
</lag-traffic-statistics>
```

Description No documentation is available yet.

Contents

<illegal-rx-packets>—No documentation is available yet.

<marker-response-tx-packets>—No documentation is available yet.

<marker-rx-packets>—No documentation is available yet.

<name>—Name of this item.

<unknown-rx-packets>—No documentation is available yet.

< *lag-traffic-statistics* >

Usage

```
<logical-interface>
  <lag-traffic-statistics>
    <lag-bundle>...</lag-bundle>
    <lag-link>...</lag-link>
    <lag-marker>...</lag-marker>
  </lag-traffic-statistics>
</logical-interface>
```

Description No documentation is available yet.

Contents <lag-bundle>—No documentation is available yet.

<lag-link>—No documentation is available yet.

<lag-marker>—No documentation is available yet.

< *link* >

Usage

```
<multilink-traffic-statistics>
  <link>
    <name>name</name>
    <down/>
    <input-frames>input-frames</input-frames>
    <input-fps>input-fps</input-fps>
    <input-bytes>input-bytes</input-bytes>
    <input-bps>input-bps</input-bps>
    <output-frames>output-frames</output-frames>
    <output-fps>output-fps</output-fps>
    <output-bytes>output-bytes</output-bytes>
    <output-bps>output-bps</output-bps>
  </link>
</multilink-traffic-statistics>
```

Description No documentation is available yet.

Contents <down>—Link is down.

<input-bps>—No documentation is available yet.

<input-bytes>—No documentation is available yet.

<input-fps>—No documentation is available yet.

<input-frames>—No documentation is available yet.

<name>—Name of this item.

<output-bps>—No documentation is available yet.

<output-bytes>—No documentation is available yet.

<output-fps>—No documentation is available yet.

<output-frames>—No documentation is available yet.

< *lmi-dce-config* >

Usage

```
<physical-interface>
  <lmi-dce-config>
    <lmi-type>lmi-type</lmi-type>
    <lmi-n392dce>lmi-n392dce</lmi-n392dce>
    <lmi-n393dce>lmi-n393dce</lmi-n393dce>
    <lmi-t392dce>lmi-t392dce</lmi-t392dce>
  </lmi-dce-config>
</physical-interface>
```

Description Configured LMI DCE setting on this interface.

Contents <lmi-n392dce>—No documentation is available yet.

<lmi-n393dce>—No documentation is available yet.

<lmi-t392dce>—No documentation is available yet.

<lmi-type>—No documentation is available yet.

< *lmi-dte-config* >

Usage

```
<physical-interface>
  <lmi-dte-config>
    <lmi-type>lmi-type</lmi-type>
    <lmi-n391dte>lmi-n391dte</lmi-n391dte>
    <lmi-n392dte>lmi-n392dte</lmi-n392dte>
    <lmi-n393dte>lmi-n393dte</lmi-n393dte>
    <lmi-t391dte>lmi-t391dte</lmi-t391dte>
  </lmi-dte-config>
</physical-interface>
```

Description Configured LMI DTE setting on this interface.

Contents <lmi-n391dte>—No documentation is available yet.

<lmi-n392dte>—No documentation is available yet.

<lmi-n393dte>—No documentation is available yet.

<lmi-t391dte>—No documentation is available yet.

<lmi-type>—No documentation is available yet.

< *local-traffic-statistics* >

Usage

```
<logical-interface>
  <local-traffic-statistics>
    <input-bytes>input-bytes</input-bytes>
    <output-bytes>output-bytes</output-bytes>
    <input-bps>input-bps</input-bps>
    <output-bps>output-bps</output-bps>
    <input-packets>input-packets</input-packets>
    <output-packets>output-packets</output-packets>
    <input-pps>input-pps</input-pps>
    <output-pps>output-pps</output-pps>
  </local-traffic-statistics>
</logical-interface>
```

Description Statistics for traffic received from and transmitted to the Routing Engine. When a burst of traffic is received, the value in the output packet rate field might briefly exceed the peak cell rate. It takes a while (generally less than 1 second) for this counter to stabilize.

Contents <input-bps>—No documentation is available yet.

<input-bytes>—No documentation is available yet.

<input-packets>—No documentation is available yet.

<input-pps>—No documentation is available yet.

<output-bps>—No documentation is available yet.

<output-bytes>—No documentation is available yet.

<output-packets>—No documentation is available yet.

<output-pps>—No documentation is available yet.

< *logical-interface* >

Usage

```
<physical-interface | interface-information | interface-filter-information |
interface-policer-information>
  <logical-interface>
    <name>name</name>
    <admin-status>admin-status</admin-status>
    <oper-status>oper-status</oper-status>
    <local-index>local-index</local-index>
    <snmp-index>snmp-index</snmp-index>
    <generation>generation</generation>
    <description>description</description>
    <if-config-flags>...</if-config-flags>
    <link-address>link-address</link-address>
    <encapsulation>encapsulation</encapsulation>
    <logical-interface-bandwidth>logical-interface-bandwidth</logical-interface-bandwidth>
    <multilink-bundle-options>...</multilink-bundle-options>
    <multilink-bundle-errors>...</multilink-bundle-errors>
    <multilink-traffic-statistics>...</multilink-traffic-statistics>
    <traffic-statistics>...</traffic-statistics>
    <local-traffic-statistics>...</local-traffic-statistics>
    <transit-traffic-statistics>...</transit-traffic-statistics>
    <virtual-circuit-information>...</virtual-circuit-information>
    <filter-information>...</filter-information>
    <policer-information>...</policer-information>
    <address-family>...</address-family>
    <in-arp-statistics>...</in-arp-statistics>
    <lag-traffic-statistics>...</lag-traffic-statistics>
  </logical-interface>
</physical-interface | interface-information | interface-filter-information |
interface-policer-information>
```

Description Information about a single logical interface.

Contents <address-family>—No documentation is available yet.

<admin-status>—The desired state of the interface.

<description>—Description of this interface.

<encapsulation>—Encapsulation on the logical interface.

<filter-information>—No documentation is available yet.

<generation>—Generation number used to distinguish between successive instances of this interface.

<if-config-flags>—No documentation is available yet.

<in-arp-statistics>—Container tag for ARP statistics.

<lag-traffic-statistics>—No documentation is available yet.

<link-address>—Link address on this logical interface.

<local-index>—Local kernel index for this interface.

<local-traffic-statistics>—Statistics for traffic received from and transmitted to the Routing Engine. When a burst of traffic is received, the value in the output packet rate field might briefly exceed the peak cell rate. It takes a while (generally less than 1 second) for this counter to stabilize.

<logical-interface-bandwidth>—Bandwidth of this logical interface.

<multilink-bundle-errors>—No documentation is available yet.

<multilink-bundle-options>—No documentation is available yet.

<multilink-traffic-statistics>—No documentation is available yet.

<name>—Name of this item.

<oper-status>—The current operational state of the interface.

<policer-information>—Interface policer information.

<snmp-index>—SNMP ifIndex for this interface.

<traffic-statistics>—Number and rate of bytes and packets received and transmitted on the physical interface.

<transit-traffic-statistics>—Statistics for traffic passing through the router. When a burst of traffic is received, the value in the output packet rate field might briefly exceed the peak cell rate. The counter usually stabilizes in 1 second or less.

<virtual-circuit-information>—Operational information and statistics for a virtual circuit.

< *ls-mfr-bundle-options* >

Usage

```
<physical-interface>
  <ls-mfr-bundle-options>
    <mfr-device-type>mfr-device-type</mfr-device-type>
    <mfr-mrru>mfr-mrru</mfr-mrru>
    <red-differential-delay>red-differential-delay</red-differential-delay>
    <red-differential-delay-action>red-differential-delay-action</red-differential-delay-action>
    <yellow-differential-delay>yellow-differential-delay</yellow-differential-delay>
    <lip-hello-timer>lip-hello-timer</lip-hello-timer>
    <lip-ack-timer>lip-ack-timer</lip-ack-timer>
    <lip-ack-retries>lip-ack-retries</lip-ack-retries>
    <bundle-class>bundle-class</bundle-class>
    <mfr-drop-timeout>mfr-drop-timeout</mfr-drop-timeout>
    <mfr-lmi-type>mfr-lmi-type</mfr-lmi-type>
    <mfr-fragment-threshold>mfr-fragment-threshold</mfr-fragment-threshold>
    <mfr-minimum-links>mfr-minimum-links</mfr-minimum-links>
    <t391>t391</t391>
    <t392>t392</t392>
    <n391>n391</n391>
    <n392>n392</n392>
    <n393>n393</n393>
  </ls-mfr-bundle-options>
</physical-interface>
```

Description No documentation is available yet.

Contents

<bundle-class>—Type of bundle class, A, B or C.

<lip-ack-retries>—The maximum number of retransmissions for HELLO and LINK_ADD.

<lip-ack-timer>—The timer to wait for an HELLO_ACK, ADD_LINK_ACK, or REMOVE_LINK_ACK.

<lip-hello-timer>—The timer for sending periodical hello to the remote endpoint.

<mfr-device-type>—LMI device type of this MFR bundle instance.

<mfr-drop-timeout>—The timer to wait for all fragments of a complete packet arrive.

<mfr-fragment-threshold>—The fragment size of this MFR bundle instance.

<mfr-lmi-type>—The LMI type, ANSI or Q.933A, of this MFR bundle instance.

<mfr-minimum-links>—The minimum number of links to sustain this MFR bundle instance.

<mfr-mrru>—Maximum RRU size of this MFR bundle instance.

<n391>—MFR Full status polling counter.

<n392>—MFR LMI error threshold.

<n393>—MFR LMI monitored event count.

<red-differential-delay>—The maximum allowable differential delay of this MFR bundle instance.

<red-differential-delay-action>—The action (remove link from bundle or disable transmit) when exceeding red limit.

<t391>—MFR link integrity verify polling timer.

<t392>—MFR polling verification timer.

<yellow-differential-delay>—The maximum allowable differential delay of this MFR bundle instance.

< *ls-mfr-traffic-statistics* >

Usage

```
<physical-interface>
  <ls-mfr-traffic-statistics>
    <bundle>...</bundle>
    <mfr-link-info>...</mfr-link-info>
    <mfr-link>...</mfr-link>
  </ls-mfr-traffic-statistics>
</physical-interface>
```

Description No documentation is available yet.

Contents <bundle>—No documentation is available yet.

<mfr-link>—No documentation is available yet.

<mfr-link-info>—No documentation is available yet.

< *media-alarm* >

Usage

```
<sonet-errors | sonet-physical-information | sonet-section-information |
sonet-line-information | sonet-path-information | sonet-vt-information | media-information |
plcp-defects | atm-defects | interval>
  <media-alarm>
    <media-alarm-name>media-alarm-name</media-alarm-name>
    <media-alarm-seconds>media-alarm-seconds</media-alarm-seconds>
    <media-alarm-count>media-alarm-count</media-alarm-count>
    <media-alarm-state>media-alarm-state</media-alarm-state>
  </media-alarm>
</sonet-errors | sonet-physical-information | sonet-section-information |
sonet-line-information | sonet-path-information | sonet-vt-information | media-information |
plcp-defects | atm-defects | interval>
```

Description No documentation is available yet.

Contents <media-alarm-count>—No documentation is available yet.

<media-alarm-name>—No documentation is available yet.

<media-alarm-seconds>—No documentation is available yet.

<media-alarm-state>—No documentation is available yet.

< *media-information* >

Usage

```
<physical-interface>
  <media-information>
    <media-alarm>...</media-alarm>
    <ds1-timeslots>ds1-timeslots</ds1-timeslots>
    <ds1-line-encoding>ds1-line-encoding</ds1-line-encoding>
    <ds1-byte-encoding>ds1-byte-encoding</ds1-byte-encoding>
    <ds1-data-inversion>ds1-data-inversion</ds1-data-inversion>
    <ds1-buildout>ds1-buildout</ds1-buildout>
    <media-type>media-type</media-type>
  </media-information>
</physical-interface>
```

Description Information about media alarms.

Contents <ds1-buildout>—Number of feet.

<ds1-byte-encoding>—No documentation is available yet.

<ds1-data-inversion>—No documentation is available yet.

<ds1-line-encoding>—No documentation is available yet.

<ds1-timeslots>—No documentation is available yet.

<media-alarm>—No documentation is available yet.

<media-type>—The type of media this information is for.

< *mfr-link* >

Usage

```
<ls-mfr-traffic-statistics>
  <mfr-link>
    <name>name</name>
    <down/>
    <input-frames>input-frames</input-frames>
    <input-fps>input-fps</input-fps>
    <input-bytes>input-bytes</input-bytes>
    <input-bps>input-bps</input-bps>
    <output-frames>output-frames</output-frames>
    <output-fps>output-fps</output-fps>
    <output-bytes>output-bytes</output-bytes>
    <output-bps>output-bps</output-bps>
    <lip-header-string>lip-header-string</lip-header-string>
    <current-differential-delay>current-differential-delay</current-differential-delay>
    <recent-high-differential-delay>high-differential-delay</recent-high-differential-delay>
    <over-red-differential>over-red-differential</over-red-differential>
    <over-yellow-differential>over-yellow-differential</over-yellow-differential>
    <rcv-lip-addlink>rcv-lip-addlink</rcv-lip-addlink>
    <rcv-lip-link-ack>rcv-lip-link-ack</rcv-lip-link-ack>
    <rcv-lip-link-rej>rcv-lip-link-rej</rcv-lip-link-rej>
    <rcv-lip-hello>rcv-lip-hello</rcv-lip-hello>
    <rcv-lip-hello-ack>rcv-lip-hello-ack</rcv-lip-hello-ack>
    <rcv-lip-link-rem>rcv-lip-link-rem</rcv-lip-link-rem>
    <rcv-lip-rem-ack>rcv-lip-rem-ack</rcv-lip-rem-ack>
    <xmt-lip-addlink>xmt-lip-addlink</xmt-lip-addlink>
    <xmt-lip-link-ack>xmt-lip-link-ack</xmt-lip-link-ack>
    <xmt-lip-link-rej>xmt-lip-link-rej</xmt-lip-link-rej>
    <xmt-lip-hello>xmt-lip-hello</xmt-lip-hello>
    <xmt-lip-hello-ack>xmt-lip-hello-ack</xmt-lip-hello-ack>
    <xmt-lip-link-rem>xmt-lip-link-rem</xmt-lip-link-rem>
    <xmt-lip-rem-ack>xmt-lip-rem-ack</xmt-lip-rem-ack>
  </mfr-link>
</ls-mfr-traffic-statistics>
```

Description No documentation is available yet.

Contents <current-differential-delay>—The current differential delay of this bundle link.

<down>—Link is down.

<input-bps>—No documentation is available yet.

<input-bytes>—No documentation is available yet.

<input-fps>—No documentation is available yet.

<input-frames>—No documentation is available yet.

<lip-header-string>—The header string of the LIP display.

<name>—Name of this item.

<output-bps>—No documentation is available yet.

<output-bytes>—No documentation is available yet.

<output-fps>—No documentation is available yet.

<output-frames>—No documentation is available yet.

<over-red-differential>—Number of times over red differential delay.

<over-yellow-differential>—Number of times over yellow differential delay.

<rcv-lip-addlink>—Number of LIP ADD_LINKs received.

<rcv-lip-hello>—Number of LIP HELLOs received.

<rcv-lip-hello-ack>—Number of LIP HELLO_ACKs received.

<rcv-lip-link-ack>—Number of LIP ADD_LINK_ACKs received.

<rcv-lip-link-rej>—Number of LIP ADD_LINK_REJs received.

<rcv-lip-link-rem>—Number of LIP LINK_REMOVEs received.

<rcv-lip-rem-ack>—Number of LIP LINK_REMOVE_ACKs received.

<recent-high-differential-delay>—The recent highest differential delay of this bundle link (in every 256 measurements.

<xmt-lip-addlink>—Number of LIP ADD_LINKs transmitted.

<xmt-lip-hello>—Number of LIP HELLOs transmitted.

<xmt-lip-hello-ack>—Number of LIP HELLO_ACKs transmitted.

<xmt-lip-link-ack>—Number of LIP LINK_ACKs transmitted.

<xmt-lip-link-rej>—Number of LIP LINK_REJs transmitted.

<xmt-lip-link-rem>—Number of LIP LINK_REMOVEs transmitted.

<xmt-lip-rem-ack>—Number of LIP LINK_REMOVE_ACKs transmitted.

< *mfr-link-info* >

Usage

```
<ls-mfr-traffic-statistics>
  <mfr-link-info>
    <active-bundle-links>active-bundle-links</active-bundle-links>
    <removed-bundle-links>removed-bundle-links</removed-bundle-links>
    <disabled-bundle-links>disabled-bundle-links</disabled-bundle-links>
  </mfr-link-info>
</ls-mfr-traffic-statistics>
```

Description No documentation is available yet.

Contents <active-bundle-links>—Number of active bundle links in this MFR bundle instance.

<disabled-bundle-links>—Number of bundle links that are not allowed to transmit in this MFR bundle instance.

<removed-bundle-links>—Number of bundle links that are removed from service in this MFR bundle instance.

< *multilink-bundle-errors* >

Usage

```
<physical-interface | logical-interface>
  <multilink-bundle-errors>
    <packet-drops>packet-drops</packet-drops>
    <packet-drop-bytes>packet-drop-bytes</packet-drop-bytes>
    <fragment-drops>fragment-drops</fragment-drops>
    <fragment-drop-bytes>fragment-drop-bytes</fragment-drop-bytes>
    <mrru-exceeded>mrru-exceeded</mrru-exceeded>
    <processing-errors>processing-errors</processing-errors>
  </multilink-bundle-errors>
</physical-interface | logical-interface>
```

Description No documentation is available yet.

Contents <fragment-drop-bytes>—Number of bytes in dropped fragments.

<fragment-drops>—Number of fragments dropped.

<mrru-exceeded>—Number of assembled packets that exceeded MRRU.

<packet-drop-bytes>—Number of bytes in dropped packets.

<packet-drops>—Number of packets dropped.

<processing-errors>—Number of errors encountered in assembling packets.

< multilink-bundle-options >

Usage

```
<logical-interface>
  <multilink-bundle-options>
    <mrru>mrru</mrru>
    <drop-timeout>drop-timeout</drop-timeout>
    <sequence-number-format>sequence-number-format</sequence-number-format>
    <fragment-threshold>fragment-threshold</fragment-threshold>
    <minimum-links>minimum-links</minimum-links>
  </multilink-bundle-options>
</logical-interface>
```

Description No documentation is available yet.

Contents <drop-timeout>—No documentation is available yet.

<fragment-threshold>—No documentation is available yet.

<minimum-links>—No documentation is available yet.

<mrru>—No documentation is available yet.

<sequence-number-format>—No documentation is available yet.

< multilink-interface-errors >

Usage

```
<physical-interface>
  <multilink-interface-errors>
    <oversized-frames>oversized-frames</oversized-frames>
    <input-error-frames>input-error-frames</input-error-frames>
    <input-disabled-bundle>input-disabled-bundle</input-disabled-bundle>
    <output-disabled-bundle>output-disabled-bundle</output-disabled-bundle>
    <queuing-drops>queuing-drops</queuing-drops>
    <packet-buffer-overflow>packet-buffer-overflow</packet-buffer-overflow>
    <fragment-buffer-overflow>fragment-buffer-overflow</fragment-buffer-overflow>
    <fragment-timeout>fragment-timeout</fragment-timeout>
    <sequence-number-missing>sequence-number-missing</sequence-number-missing>
    <out-of-order-sequence-number>sequence-number</out-of-order-sequence-number>
    <out-of-range-sequence-number>sequence-number</out-of-range-sequence-number>
    <data-memory-error>data-memory-error</data-memory-error>
    <control-memory-error>control-memory-error</control-memory-error>
  </multilink-interface-errors>
</physical-interface>
```

Description No documentation is available yet.

Contents <control-memory-error>—Errors detected in control memory.

<data-memory-error>—Errors detected in data memory.

<fragment-buffer-overflow>—Number of times the fragment data buffer overflowed.

<fragment-timeout>—Fragments timed out during assembly.

<input-disabled-bundle>—Count of packets received on a disabled link or bundle.

<input-error-frames>—Number of frames for which an error occurred on input.

<out-of-order-sequence-number>—Fragments with an out-of-order sequence number.

<out-of-range-sequence-number>—Fragments with an out-of-range sequence number.

<output-disabled-bundle>—Count of packets transmitted on a disabled link or bundle.

<oversized-frames>—Number of oversized frames detected.

<packet-buffer-overflow>—Number of times the packet data buffer overflowed.

<queuing-drops>—Count of packets dropped by the output queue of the I/O Manager ASIC.

<sequence-number-missing>—Gap detected in sequence numbers.

< *multilink-traffic-statistics* >

Usage

```
<logical-interface>
  <multilink-traffic-statistics>
    <bundle>...</bundle>
    <link>...</link>
  </multilink-traffic-statistics>
</logical-interface>
```

Description No documentation is available yet.

Contents <bundle>—No documentation is available yet.

<link>—No documentation is available yet.

< *ncp-information* >

Usage

```
<physical-interface>
  <ncp-information>
    <ncp-protocol>ncp-protocol</ncp-protocol>
    <ncp-state>ncp-state</ncp-state>
  </ncp-information>
</physical-interface>
```

Description Network Control Protocol (NCP) information.

Contents <ncp-protocol>—Network protocol for this NCP instance.

<ncp-state>—State of this NCP instance.

< *nxds0-information* >

Usage

```
<physical-interface>
  <nxds0-information>
    <interface-tx-queue>...</interface-tx-queue>
  </nxds0-information>
</physical-interface>
```

Description No documentation is available yet.

Contents <interface-tx-queue>—No documentation is available yet.

< *oam-parameters* >

Usage

```
<virtual-path-information | virtual-circuit-information>
  <oam-parameters>
    <period>period</period>
    <up-count>up-count</up-count>
    <down-count>down-count</down-count>
  </oam-parameters>
</virtual-path-information | virtual-circuit-information>
```

Description No documentation is available yet.

Contents <down-count>—No documentation is available yet.

<period>—No documentation is available yet.

<up-count>—No documentation is available yet.

< *oam-statistics* >

Usage

```
<virtual-path-information | virtual-circuit-information>
  <oam-statistics>
    <oam-loopback-received-count>received-count</oam-loopback-received-count>
    <oam-loopback-received-last>received-last</oam-loopback-received-last>
    <oam-loopback-transmitted-count>count</oam-loopback-transmitted-count>
    <oam-loopback-transmitted-last>transmitted-last</oam-loopback-transmitted-last>
    <oam-rdi-received-count>oam-rdi-received-count</oam-rdi-received-count>
    <oam-rdi-received-last>oam-rdi-received-last</oam-rdi-received-last>
    <oam-rdi-transmitted-count>oam-rdi-transmitted-count</oam-rdi-transmitted-count>
    <oam-rdi-transmitted-last>oam-rdi-transmitted-last</oam-rdi-transmitted-last>
    <oam-ais-received-count>oam-ais-received-count</oam-ais-received-count>
    <oam-ais-received-last>oam-ais-received-last</oam-ais-received-last>
    <oam-total-transmitted-count>transmitted-count</oam-total-transmitted-count>
    <oam-total-received-count>oam-total-received-count</oam-total-received-count>
  </oam-statistics>
</virtual-path-information | virtual-circuit-information>
```

Description Container tag for OAM statistics.

Contents <oam-ais-received-count>—No documentation is available yet.

<oam-ais-received-last>—No documentation is available yet.

<oam-loopback-received-count>—No documentation is available yet.

<oam-loopback-received-last>—No documentation is available yet.

<oam-loopback-transmitted-count>—No documentation is available yet.

<oam-loopback-transmitted-last>—No documentation is available yet.

<oam-rdi-received-count>—No documentation is available yet.

<oam-rdi-received-last>—No documentation is available yet.

<oam-rdi-transmitted-count>—No documentation is available yet.

<oam-rdi-transmitted-last>—No documentation is available yet.

<oam-total-received-count>—No documentation is available yet.

<oam-total-transmitted-count>—No documentation is available yet.

< *output-error-list* >

Usage

```
<physical-interface>
  <output-error-list>
    <carrier-transitions>carrier-transitions</carrier-transitions>
    <output-errors>output-errors</output-errors>
    <output-drops>output-drops</output-drops>
    <output-collisions>output-collisions</output-collisions>
    <output-hs-link-fifo-overflows>fifo-overflows</output-hs-link-fifo-overflows>
    <aged-packets>aged-packets</aged-packets>
    <output-fifo-errors>output-fifo-errors</output-fifo-errors>
    <hs-link-fifo-underflows>hs-link-fifo-underflows</hs-link-fifo-underflows>
    <hs-link-crc-errors>hs-link-crc-errors</hs-link-crc-errors>
  </output-error-list>
</physical-interface>
```

Description Output errors on this interface.

Contents <aged-packets>—Number of packets that remained in shared packet SDRAM for so long that the system automatically purged them. The value in this field should never increment. If it does, it is most likely a software bug or possible broken hardware.

<carrier-transitions>—Number of times the interface has gone from down to up. This number should not increment quickly, increasing, for example, only when the cable is unplugged or the far-end system is powered down and up. If it does increment quickly (perhaps 1 every 10 seconds), then something is broken: either the cable, the far-end system, or the PIC.

<hs-link-crc-errors>—Count of errors on the high-speed links between the ASICs responsible for handling the router interfaces.

<hs-link-fifo-underflows>—Numbers of errors on the high-speed links between the ASICs responsible for handling the router interfaces. The value in this field should always be 0. If it increments, either the FPC or the PIC is broken.

<output-collisions>—Number of Ethernet collisions. The Gigabit Ethernet PIC and Fast Ethernet PIC support only full-duplex operation, so this number should always remain 0. If it is nonzero, there is a software bug.

<output-drops>—Number of packets dropped by the output queue of the I/O Manager ASIC. If the interface is saturated, this number increments once for every packet that is dropped by the ASIC's RED mechanism.

<output-errors>—Sum of the outgoing frame aborts and FCS errors.

<output-fifo-errors>—No documentation is available yet.

<output-hs-link-fifo-overflows>—No documentation is available yet.

<packets>

Usage

```
<bundle>
  <packets>
    <input-frames>input-frames</input-frames>
    <input-fps>input-fps</input-fps>
    <input-bytes>input-bytes</input-bytes>
    <input-bps>input-bps</input-bps>
    <output-frames>output-frames</output-frames>
    <output-fps>output-fps</output-fps>
    <output-bytes>output-bytes</output-bytes>
    <output-bps>output-bps</output-bps>
  </packets>
</bundle>
```

Description No documentation is available yet.

Contents

<input-bps>—No documentation is available yet.

<input-bytes>—No documentation is available yet.

<input-fps>—No documentation is available yet.

<input-frames>—No documentation is available yet.

<output-bps>—No documentation is available yet.

<output-bytes>—No documentation is available yet.

<output-fps>—No documentation is available yet.

<output-frames>—No documentation is available yet.

< *pfe-information* >

Usage

```
<physical-interface>
  <pfe-information>
    <destination-slot>destination-slot</destination-slot>
    <destination-mask>destination-mask</destination-mask>
    <stream-number>stream-number</stream-number>
    <stream-mask>stream-mask</stream-mask>
    <plp-byte>plp-byte</plp-byte>
    <plp-byte-count>plp-byte-count</plp-byte-count>
  </pfe-information>
</physical-interface>
```

Description Information about Packet Forwarding Engine configuration.

Contents <destination-mask>—No documentation is available yet.

<destination-slot>—No documentation is available yet.

<plp-byte>—No documentation is available yet.

<plp-byte-count>—No documentation is available yet.

<stream-mask>—No documentation is available yet.

<stream-number>—No documentation is available yet.

< *physical-interface* >

Usage

```
<interface-information | interface-filter-information | interface-policer-information>
  <physical-interface>
    <name>name</name>
    <admin-status>admin-status</admin-status>
    <oper-status>oper-status</oper-status>
    <local-index>local-index</local-index>
    <snmp-index>snmp-index</snmp-index>
    <generation>generation</generation>
    <description>description</description>
    <if-type>if-type</if-type>
    <link-level-type>link-level-type</link-level-type>
    <mtu>mtu</mtu>
    <speed>speed</speed>
    <clocking>clocking</clocking>
    <sonet-mode>sonet-mode</sonet-mode>
    <loopback>loopback</loopback>
    <ih-parent>ih-parent</ih-parent>
    <atm-line-build-out>atm-line-build-out</atm-line-build-out>
    <atm-encapsulation>atm-encapsulation</atm-encapsulation>
    <atm-e3-framing>atm-e3-framing</atm-e3-framing>
    <sonet-loopback>sonet-loopback</sonet-loopback>
    <crc>crc</crc>
    <payload-scrambler>payload-scrambler</payload-scrambler>
    <ingress-rate-limit>ingress-rate-limit</ingress-rate-limit>
    <source-filtering>source-filtering</source-filtering>
    <if-flow-control>if-flow-control</if-flow-control>
    <minimum-links-in-aggregate>links-in-aggregate</minimum-links-in-aggregate>
    <if-device-flags>...</if-device-flags>
    <if-config-flags>...</if-config-flags>
    <link-type>link-type</link-type>
    <if-media-flags>...</if-media-flags>
    <keepalive-config>...</keepalive-config>
    <lmi-dce-config>...</lmi-dce-config>
    <lmi-dte-config>...</lmi-dte-config>
    <queue-counters>...</queue-counters>
    <keepalive-statistics>...</keepalive-statistics>
    <lcp-state>lcp-state</lcp-state>
    <ncp-information>...</ncp-information>
    <chap-state>chap-state</chap-state>
    <physical-information>physical-information</physical-information>
    <es-ifd-stats>...</es-ifd-stats>
    <up-hold-time>up-hold-time</up-hold-time>
    <down-hold-time>down-hold-time</down-hold-time>
    <current-physical-address>current-physical-address</current-physical-address>
    <hardware-physical-address>hardware-physical-address</hardware-physical-address>
    <alternate-physical-address>alternate-physical-address</alternate-physical-address>
    <interface-flapped>interface-flapped</interface-flapped>
    <statistics-cleared>statistics-cleared</statistics-cleared>
    <traffic-statistics>...</traffic-statistics>
    <multilink-interface-errors>...</multilink-interface-errors>
    <ls-mfr-bundle-options>...</ls-mfr-bundle-options>
    <multilink-bundle-errors>...</multilink-bundle-errors>
    <input-error-list>...</input-error-list>
```

```
    <input-error-count>input-error-count</input-error-count>
    <output-error-list>...</output-error-list>
    <output-error-count>output-error-count</output-error-count>
    <active-alarms>...</active-alarms>
    <active-defects>...</active-defects>
    <sonet-errors>...</sonet-errors>
    <sonet-physical-information>...</sonet-physical-information>
    <sonet-section-information>...</sonet-section-information>
    <sonet-line-information>...</sonet-line-information>
    <sonet-path-information>...</sonet-path-information>
    <sonet-vt-information>...</sonet-vt-information>
    <sonet-rx-overhead>sonet-rx-overhead</sonet-rx-overhead>
    <sonet-tx-overhead>sonet-tx-overhead</sonet-tx-overhead>
    <sonet-rx-path-trace>sonet-rx-path-trace</sonet-rx-path-trace>
    <sonet-tx-path-trace>sonet-tx-path-trace</sonet-tx-path-trace>
    <media-information>...</media-information>
    <ethernet-mac-statistics>...</ethernet-mac-statistics>
    <ethernet-filter-statistics>...</ethernet-filter-statistics>
    <ethernet-autonegotiation>...</ethernet-autonegotiation>
    <atm-information>...</atm-information>
    <virtual-path-information>...</virtual-path-information>
    <ct3-information>...</ct3-information>
    <coc12-information>...</coc12-information>
    <cds1-information>...</cds1-information>
    <nxds0-information>...</nxds0-information>
    <ds3-mode>ds3-mode</ds3-mode>
    <e3-framing>e3-framing</e3-framing>
    <ds1-framing>ds1-framing</ds1-framing>
    <dsu-information>...</dsu-information>
    <ds3-bert-information>...</ds3-bert-information>
    <e3-bert-information>...</e3-bert-information>
    <ds1-bert-information>...</ds1-bert-information>
    <hdlc-information>...</hdlc-information>
    <pfe-information>...</pfe-information>
    <logical-interface>...</logical-interface>
    <cos-information>...</cos-information>
    <ls-mfr-traffic-statistics>...</ls-mfr-traffic-statistics>
    <interval-information>...</interval-information>
  </physical-interface>
</interface-information | interface-filter-information | interface-policer-information>
```

Description Information about a single physical interface.

Contents <active-alarms>—Media-specific defects that can render the interface unable to pass packets. When a defect persists for a certain amount of time, it is promoted to an alarm. Based on the router configuration, an alarm can ring the red or yellow alarm bell on the router, or the red or yellow alarm LED on the craft interface.

<active-defects>—Media-specific defects that can render the interface unable to pass packets. When a defect persists for a certain amount of time, it is promoted to an alarm. Based on the router configuration, an alarm can ring the red or yellow alarm bell on the router, or the red or yellow alarm LED on the craft interface.

<admin-status>—The desired state of the interface.

<alternate-physical-address>—Alternate physical address for this interface.

<atm-e3-framing>—Type of framing.

<atm-encapsulation>—Type of ATM encapsulation.

<atm-information>—Operational information and statistics for ATM interfaces.

<atm-line-build-out>—Line buildout.

<cds1-information>—No documentation is available yet.

<chap-state>—State of the Challenge Handshake Authentication Protocol.

<clocking>—Reference clock source.

<coc12-information>—No documentation is available yet.

<cos-information>—Information about class-of-service configuration.

<crc>—Frame checksum on the interface (either 16 or 32).

<ct3-information>—No documentation is available yet.

<current-physical-address>—Configured physical address for this interface.

<description>—Description of this interface.

<down-hold-time>—Down hold time for this interface, in milliseconds.

<ds1-bert-information>—DS-1 BERT configuration and statistics.

<ds1-framing>—No documentation is available yet.

<ds3-bert-information>—DS-3 BERT configuration and statistics.

<ds3-mode>—No documentation is available yet.

<dsu-information>—DSU configuration and statistics.

<e3-bert-information>—E3 BERT configuration and statistics.

<e3-framing>—No documentation is available yet.

<es-ifd-stats>—Encryption Services PIC statistics.

<ethernet-autonegotiation>—Ethernet autonegotiation information.

<ethernet-filter-statistics>—Ethernet filter statistics.

<ethernet-mac-statistics>—Ethernet MAC statistics.

<generation>—Generation number used to distinguish between successive instances of this interface.

<hardware-physical-address>—Hardware physical address for this interface.

<hdlc-information>—No documentation is available yet.

<if-config-flags>—No documentation is available yet.

<if-device-flags>—No documentation is available yet.

<if-flow-control>—No documentation is available yet.

<if-media-flags>—No documentation is available yet.

<if-type>—No documentation is available yet.

<ih-parent>—Controller parent.

<ingress-rate-limit>—Layer 2 rate limit on ingress traffic for the port.

<input-error-count>—Sum of all input errors on this interface.

<input-error-list>—Input errors on this interface.

<interface-flapped>—Time interface last flapped.

<interval-information>—No documentation is available yet.

<keepalive-config>—Configured keepalive settings on this interface.

<keepalive-statistics>—Keepalive statistics for this interface.

<lcp-state>—State of the Line Control Protocol.

<link-level-type>—Encapsulation being used on the physical interface.

<link-type>—No documentation is available yet.

<lmi-dce-config>—Configured LMI DCE setting on this interface.

<lmi-dte-config>—Configured LMI DTE setting on this interface.

<local-index>—Local kernel index for this interface.

<logical-interface>—Information about a single logical interface.

<loopback>—Whether loopback is enabled and the type of loopback.

<ls-mfr-bundle-options>—No documentation is available yet.

<ls-mfr-traffic-statistics>—No documentation is available yet.

<media-information>—Information about media alarms.

<minimum-links-in-aggregate>—Minimum number of links needed for the bundle to be up.

<mtu>—MTU size on this interface.

<multilink-bundle-errors>—No documentation is available yet.

<multilink-interface-errors>—No documentation is available yet.

<name>—Name of this item.

<ncp-information>—Network Control Protocol (NCP) information.

<nxds0-information>—No documentation is available yet.

<oper-status>—The current operational state of the interface.

<output-error-count>—Sum of all output errors on this interface.

<output-error-list>—Output errors on this interface.

<payload-scrambler>—Whether payload scrambling is enabled.

<pfe-information>—Information about Packet Forwarding Engine configuration.

<physical-information>—No documentation is available yet.

<queue-counters>—Queue counter statistics.

<snmp-index>—SNMP ifIndex for this interface.

<sonet-errors>—No documentation is available yet.

<sonet-line-information>—No documentation is available yet.

<sonet-loopback>—SONET loopback setting on channelized OC-12 interface.

<sonet-mode>—Indicates if interface is in SDH or SONET mode.

<sonet-path-information>—No documentation is available yet.

<sonet-physical-information>—No documentation is available yet.

<sonet-rx-overhead>—No documentation is available yet.

<sonet-rx-path-trace>—Received SONET path trace.

<sonet-section-information>—No documentation is available yet.

<sonet-tx-overhead>—No documentation is available yet.

<sonet-tx-path-trace>—Transmitted SONET path trace.

<sonet-vt-information>—No documentation is available yet.

<source-filtering>—Whether source filtering is enabled or disabled.

<speed>—Speed at which the interface is running.

<statistics-cleared>—Time when statistics were last cleared.

<traffic-statistics>—Number and rate of bytes and packets received and transmitted on the physical interface.

<up-hold-time>—Up hold time for this interface, in milliseconds.

<virtual-path-information>—Operational information and statistics for a virtual path.

< *plcp-defects* >

Usage

```
<atm-information>
  <plcp-defects>
    <media-alarm>...</media-alarm>
  </plcp-defects>
</atm-information>
```

Description No documentation is available yet.

Contents <media-alarm>—No documentation is available yet.

< *plcp-statistics* >

Usage

```
<atm-information>
  <plcp-statistics>
    <ferr-count>ferr-count</ferr-count>
    <ferr-seconds>ferr-seconds</ferr-seconds>
    <bipe-count>bipe-count</bipe-count>
    <bipe-seconds>bipe-seconds</bipe-seconds>
    <febe-count>febe-count</febe-count>
    <febe-seconds>febe-seconds</febe-seconds>
  </plcp-statistics>
</atm-information>
```

Description No documentation is available yet.

Contents <bipe-count>—No documentation is available yet.

<bipe-seconds>—No documentation is available yet.

<febe-count>—No documentation is available yet.

<febe-seconds>—No documentation is available yet.

<ferr-count>—No documentation is available yet.

<ferr-seconds>—No documentation is available yet.

< *policer-information* >

Usage

```
<logical-interface | address-family>
  <policer-information>
    <policer-family>policer-family</policer-family>
    <policer-input>policer-input</policer-input>
    <policer-output>policer-output</policer-output>
  </policer-information>
</logical-interface | address-family>
```

Description Interface policer information.

Contents <policer-family>—Protocol family of the policer.

<policer-input>—Name of the input policer.

<policer-output>—Name of the output policer.

<queue>

Usage

```
<queue-counters>
  <queue>
    <queue-number>queue-number</queue-number>
    <forwarding-class-name>forwarding-class-name</forwarding-class-name>
    <queue-counters-queued-packets>queued-packets</queue-counters-queued-packets>
    <queue-counters-queued-bytes>queued-bytes</queue-counters-queued-bytes>
    <queue-counters-queued-packets-rate>rate</queue-counters-queued-packets-rate>
    <queue-counters-queued-bytes-rate>bytes-rate</queue-counters-queued-bytes-rate>
    <queue-counters-trans-packets>trans-packets</queue-counters-trans-packets>
    <queue-counters-trans-bytes>trans-bytes</queue-counters-trans-bytes>
    <queue-counters-trans-packets-rate>packets-rate</queue-counters-trans-packets-rate>
    <queue-counters-trans-bytes-rate>bytes-rate</queue-counters-trans-bytes-rate>
    <queue-counters-tail-drop-packets>drop-packets</queue-counters-tail-drop-packets>
    <queue-counters-tail-drop-packets-rate>rate</queue-counters-tail-drop-packets-rate>
    <queue-counters-red-packets>red-packets</queue-counters-red-packets>
    <queue-counters-red-bytes>queue-counters-red-bytes</queue-counters-red-bytes>
    <queue-counters-red-packets-rate>red-packets-rate</queue-counters-red-packets-rate>
    <queue-counters-red-bytes-rate>red-bytes-rate</queue-counters-red-bytes-rate>
    <queue-counters-red-packets-ln>red-packets-ln</queue-counters-red-packets-ln>
    <queue-counters-red-bytes-ln>red-bytes-ln</queue-counters-red-bytes-ln>
    <queue-counters-red-packets-rate-ln>rate-ln</queue-counters-red-packets-rate-ln>
    <queue-counters-red-bytes-rate-ln>bytes-rate-ln</queue-counters-red-bytes-rate-ln>
    <queue-counters-red-packets-lt>red-packets-lt</queue-counters-red-packets-lt>
    <queue-counters-red-bytes-lt>queue-counters-red-bytes-lt</queue-counters-red-bytes-lt>
    <queue-counters-red-packets-rate-lt>rate-lt</queue-counters-red-packets-rate-lt>
    <queue-counters-red-bytes-rate-lt>bytes-rate-lt</queue-counters-red-bytes-rate-lt>
    <queue-counters-red-packets-ht>red-packets-ht</queue-counters-red-packets-ht>
    <queue-counters-red-bytes-ht>red-bytes-ht</queue-counters-red-bytes-ht>
    <queue-counters-red-packets-rate-ht>rate-ht</queue-counters-red-packets-rate-ht>
    <queue-counters-red-bytes-rate-ht>bytes-rate-ht</queue-counters-red-bytes-rate-ht>
    <queue-counters-red-packets-hn>red-packets-hn</queue-counters-red-packets-hn>
    <queue-counters-red-bytes-hn>red-bytes-hn</queue-counters-red-bytes-hn>
    <queue-counters-red-packets-rate-hn>rate-hn</queue-counters-red-packets-rate-hn>
    <queue-counters-red-bytes-rate-hn>bytes-rate-hn</queue-counters-red-bytes-rate-hn>
  </queue>
</queue-counters>
```

Description Counters for a single queue.

Contents <forwarding-class-name>—Forwarding class name associated with queue.

<queue-counters-queued-bytes>—Queued bytes count.

<queue-counters-queued-bytes-rate>—Rate at which bytes are queued.

<queue-counters-queued-packets>—Queued packet count.

<queue-counters-queued-packets-rate>—Rate at which packets are queued.

<queue-counters-red-bytes>—Number of bytes dropped due to RED.

<queue-counters-red-bytes-hn>—Number of RED dropped high-loss, non-TCP bytes.

<queue-counters-red-bytes-ht>—Number of RED dropped high-loss, TCP bytes.

<queue-counters-red-bytes-ln>—Number of RED dropped low-loss, non-TCP bytes.

<queue-counters-red-bytes-lt>—Number of RED dropped low-loss, TCP bytes.

<queue-counters-red-bytes-rate>—Rate at which bytes are dropped due to RED.

<queue-counters-red-bytes-rate-hn>—RED drop rate for high-loss, non-TCP bytes.

<queue-counters-red-bytes-rate-ht>—RED drop rate for high-loss, TCP bytes.

<queue-counters-red-bytes-rate-ln>—RED drop rate for low-loss, not-TCP bytes.

<queue-counters-red-bytes-rate-lt>—RED drop rate for low-loss, TCP bytes.

<queue-counters-red-packets>—Number of packets dropped due to RED.

<queue-counters-red-packets-hn>—Number of RED dropped high-loss, non-TCP packets.

<queue-counters-red-packets-ht>—Number of RED dropped high-loss, TCP packets.

<queue-counters-red-packets-ln>—Number of RED dropped low-loss, non-TCP packets.

<queue-counters-red-packets-lt>—Number of RED dropped of low-loss, TCP packets.

<queue-counters-red-packets-rate>—Rate at which packets are dropped due to RED.

<queue-counters-red-packets-rate-hn>—RED drop rate for high-loss, non-TCP packets.

<queue-counters-red-packets-rate-ht>—RED drop rate for high-loss, TCP packets.

<queue-counters-red-packets-rate-ln>—RED drop rate for low-loss, non-TCP packets.

<queue-counters-red-packets-rate-lt>—RED drop rate for low-loss, TCP packets.

<queue-counters-tail-drop-packets>—Number of packets dropped at the tail of the queue.

<queue-counters-tail-drop-packets-rate>—Rate at which packets are dropped at the tail of the queue.

<queue-counters-trans-bytes>—Total number of transmitted bytes.

<queue-counters-trans-bytes-rate>—Rate at which bytes are transmitted.

<queue-counters-trans-packets>—Total number of transmitted packets.

<queue-counters-trans-packets-rate>—Rate at which packets are transmitted.

<queue-number>—Queue number.

< *queue-counters* >

Usage

```
<physical-interface>
  <queue-counters>
    <queue-counters-error-message>error-message</queue-counters-error-message>
    <queue>...</queue>
  </queue-counters>
</physical-interface>
```

Description Queue counter statistics.

Contents <queue>—Counters for a single queue.

<queue-counters-error-message>—Queue statistics not available for this interface.

< *route-rpf-statistics* >

Usage

```
<address-family>
  <route-rpf-statistics>
    <route-rpf-packets>route-rpf-packets</route-rpf-packets>
    <route-rpf-bytes>route-rpf-bytes</route-rpf-bytes>
  </route-rpf-statistics>
</address-family>
```

Description Unicast reverse-path-forwarding (RPF) statistics.

Contents <route-rpf-bytes>—Number of bytes that have failed the RPF check.

<route-rpf-packets>—Number of packets that have failed the RPF check.

< *sonet-errors* >

Usage

```
<physical-interface>
  <sonet-errors>
    <media-alarm>...</media-alarm>
  </sonet-errors>
</physical-interface>
```

Description No documentation is available yet.

Contents <media-alarm>—No documentation is available yet.

< *sonet-line-information* >

Usage

```
<physical-interface>
  <sonet-line-information>
    <media-alarm>...</media-alarm>
  </sonet-line-information>
</physical-interface>
```

Description No documentation is available yet.

Contents <media-alarm>—No documentation is available yet.

< *sonet-path-information* >

Usage

```
<physical-interface>
  <sonet-path-information>
    <media-alarm>...</media-alarm>
  </sonet-path-information>
</physical-interface>
```

Description No documentation is available yet.

Contents <media-alarm>—No documentation is available yet.

< *sonet-physical-information* >

Usage

```
<physical-interface>
  <sonet-physical-information>
    <media-alarm>...</media-alarm>
  </sonet-physical-information>
</physical-interface>
```

Description No documentation is available yet.

Contents <media-alarm>—No documentation is available yet.

< *sonet-section-information* >

Usage

```
<physical-interface>
  <sonet-section-information>
    <media-alarm>...</media-alarm>
  </sonet-section-information>
</physical-interface>
```

Description No documentation is available yet.

Contents <media-alarm>—No documentation is available yet.

< *sonet-vt-information* >

Usage

```
<physical-interface>
  <sonet-vt-information>
    <media-alarm>...</media-alarm>
  </sonet-vt-information>
</physical-interface>
```

Description No documentation is available yet.

Contents <media-alarm>—No documentation is available yet.

< *source-class-statistics* >

Usage

```
<address-family>
  <source-class-statistics>
    <scu-class-name>scu-class-name</scu-class-name>
    <scu-class-packets>scu-class-packets</scu-class-packets>
    <scu-class-bytes>scu-class-bytes</scu-class-bytes>
  </source-class-statistics>
</address-family>
```

Description Source class usage (SCU) statistics.

Contents <scu-class-bytes>—Number of bytes counted by SCU for this class.

<scu-class-name>—Name of SCU class.

<scu-class-packets>—Number of packets counted by SCU for this class.

< *traffic-statistics* >

Usage

```
<physical-interface | virtual-path-information | logical-interface | virtual-circuit-information>
  <traffic-statistics>
    <input-bytes>input-bytes</input-bytes>
    <output-bytes>output-bytes</output-bytes>
    <input-bps>input-bps</input-bps>
    <output-bps>output-bps</output-bps>
    <input-packets>input-packets</input-packets>
    <output-packets>output-packets</output-packets>
    <input-pps>input-pps</input-pps>
    <output-pps>output-pps</output-pps>
  </traffic-statistics>
</physical-interface | virtual-path-information | logical-interface | virtual-circuit-information>
```

Description Number and rate of bytes and packets received and transmitted on the physical interface.

Contents <input-bps>—No documentation is available yet.

<input-bytes>—No documentation is available yet.

<input-packets>—No documentation is available yet.

<input-pps>—No documentation is available yet.

<output-bps>—No documentation is available yet.

<output-bytes>—No documentation is available yet.

<output-packets>—No documentation is available yet.

<output-pps>—No documentation is available yet.

< *transit-traffic-statistics* >

Usage

```
<logical-interface>
  <transit-traffic-statistics>
    <input-bytes>input-bytes</input-bytes>
    <output-bytes>output-bytes</output-bytes>
    <input-bps>input-bps</input-bps>
    <output-bps>output-bps</output-bps>
    <input-packets>input-packets</input-packets>
    <output-packets>output-packets</output-packets>
    <input-pps>input-pps</input-pps>
    <output-pps>output-pps</output-pps>
  </transit-traffic-statistics>
</logical-interface>
```

Description Statistics for traffic passing through the router. When a burst of traffic is received, the value in the output packet rate field might briefly exceed the peak cell rate. The counter usually stabilizes in 1 second or less.

Contents <input-bps>—No documentation is available yet.

<input-bytes>—No documentation is available yet.

<input-packets>—No documentation is available yet.

<input-pps>—No documentation is available yet.

<output-bps>—No documentation is available yet.

<output-bytes>—No documentation is available yet.

<output-packets>—No documentation is available yet.

<output-pps>—No documentation is available yet.

< virtual-circuit-information >

Usage

```
<logical-interface>
  <virtual-circuit-information>
    <vpi>vpi</vpi>
    <vci>vci</vci>
    <dlci>dlci</dlci>
    <ifvc-flags>...</ifvc-flags>
    <ifvc-multipoint-destination>...</ifvc-multipoint-destination>
    <atm-tm-cbr/>
    <atm-tm-vbr/>
    <peak>peak</peak>
    <sustained>sustained</sustained>
    <burst>burst</burst>
    <queue-limit>queue-limit</queue-limit>
    <down-time>down-time</down-time>
    <last-down-time>last-down-time</last-down-time>
    <oam-parameters>...</oam-parameters>
    <oam-statistics>...</oam-statistics>
    <traffic-statistics>...</traffic-statistics>
    <atm-statistics>...</atm-statistics>
    <in-arp-statistics>...</in-arp-statistics>
  </virtual-circuit-information>
</logical-interface>
```

Description Operational information and statistics for a virtual circuit.

Contents <atm-statistics>—No documentation is available yet.

<atm-tm-cbr>—No documentation is available yet.

<atm-tm-vbr>—No documentation is available yet.

<burst>—No documentation is available yet.

<dlci>—No documentation is available yet.

<down-time>—Total down time for this circuit.

<ifvc-flags>—No documentation is available yet.

<ifvc-multipoint-destination>—No documentation is available yet.

<in-arp-statistics>—Container tag for ARP statistics.

<last-down-time>—Time elapsed since circuit last went down.

<oam-parameters>—No documentation is available yet.

<oam-statistics>—Container tag for OAM statistics.

<peak>—No documentation is available yet.

<queue-limit>—No documentation is available yet.

<sustained>—No documentation is available yet.

<traffic-statistics>—Number and rate of bytes and packets received and transmitted on the physical interface.

<vci>—Virtual circuit identifier.

<vpi>—Virtual path identifier.

< *virtual-path-information* >

Usage

```
<physical-interface>
  <virtual-path-information>
    <vpi>vpi</vpi>
    <ifvp-flags>...</ifvp-flags>
    <atm-tm-cbr/>
    <atm-tm-vbr/>
    <peak>peak</peak>
    <sustained>sustained</sustained>
    <burst>burst</burst>
    <queue-limit>queue-limit</queue-limit>
    <down-time>down-time</down-time>
    <last-down-time>last-down-time</last-down-time>
    <oam-parameters>...</oam-parameters>
    <oam-statistics>...</oam-statistics>
    <traffic-statistics>...</traffic-statistics>
  </virtual-path-information>
</physical-interface>
```

Description Operational information and statistics for a virtual path.

Contents <atm-tm-cbr>—No documentation is available yet.

<atm-tm-vbr>—No documentation is available yet.

<burst>—No documentation is available yet.

<down-time>—Total down time for this circuit.

<ifvp-flags>—No documentation is available yet.

<last-down-time>—Time elapsed since circuit last went down.

<oam-parameters>—No documentation is available yet.

<oam-statistics>—Container tag for OAM statistics.

<peak>—No documentation is available yet.

<queue-limit>—No documentation is available yet.

<sustained>—No documentation is available yet.

<traffic-statistics>—Number and rate of bytes and packets received and transmitted on the physical interface.

<vpi>—Virtual path identifier.

Summary of IPSec Response Tags

This section lists the tags returned by the JUNOScript server to describe information about IPSec. The associated XML namespace is http://xml.juniper.net/junos/5.5R1/junos-ipsec. To review the DTD for the tags, see "DTD for IPSec Response Tags" on page 1751.

< ike-sa-algorithms >

Usage

```
<ike-security-associations>
  <ike-sa-algorithms>
    <ike-sa-authentication-algorithm>algorithm</ike-sa-authentication-algorithm>
    <ike-sa-encryption-algorithm>ike-sa-encryption-algorithm</ike-sa-encryption-algorithm>
    <ike-sa-prf-algorithm>ike-sa-prf-algorithm</ike-sa-prf-algorithm>
  </ike-sa-algorithms>
</ike-security-associations>
```

Description Algorithms used with the SA information.

Contents <ike-sa-authentication-algorithm>—Authentication algorithm.

<ike-sa-encryption-algorithm>—Encryption algorithm.

<ike-sa-prf-algorithm>—PRF algorithm.

< ike-sa-misc >

Usage

```
<ike-security-associations>
  <ike-sa-misc>
    <ike-sa-flags>ike-sa-flags</ike-sa-flags>
    <ike-sa-num-ipsec-sas-created>ipsec-sas-created</ike-sa-num-ipsec-sas-created>
    <ike-sa-num-ipsec-sas-deleted>ipsec-sas-deleted</ike-sa-num-ipsec-sas-deleted>
    <ike-sa-num-phase2-negotiations>negotiations</ike-sa-num-phase2-negotiations>
  </ike-sa-misc>
</ike-security-associations>
```

Description Miscellaneous IKE SA information.

Contents <ike-sa-flags>—IKE SA flags.

<ike-sa-num-ipsec-sas-created>—Number of IPSec SAs created using this SA.

<ike-sa-num-ipsec-sas-deleted>—Number of IPSec SAs deleted using this SA.

<ike-sa-num-phase2-negotiations>—Number of negotiations in progress on this SA.

< *ike-sa-phase2-information* >

Usage

```
<ike-security-associations | ike-security-associations-information>
  <ike-sa-phase2-information>
    <ike-sa-phase2-type>ike-sa-phase2-type</ike-sa-phase2-type>
    <ike-sa-role>ike-sa-role</ike-sa-role>
    <ike-sa-msg-id>ike-sa-msg-id</ike-sa-msg-id>
    <ike-sa-local-address>ike-sa-local-address</ike-sa-local-address>
    <ike-sa-local-port>ike-sa-local-port</ike-sa-local-port>
    <ike-sa-remote-address>ike-sa-remote-address</ike-sa-remote-address>
    <ike-sa-remote-port>ike-sa-remote-port</ike-sa-remote-port>
    <ike-sa-local-id>ike-sa-local-id</ike-sa-local-id>
    <ike-sa-remote-id>ike-sa-remote-id</ike-sa-remote-id>
    <ike-sa-flags>ike-sa-flags</ike-sa-flags>
  </ike-sa-phase2-information>
</ike-security-associations | ike-security-associations-information>
```

Description Information about phase 2 negotiation.

Contents <ike-sa-flags>—IKE SA flags.

<ike-sa-local-address>—Local address.

<ike-sa-local-id>—Local end identity in phase 2.

<ike-sa-local-port>—Local port.

<ike-sa-msg-id>—Message ID of the Quick Mode negotiation.

<ike-sa-phase2-type>—Type of the phase 2 negotiation.

<ike-sa-remote-address>—Remote address.

<ike-sa-remote-id>—Remote end identity in phase 2.

<ike-sa-remote-port>—Remote port.

<ike-sa-role>—Role of our end.

< *ike-sa-traffic-statistics* >

Usage

```
<ike-security-associations>
  <ike-sa-traffic-statistics>
    <ike-sa-input-packets>ike-sa-input-packets</ike-sa-input-packets>
    <ike-sa-output-packets>ike-sa-output-packets</ike-sa-output-packets>
    <ike-sa-input-bytes>ike-sa-input-bytes</ike-sa-input-bytes>
    <ike-sa-output-bytes>ike-sa-output-bytes</ike-sa-output-bytes>
  </ike-sa-traffic-statistics>
</ike-security-associations>
```

Description Number of packets and bytes received and transmitted on the SA.

Contents <ike-sa-input-bytes>—Input bytes, including retransmissions.

<ike-sa-input-packets>—Input packets, including retransmissions.

<ike-sa-output-bytes>—Output bytes, including retransmissions.

<ike-sa-output-packets>—Output packets, including retransmissions.

< *ike-security-associations* >

Usage

```
<ike-security-associations-information | ike-security-associations-block>
  <ike-security-associations>
    <ike-sa-role>ike-sa-role</ike-sa-role>
    <ike-sa-state>ike-sa-state</ike-sa-state>
    <ike-sa-initiator-cookie>ike-sa-initiator-cookie</ike-sa-initiator-cookie>
    <ike-sa-responder-cookie>ike-sa-responder-cookie</ike-sa-responder-cookie>
    <ike-sa-exchange-type>ike-sa-exchange-type</ike-sa-exchange-type>
    <ike-sa-authentication-method>authentication-method</ike-sa-authentication-method>
    <ike-sa-local-address>ike-sa-local-address</ike-sa-local-address>
    <ike-sa-local-port>ike-sa-local-port</ike-sa-local-port>
    <ike-sa-remote-address>ike-sa-remote-address</ike-sa-remote-address>
    <ike-sa-remote-port>ike-sa-remote-port</ike-sa-remote-port>
    <ike-sa-lifetime>ike-sa-lifetime</ike-sa-lifetime>
    <ike-sa-algorithms>...</ike-sa-algorithms>
    <ike-sa-traffic-statistics>...</ike-sa-traffic-statistics>
    <ike-sa-misc>...</ike-sa-misc>
    <ike-sa-phase2-information>...</ike-sa-phase2-information>
  </ike-security-associations>
</ike-security-associations-information | ike-security-associations-block>
```

Description Information about a single security association.

Contents <ike-sa-algorithms>—Algorithms used with the SA information.

<ike-sa-authentication-method>—No documentation is available yet.

<ike-sa-exchange-type>—Exchange type.

<ike-sa-initiator-cookie>—IKE SA initiator cookie.

<ike-sa-lifetime>—Remaining lifetime in seconds or kilobytes before expiration.

<ike-sa-local-address>—Local address.

<ike-sa-local-port>—Local port.

<ike-sa-misc>—Miscellaneous IKE SA information.

<ike-sa-phase2-information>—Information about phase 2 negotiation.

<ike-sa-remote-address>—Remote address.

<ike-sa-remote-port>—Remote port.

<ike-sa-responder-cookie>—IKE SA responder cookie.

<ike-sa-role>—Role of our end.

<ike-sa-state>—Status of the SA.

<ike-sa-traffic-statistics>—Number of packets and bytes received and transmitted on the SA.

< *ike-security-associations-block* >

Usage

```
<ike-security-associations-information>
  <ike-security-associations-block>
    <ike-sa-remote-address>ike-sa-remote-address</ike-sa-remote-address>
    <ike-security-associations>...</ike-security-associations>
  </ike-security-associations-block>
</ike-security-associations-information>
```

Description Information about a single security association block.

Contents <ike-sa-remote-address>—Remote address.

<ike-security-associations>—Information about a single security association.

< *ike-security-associations-information* >

Usage

```
<rpc-reply>
  <ike-security-associations-information>
    <ike-security-associations>...</ike-security-associations>
    <ike-sa-phase2-information>...</ike-sa-phase2-information>
    <ike-security-associations-block>...</ike-security-associations-block>
  </ike-security-associations-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ike-sa-phase2-information>—Information about phase 2 negotiation.

<ike-security-associations>—Information about a single security association.

<ike-security-associations-block>—Information about a single security association block.

< *kmd-memory-usage* >

Usage

```
<kmd-memory-usage-information>
  <kmd-memory-usage>
    <memory-block-type>memory-block-type</memory-block-type>
    <memory-in-use>memory-in-use</memory-in-use>
  </kmd-memory-usage>
</kmd-memory-usage-information>
```

Description Information about key management daemon memory usage.

Contents <memory-block-type>—Memory block type.

<memory-in-use>—Memory in use.

< kmd-memory-usage-information >

Usage

```
<rpc-reply>
  <kmd-memory-usage-information>
    <kmd-memory-usage>...</kmd-memory-usage>
  </kmd-memory-usage-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <kmd-memory-usage>—Information about key management daemon memory usage.

< security-associations >

Usage

```
<security-associations-block | security-associations-information>
  <security-associations>
    <sa-direction>sa-direction</sa-direction>
    <sa-spi>sa-spi</sa-spi>
    <sa-aux-spi>sa-aux-spi</sa-aux-spi>
    <sa-state>sa-state</sa-state>
    <sa-mode>sa-mode</sa-mode>
    <sa-type>sa-type</sa-type>
    <sa-protocol>sa-protocol</sa-protocol>
    <sa-authentication-algorithm>algorithm</sa-authentication-algorithm>
    <sa-encryption-algorithm>sa-encryption-algorithm</sa-encryption-algorithm>
    <sa-soft-lifetime>sa-soft-lifetime</sa-soft-lifetime>
    <sa-hard-lifetime>sa-hard-lifetime</sa-hard-lifetime>
    <sa-anti-replay-service>sa-anti-replay-service</sa-anti-replay-service>
    <sa-replay-window-size>sa-replay-window-size</sa-replay-window-size>
  </security-associations>
</security-associations-block | security-associations-information>
```

Description Information about a single security association.

Contents <sa-anti-replay-service>—Anti-replay service.

<sa-authentication-algorithm>—Authentication algorithm.

<sa-aux-spi>—Auxiliary Security Parameter Index.

<sa-direction>—Direction of the security association.

<sa-encryption-algorithm>—Encryption algorithm.

<sa-hard-lifetime>—Remaining lifetime, in seconds or kilobytes, before hard lifetime expires.

<sa-mode>—Mode of the security association.

<sa-protocol>—IPSec security protocol.

<sa-replay-window-size>—Replay window size.

<sa-soft-lifetime>—Remaining lifetime, in seconds or kilobytes, before soft lifetime expires.

<sa-spi>—Security Parameter Index.

<sa-state>—Status of the SA.

<sa-type>—No documentation is available yet.

< *security-associations-block* >

Usage

```
<security-associations-information>
  <security-associations-block>
    <sa-no-information/>
    <sa-name>sa-name</sa-name>
    <sa-block-state>sa-block-state</sa-block-state>
    <security-associations>...</security-associations>
  </security-associations-block>
</security-associations-information>
```

Description Information about a single security association block.

Contents <sa-block-state>—Status of the SA configuration block.

<sa-name>—Name of the security association.

<sa-no-information>—Output string when there are no security associations present.

<security-associations>—Information about a single security association.

< *security-associations-information* >

Usage

```
<rpc-reply>
  <security-associations-information>
    <security-associations-block>...</security-associations-block>
    <security-associations>...</security-associations>
  </security-associations-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <security-associations>—Information about a single security association.

<security-associations-block>—Information about a single security association block.

Summary of IPv6 Neighbor Discovery Response Tags

This section lists the tags returned by the JUNOScript server to describe information about Internet Protocol Version 6 (IPv6) neighbor discovery. The associated XML namespace is http://xml.juniper.net/junos/5.5R1/junos-ipv6-nd. To review the DTD for the tags, see "DTD for IPv6 Neighbor Discovery Response Tags" on page 1755.

< *ipv6-modify-nd* >

Usage

```
<rpc-reply>
  <ipv6-modify-nd>
    <ipv6-modify-nd-entry>...</ipv6-modify-nd-entry>
  </ipv6-modify-nd>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ipv6-modify-nd-entry>—No documentation is available yet.

< *ipv6-modify-nd-entry* >

Usage

```
<ipv6-modify-nd>
  <ipv6-modify-nd-entry>
    <ipv6-nd-neighbor-address>ipv6-nd-neighbor-address</ipv6-nd-neighbor-address>
    <ipv6-nd-neighbor-l2-address>neighbor-l2-address</ipv6-nd-neighbor-l2-address>
    <ipv6-nd-change>ipv6-nd-change</ipv6-nd-change>
  </ipv6-modify-nd-entry>
</ipv6-modify-nd>
```

Description No documentation is available yet.

Contents <ipv6-nd-change>—

<ipv6-nd-neighbor-address>—The address of the neighbor.

<ipv6-nd-neighbor-l2-address>—The Layer 2 address of the neighbor.

< *ipv6-nd-entry* >

Usage

```
<ipv6-nd-information>
  <ipv6-nd-entry>
    <ipv6-nd-neighbor-address>ipv6-nd-neighbor-address</ipv6-nd-neighbor-address>
    <ipv6-nd-neighbor-l2-address>neighbor-l2-address</ipv6-nd-neighbor-l2-address>
    <ipv6-nd-state>ipv6-nd-state</ipv6-nd-state>
    <ipv6-nd-expire>ipv6-nd-expire</ipv6-nd-expire>
    <ipv6-nd-isrouter>ipv6-nd-isrouter</ipv6-nd-isrouter>
    <ipv6-nd-interface-name>ipv6-nd-interface-name</ipv6-nd-interface-name>
  </ipv6-nd-entry>
</ipv6-nd-information>
```

Description No documentation is available yet.

Contents <ipv6-nd-expire>—No documentation is available yet.

<ipv6-nd-interface-name>—The name of the interface.

<ipv6-nd-isrouter>—No documentation is available yet.

<ipv6-nd-neighbor-address>—The address of the neighbor.

<ipv6-nd-neighbor-l2-address>—The Layer 2 address of the neighbor.

<ipv6-nd-state>—No documentation is available yet.

< *ipv6-nd-information* >

Usage

```
<rpc-reply>
  <ipv6-nd-information>
    <ipv6-nd-entry>...</ipv6-nd-entry>
  </ipv6-nd-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ipv6-nd-entry>—No documentation is available yet.

Summary of J20 GGSN Response Tags

This section lists the tags returned by the JUNOScript server to describe J20 gateway GPRS support node (GGSN) information. The associated XML namespace is http://xml.juniper.net/junos/5.5R1/junos-ggsn. To review the DTD for the tags, see "DTD for J20 GGSN Response Tags" on page 1757.

< *apn-pdp-context-deletion-results* >

Usage

```
<rpc-reply>
  <apn-pdp-context-deletion-results>
    <apn-name>apn-name</apn-name>
    <interface-pdp-context-deletion-information>...
                                  </interface-pdp-context-deletion-information>
  </apn-pdp-context-deletion-results>
</rpc-reply>
```

Description Results for an APN-wide PDP context deletion command.

Contents <apn-name>—APN for this context.

<interface-pdp-context-deletion-information>—Information about PDP context deletion on a per-interface basis.

< *apn-statistics* >

Usage

```
<apn-statistics-information>
  <apn-statistics>
    <name>name</name>
    <pdp-context-statistics>...</pdp-context-statistics>
    <gtp-error-statistics>...</gtp-error-statistics>
    <uplink>...</uplink>
    <downlink>...</downlink>
  </apn-statistics>
</apn-statistics-information>
```

Description Statistics for a single APN.

Contents <downlink>—Link traffic in the downlink direction.

<gtp-error-statistics>—GTP error statistics.

<name>—No documentation is available yet.

<pdp-context-statistics>—Information about PDP context events.

<uplink>—Link traffic in the uplink direction.

< *apn-statistics-information* >

Usage

```
<rpc-reply>
  <apn-statistics-information>
    <apn-statistics>...</apn-statistics>
  </apn-statistics-information>
</rpc-reply>
```

Description APN statistics for the GGSN.

Contents <apn-statistics>—Statistics for a single APN.

< *billing-gateway* >

Usage

```
<gtp-prime-statistics-information>
  <billing-gateway>
    <address>address</address>
    <time-connected>time-connected</time-connected>
  </billing-gateway>
</gtp-prime-statistics-information>
```

Description Active billing gateway information.

Contents <address>—No documentation is available yet.

<time-connected>—Time at which a connection was made to a server.

< *call-trace* >

Usage

```
<call-trace-information>
  <call-trace>
    <imsi>imsi</imsi>
    <msisdn>msisdn</msisdn>
    <time-started>time-started</time-started>
    <nsapi-information>...</nsapi-information>
  </call-trace>
</call-trace-information>
```

Description Information about a GGSN node call trace.

Contents <imsi>—International Mobile Subscriber Identity (IMSI) for user.

<msisdn>—Mobile Station ISDN number (MSISDN) for user.

<nsapi-information>—List of NSAPIs associated with user.

<time-started>—Time at which the service started.

< *call-trace-information* >

Usage

```
<rpc-reply>
  <call-trace-information>
    <number-enabled>number-enabled</number-enabled>
    <number-active>number-active</number-active>
    <call-trace>...</call-trace>
  </call-trace-information>
</rpc-reply>
```

Description Information about call traces enabled for the GGSN node.

Contents <call-trace>—Information about a GGSN node call trace.

<number-active>—Number of call traces that are active.

<number-enabled>—Number of call traces that are set up.

< *data-record-transfer-statistics* >

Usage

```
<gtp-prime-statistics>
  <data-record-transfer-statistics>
    <request-transmitted>request-transmitted</request-transmitted>
    <response-received>response-received</response-received>
  </data-record-transfer-statistics>
</gtp-prime-statistics>
```

Description GTP Prime data record transfer statistics.

Contents <request-transmitted>—Requests sent.

<response-received>—Responses received.

< *downlink* >

Usage

```
<ggsn-statistics | apn-statistics | sgsn-statistics>
  <downlink>
    <packets>packets</packets>
    <bytes>bytes</bytes>
    <dropped-packets>dropped-packets</dropped-packets>
  </downlink>
</ggsn-statistics | apn-statistics | sgsn-statistics>
```

Description Link traffic in the downlink direction.

Contents <bytes>—Count of bytes.

<dropped-packets>—Count of packet drops.

<packets>—Count of packets.

< *echo-request-statistics* >

Usage

```
<gtp-statistics | gtp-prime-statistics>
  <echo-request-statistics>
    <request-received>request-received</request-received>
    <request-transmitted>request-transmitted</request-transmitted>
    <response-received>response-received</response-received>
    <response-transmitted>response-transmitted</response-transmitted>
  </echo-request-statistics>
</gtp-statistics | gtp-prime-statistics>
```

Description Echo request information.

Contents <request-received>—Requests received.

<request-transmitted>—Requests sent.

<response-received>—Responses received.

<response-transmitted>—Responses sent.

< *ggsn-interface* >

Usage

```
<ggsn-interface-information>
  <ggsn-interface>
    <service-interface>service-interface</service-interface>
    <external-address>external-address</external-address>
    <internal-address>internal-address</internal-address>
    <operating-function>operating-function</operating-function>
    <hardware-version>hardware-version</hardware-version>
    <software-version>software-version</software-version>
    <pdp>...</pdp>
    <time-started>time-started</time-started>
  </ggsn-interface>
</ggsn-interface-information>
```

Description Information about GGSN-C and GGSN-U service interfaces.

Contents <external-address>—External address for the PIC.

<hardware-version>—PIC hardware version.

<internal-address>—Internal address for the PIC.

<operating-function>—Current cluster function for the PIC.

<pdp>—PDP context information.

<service-interface>—The service interface for the information.

<software-version>—GGSN service software version.

<time-started>—Time at which the service started.

< *ggsn-interface-information* >

Usage

```
<rpc-reply>
  <ggsn-interface-information>
    <ggsn-interface>...</ggsn-interface>
  </ggsn-interface-information>
</rpc-reply>
```

Description GGSN PIC information.

Contents <ggsn-interface>—Information about GGSN-C and GGSN-U service interfaces.

< *ggsn-statistics* >

Usage

```
<rpc-reply>
  <ggsn-statistics>
    <time-started>time-started</time-started>
    <time-sampled>time-sampled</time-sampled>
    <pdp-context-statistics>...</pdp-context-statistics>
    <interface-pdp-context-statistics-information>...
                                    </interface-pdp-context-statistics-information>
    <uplink>...</uplink>
    <downlink>...</downlink>
  </ggsn-statistics>
</rpc-reply>
```

Description Global statistics for the GGSN node.

Contents <downlink>—Link traffic in the downlink direction.

<interface-pdp-context-statistics-information>—No documentation is available yet.

<pdp-context-statistics>—Information about PDP context events.

<time-sampled>—Time at which GGSN statistics were updated.

<time-started>—Time at which the service started.

<uplink>—Link traffic in the uplink direction.

< *gtp-error-statistics* >

Usage

```
<gtp-statistics | apn-statistics | sgsn-statistics>
  <gtp-error-statistics>
    <request-accepted>request-accepted</request-accepted>
    <error-indication-received>error-indication-received</error-indication-received>
    <error-indication-transmitted>indication-transmitted</error-indication-transmitted>
    <error-version-unsupported>error-version-unsupported</error-version-unsupported>
    <error-invalid-request-format>error-invalid-request-format</error-invalid-request-format>
    <error-no-resources>error-no-resources</error-no-resources>
    <error-no-dynamic-address-available>no-address</error-no-dynamic-address-available>
    <error-no-memory>error-no-memory</error-no-memory>
    <error-unknown-apn>error-unknown-apn</error-unknown-apn>
    <error-unknown-pdp-address-or-type>unknown</error-unknown-pdp-address-or-type>
    <error-authentication-failed>error-authentication-failed</error-authentication-failed>
    <error-system-failure>error-system-failure</error-system-failure>
    <error-tft-error-semantic>error-tft-error-semantic</error-tft-error-semantic>
    <error-tft-error-syntax>error-tft-error-syntax</error-tft-error-syntax>
    <error-packet-filter-semantic>error-packet-filter-semantic</error-packet-filter-semantic>
    <error-packet-filter-syntax>error-packet-filter-syntax</error-packet-filter-syntax>
    <error-mandatory-ie-missing>error-mandatory-ie-missing</error-mandatory-ie-missing>
    <error-mandatory-ie-invalid>error-mandatory-ie-invalid</error-mandatory-ie-invalid>
    <error-optional-ie-invalid>error-optional-ie-invalid</error-optional-ie-invalid>
    <error-reference-invalid>error-reference-invalid</error-reference-invalid>
    <error-service-unsupported>error-service-unsupported</error-service-unsupported>
  </gtp-error-statistics>
</gtp-statistics | apn-statistics | sgsn-statistics>
```

Description GTP error statistics.

Contents

<error-authentication-failed>—Failed with error: authentication failed.

<error-indication-received>—Error indications received.

<error-indication-transmitted>—Error indications sent.

<error-invalid-request-format>—Failed with error: invalid request format.

<error-mandatory-ie-invalid>—Failed with error: mandatory information element invalid.

<error-mandatory-ie-missing>—Failed with error: mandatory information element missing.

<error-no-dynamic-address-available>—Failed with error: no dynamic address available.

<error-no-memory>—Failed with error: no memory.

<error-no-resources>—Failed with error: no resources.

<error-optional-ie-invalid>—Failed with error: optional information element invalid.

<error-packet-filter-semantic>—Failed with error: packet filtering semantic error.

<error-packet-filter-syntax>—Failed with error: packet filtering syntax error.

<error-reference-invalid>—Failed with error: invalid reference.

<error-service-unsupported>—Failed with error: service unsupported.

<error-system-failure>—Failed with error: system failure.

<error-tft-error-semantic>—Failed with error: TFT semantic error.

<error-tft-error-syntax>—Failed with error: TFT syntax error.

<error-unknown-apn>—Failed with error: unknown APN.

<error-unknown-pdp-address-or-type>—Failed with error: unknown PDP address or type.

<error-version-unsupported>—Failed with error: version unsupported.

<request-accepted>—Requests that were accepted.

< *gtp-prime-error-statistics* >

Usage

```
<gtp-prime-statistics>
  <gtp-prime-error-statistics>
    <error-mandatory-ie-missing>error-mandatory-ie-missing</error-mandatory-ie-missing>
    <error-mandatory-ie-invalid>error-mandatory-ie-invalid</error-mandatory-ie-invalid>
    <error-optional-ie-invalid>error-optional-ie-invalid</error-optional-ie-invalid>
    <error-reference-invalid>error-reference-invalid</error-reference-invalid>
  </gtp-prime-error-statistics>
</gtp-prime-statistics>
```

Description GTP Prime error statistics.

Contents <error-mandatory-ie-invalid>—Failed with error: mandatory information element invalid.

<error-mandatory-ie-missing>—Failed with error: mandatory information element missing.

<error-optional-ie-invalid>—Failed with error: optional information element invalid.

<error-reference-invalid>—Failed with error: invalid reference.

< *gtp-prime-statistics* >

Usage

```
<gtp-prime-statistics-information>
  <gtp-prime-statistics>
    <service-interface>service-interface</service-interface>
    <echo-request-statistics>...</echo-request-statistics>
    <version-unsupported-statistics>...</version-unsupported-statistics>
    <node-alive-request-statistics>...</node-alive-request-statistics>
    <redirection-request-statistics>...</redirection-request-statistics>
    <data-record-transfer-statistics>...</data-record-transfer-statistics>
    <gtp-prime-error-statistics>...</gtp-prime-error-statistics>
  </gtp-prime-statistics>
</gtp-prime-statistics-information>
```

Description GTP Prime statistics information.

Contents <data-record-transfer-statistics>—GTP Prime data record transfer statistics.

<echo-request-statistics>—Echo request information.

<gtp-prime-error-statistics>—GTP Prime error statistics.

<node-alive-request-statistics>—GTP Prime node alive request statistics.

<redirection-request-statistics>—GTP Prime redirection request statistics.

<service-interface>—The service interface for the information.

<version-unsupported-statistics>—Version unsupported message information.

< *gtp-prime-statistics-information* >

Usage

```
<rpc-reply>
  <gtp-prime-statistics-information>
    <billing-gateway>...</billing-gateway>
    <gtp-prime-statistics>...</gtp-prime-statistics>
  </gtp-prime-statistics-information>
</rpc-reply>
```

Description GTP Prime statistics information.

Contents <billing-gateway>—Active billing gateway information.

<gtp-prime-statistics>—GTP Prime statistics information.

< *gtp-statistics* >

Usage

```
<gtp-statistics-information>
  <gtp-statistics>
    <service-interface>service-interface</service-interface>
    <uplink-packets>uplink-packets</uplink-packets>
    <uplink-bytes>uplink-bytes</uplink-bytes>
    <downlink-packets>downlink-packets</downlink-packets>
    <downlink-bytes>downlink-bytes</downlink-bytes>
    <dropped-packets>dropped-packets</dropped-packets>
    <echo-request-statistics>...</echo-request-statistics>
    <version-unsupported-statistics>...</version-unsupported-statistics>
    <pdp-request-statistics>...</pdp-request-statistics>
    <gtp-error-statistics>...</gtp-error-statistics>
  </gtp-statistics>
</gtp-statistics-information>
```

Description GTP statistics information.

Contents <downlink-bytes>—Bytes in the downlink direction.

<downlink-packets>—Packets in the downlink direction.

<dropped-packets>—Count of packet drops.

<echo-request-statistics>—Echo request information.

<gtp-error-statistics>—GTP error statistics.

<pdp-request-statistics>—PDP context request statistics.

<service-interface>—The service interface for the information.

<uplink-bytes>—Bytes in the uplink direction.

<uplink-packets>—Packets in the uplink direction.

<version-unsupported-statistics>—Version unsupported message information.

< gtp-statistics-information >

Usage

```
<rpc-reply>
  <gtp-statistics-information>
    <gtp-statistics>...</gtp-statistics>
  </gtp-statistics-information>
</rpc-reply>
```

Description GTP statistics information.

Contents <gtp-statistics>—GTP statistics information.

< interface-action-results >

Usage

```
<rpc-reply>
  <interface-action-results>
    <interface-action>interface-action</interface-action>
    <service-interface>service-interface</service-interface>
    <daemon-name>daemon-name</daemon-name>
  </interface-action-results>
</rpc-reply>
```

Description Results of an interface action.

Contents <daemon-name>—Daemon being restarted.

<interface-action>—Actions performed on service interfaces.

<service-interface>—The service interface for the information.

< interface-pdp-context-deletion >

Usage

```
<interface-pdp-context-deletion-information>
  <interface-pdp-context-deletion>
    <pdp-deleted>pdp-deleted</pdp-deleted>
    <service-interface>service-interface</service-interface>
  </interface-pdp-context-deletion>
</interface-pdp-context-deletion-information>
```

Description No documentation is available yet.

Contents <pdp-deleted>—Total number of PDP contexts deleted.

<service-interface>—The service interface for the information.

< *interface-pdp-context-deletion-information* >

Usage

```
<apn-pdp-context-deletion-results>
  <interface-pdp-context-deletion-information>
    <interface-pdp-context-deletion>...</interface-pdp-context-deletion>
  </interface-pdp-context-deletion-information>
</apn-pdp-context-deletion-results>
```

Description Information about PDP context deletion on a per-interface basis.

Contents <interface-pdp-context-deletion>—No documentation is available yet.

< *interface-pdp-context-statistics* >

Usage

```
<interface-pdp-context-statistics-information>
  <interface-pdp-context-statistics>
    <service-interface>service-interface</service-interface>
    <pdp-context-statistics>...</pdp-context-statistics>
  </interface-pdp-context-statistics>
</interface-pdp-context-statistics-information>
```

Description Interface-level PDP context statistics.

Contents <pdp-context-statistics>—Information about PDP context events.

<service-interface>—The service interface for the information.

< *interface-pdp-context-statistics-information* >

Usage

```
<ggsn-statistics>
  <interface-pdp-context-statistics-information>
    <interface-pdp-context-statistics>...</interface-pdp-context-statistics>
  </interface-pdp-context-statistics-information>
</ggsn-statistics>
```

Description No documentation is available yet.

Contents <interface-pdp-context-statistics>—Interface-level PDP context statistics.

< *mobile-user* >

Usage

```
<mobile-user-information | pdp-context-deletion-results>
  <mobile-user>
    <imsi>imsi</imsi>
    <msisdn>msisdn</msisdn>
    <pdp-context-information>...</pdp-context-information>
  </mobile-user>
</mobile-user-information | pdp-context-deletion-results>
```

Description Information about a mobile user.

Contents <imsi>—International Mobile Subscriber Identity (IMSI) for user.

<msisdn>—Mobile Station ISDN number (MSISDN) for user.

<pdp-context-information>—List of PDP contexts associated with the user.

< *mobile-user-information* >

Usage

```
<rpc-reply>
  <mobile-user-information>
    <mobile-user>...</mobile-user>
  </mobile-user-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <mobile-user>—Information about a mobile user.

< *node-action-results* >

Usage

```
<rpc-reply>
  <node-action-results>
    <node-action>node-action</node-action>
  </node-action-results>
</rpc-reply>
```

Description Results of a GGSN node action command.

Contents <node-action>—Actions performed on the GGSN node.

< *node-alive-request-statistics* >

Usage

```
<gtp-prime-statistics>
  <node-alive-request-statistics>
    <request-received>request-received</request-received>
    <request-transmitted>request-transmitted</request-transmitted>
    <response-received>response-received</response-received>
    <response-transmitted>response-transmitted</response-transmitted>
  </node-alive-request-statistics>
</gtp-prime-statistics>
```

Description GTP Prime node alive request statistics.

Contents <request-received>—Requests received.

<request-transmitted>—Requests sent.

<response-received>—Responses received.

<response-transmitted>—Responses sent.

< *nsapi-information* >

Usage

```
<call-trace>
  <nsapi-information>
    <nsapi>nsapi</nsapi>
  </nsapi-information>
</call-trace>
```

Description List of NSAPIs associated with user.

Contents <nsapi>—Network Service Access Point Identifier (NSAPI) for user.

< *packet-filter* >

Usage

```
<packet-filter-information>
  <packet-filter>
    <evaluation-precedence>evaluation-precedence</evaluation-precedence>
    <source-address>source-address</source-address>
    <source-mask>source-mask</source-mask>
    <source-port-range>source-port-range</source-port-range>
    <destination-port-range>destination-port-range</destination-port-range>
    <diffserv-code-point>diffserv-code-point</diffserv-code-point>
    <flow-label>flow-label</flow-label>
    <spi>spi</spi>
    <protocol>protocol</protocol>
  </packet-filter>
</packet-filter-information>
```

Description No documentation is available yet.

Contents <destination-port-range>—Destination port range.

<diffserv-code-point>—No documentation is available yet.

<evaluation-precedence>—Evaluation precedence for PDP context packets.

<flow-label>—No documentation is available yet.

<protocol>—Protocol for this filter.

<source-address>—No documentation is available yet.

<source-mask>—No documentation is available yet.

<source-port-range>—Source port range.

<spi>—IPSec security parameters index.

< *packet-filter-information* >

Usage

```
<traffic-flow-template>
  <packet-filter-information>
    <packet-filter>...</packet-filter>
  </packet-filter-information>
</traffic-flow-template>
```

Description Filters for this TFT.

Contents <packet-filter>—No documentation is available yet.

< *pdp* >

Usage

```
<ggsn-interface>
  <pdp>
    <pdp-state>pdp-state</pdp-state>
    <pdp-assigned>pdp-assigned</pdp-assigned>
    <pdp-capacity>pdp-capacity</pdp-capacity>
  </pdp>
</ggsn-interface>
```

Description PDP context information.

Contents <pdp-assigned>—PDP contexts assigned to a PIC.

<pdp-capacity>—Maximum number of active PDP contexts a PIC may service.

<pdp-state>—PDP service state for the PIC.

< *pdp-context* >

Usage

```
<pdp-context-information>
  <pdp-context>
    <nsapi>nsapi</nsapi>
    <apn-name>apn-name</apn-name>
    <sgsn-address>sgsn-address</sgsn-address>
    <address>address</address>
    <charging-identifier>charging-identifier</charging-identifier>
    <quality-of-service>...</quality-of-service>
    <traffic-flow-template-information>...</traffic-flow-template-information>
  </pdp-context>
</pdp-context-information>
```

Description Information relating to an MT/MS PDP context.

Contents <address>—No documentation is available yet.

<apn-name>—APN for this context.

<charging-identifier>—Charging identifier associated with the user.

<nsapi>—Network Service Access Point Identifier (NSAPI) for user.

<quality-of-service>—PDP context quality-of-service information.

<sgsn-address>—SGSN for this context.

<traffic-flow-template-information>—Traffic flow templates.

< pdp-context-deletion-results >

Usage

```
<rpc-reply>
  <pdp-context-deletion-results>
    <mobile-user>...</mobile-user>
  </pdp-context-deletion-results>
</rpc-reply>
```

Description Results for a singleton PDP context deletion command.

Contents <mobile-user>—Information about a mobile user.

< pdp-context-information >

Usage

```
<mobile-user>
  <pdp-context-information>
    <pdp-context>...</pdp-context>
  </pdp-context-information>
</mobile-user>
```

Description List of PDP contexts associated with the user.

Contents <pdp-context>—Information relating to an MT/MS PDP context.

< *pdp-context-statistics* >

Usage

```
<ggsn-statistics | interface-pdp-context-statistics | apn-statistics | sgsn-statistics>
  <pdp-context-statistics>
    <pdp-active>pdp-active</pdp-active>
    <pdp-attempted-activation>pdp-attempted-activation</pdp-attempted-activation>
    <pdp-completed-activation>pdp-completed-activation</pdp-completed-activation>
    <pdp-attempted-activation-dynamic>attempted</pdp-attempted-activation-dynamic>
    <pdp-completed-activation-dynamic>completed-</pdp-completed-activation-dynamic>
    <pdp-attempted-mobile-activation>attempted</pdp-attempted-mobile-activation>
    <pdp-completed-mobile-activation>completed</pdp-completed-mobile-activation>
    <pdp-attempted-deactivation>attempted-deactivation</pdp-attempted-deactivation>
    <pdp-completed-deactivation>completed-deactivation</pdp-completed-deactivation>
    <pdp-attempted-node-deactivation>attempted</pdp-attempted-node-deactivation>
    <pdp-completed-node-deactivation>completed</pdp-completed-node-deactivation>
    <pdp-attempted-mobile-deactivation>attempted</pdp-attempted-mobile-deactivation>
    <pdp-completed-mobile-deactivation>completed</pdp-completed-mobile-deactivation>
    <pdp-created>pdp-created</pdp-created>
    <pdp-create-failed>pdp-create-failed</pdp-create-failed>
    <pdp-last-create>pdp-last-create</pdp-last-create>
    <pdp-updates>pdp-updates</pdp-updates>
    <pdp-update-failed>pdp-update-failed</pdp-update-failed>
    <pdp-deleted>pdp-deleted</pdp-deleted>
    <pdp-deleted-by-time-deactivation>deactivation</pdp-deleted-by-time-deactivation>
    <pdp-deleted-by-command>pdp-deleted-by-command</pdp-deleted-by-command>
    <pdp-deleted-by-failure>pdp-deleted-by-failure</pdp-deleted-by-failure>
    <pdp-delete-failed>pdp-delete-failed</pdp-delete-failed>
    <pdp-last-delete>pdp-last-delete</pdp-last-delete>
    <pdp-successful-deactivations>deactivations</pdp-successful-deactivations>
    <pdp-failed-deactivations>pdp-failed-deactivations</pdp-failed-deactivations>
    <pdp-maximum>pdp-maximum</pdp-maximum>
    <pdp-mean>pdp-mean</pdp-mean>
  </pdp-context-statistics>
</ggsn-statistics | interface-pdp-context-statistics | apn-statistics | sgsn-statistics>
```

Description Information about PDP context events.

Contents <pdp-active>—Number of active PDP contexts.

<pdp-attempted-activation>—Number of attempted PDP activations.

<pdp-attempted-activation-dynamic>—Number of attempted PDP activations with dynamic address.

<pdp-attempted-deactivation>—Number of attempted PDP context deactivations.

<pdp-attempted-mobile-activation>—Number of mobile-station-initiated PDP context activations attempted.

<pdp-attempted-mobile-deactivation>—Number of mobile-station-initiated PDP context deactivations attempted.

<pdp-attempted-node-deactivation>—Number of GGSN-initiated PDP context deactivations attempted.

<pdp-completed-activation>—Number of successfully completed PDP activations.

<pdp-completed-activation-dynamic>—Number of completed PDP activations with dynamic address.

<pdp-completed-deactivation>—Number of completed PDP context deactivations.

<pdp-completed-mobile-activation>—Number of mobile-station-initiated PDP context activations completed.

<pdp-completed-mobile-deactivation>—Number of mobile-station-initiated PDP context deactivations completed.

<pdp-completed-node-deactivation>—Number of GGSN-initiated PDP context deactivations completed.

<pdp-create-failed>—Total number of PDP context creation failures.

<pdp-created>—Total number of PDP contexts successfully created.

<pdp-delete-failed>—Total number of failed requests for deletion of a PDP context.

<pdp-deleted>—Total number of PDP contexts deleted.

<pdp-deleted-by-command>—PDP delete requests initiated by a node administrator.

<pdp-deleted-by-failure>—PDP deletions due to system or path failure.

<pdp-deleted-by-time-deactivation>—PDP delete requests initiated by the time deactivation function.

<pdp-failed-deactivations>—Count of failed PDP context deactivations.

<pdp-last-create>—Time when the last PDP context was created.

<pdp-last-delete>—Time when the last PDP context was deleted.

<pdp-maximum>—Maximum PDP contexts for measured period.

<pdp-mean>—Average number of PDP contexts for measured period.

<pdp-successful-deactivations>—Count of successfully deactivated PDP contexts.

<pdp-update-failed>—Total number of failed PDP context updates.

<pdp-updates>—Total number of successful PDP context updates.

< *pdp-request-statistics* >

Usage

```
<gtp-statistics>
  <pdp-request-statistics>
    <create-request-received>create-request-received</create-request-received>
    <create-response-transmitted>response-transmitted</create-response-transmitted>
    <update-request-received>update-request-received</update-request-received>
    <update-request-transmitted>request-transmitted</update-request-transmitted>
    <update-response-received>update-response-received</update-response-received>
    <update-response-transmitted>response-transmitted</update-response-transmitted>
    <delete-request-received>delete-request-received</delete-request-received>
    <delete-request-transmitted>delete-request-transmitted</delete-request-transmitted>
    <delete-response-received>delete-response-received</delete-response-received>
    <delete-response-transmitted>response-transmitted</delete-response-transmitted>
  </pdp-request-statistics>
</gtp-statistics>
```

Description PDP context request statistics.

Contents <create-request-received>—GTP PDP create requests received.

<create-response-transmitted>—GTP PDP create responses sent.

<delete-request-received>—GTP PDP delete requests received.

<delete-request-transmitted>—GTP PDP delete requests sent.

<delete-response-received>—GTP PDP delete responses received.

<delete-response-transmitted>—GTP PDP delete responses sent.

<update-request-received>—GTP PDP update requests received.

<update-request-transmitted>—GTP PDP update requests sent.

<update-response-received>—GTP PDP update responses received.

<update-response-transmitted>—GTP PDP update responses sent.

< *quality-of-service* >

Usage

```
<pdp-context>
  <quality-of-service>
    <gi-diffserv-code-point>gi-diffserv-code-point</gi-diffserv-code-point>
    <gn-diffserv-code-point>gn-diffserv-code-point</gn-diffserv-code-point>
    <downlink-bitrate>downlink-bitrate</downlink-bitrate>
  </quality-of-service>
</pdp-context>
```

Description PDP context quality-of-service information.

Contents <downlink-bitrate>—Downlink bit rate.

<gi-diffserv-code-point>—Gi DiffServ class.

<gn-diffserv-code-point>—Gn DiffServ class.

< redirection-request-statistics >

Usage

```
<gtp-prime-statistics>
  <redirection-request-statistics>
    <request-received>request-received</request-received>
    <request-transmitted>request-transmitted</request-transmitted>
    <response-received>response-received</response-received>
    <response-transmitted>response-transmitted</response-transmitted>
  </redirection-request-statistics>
</gtp-prime-statistics>
```

Description GTP Prime redirection request statistics.

Contents <request-received>—Requests received.

<request-transmitted>—Requests sent.

<response-received>—Responses received.

<response-transmitted>—Responses sent.

< sgsn-statistics >

Usage

```
<sgsn-statistics-information>
  <sgsn-statistics>
    <address>address</address>
    <pdp-context-statistics>...</pdp-context-statistics>
    <uplink>...</uplink>
    <downlink>...</downlink>
    <gtp-error-statistics>...</gtp-error-statistics>
  </sgsn-statistics>
</sgsn-statistics-information>
```

Description Statistics information for an SGSN.

Contents <address>—No documentation is available yet.

<downlink>—Link traffic in the downlink direction.

<gtp-error-statistics>—GTP error statistics.

<pdp-context-statistics>—Information about PDP context events.

<uplink>—Link traffic in the uplink direction.

< *sgsn-statistics-information* >

Usage

```
<rpc-reply>
  <sgsn-statistics-information>
    <sgsn-statistics>...</sgsn-statistics>
  </sgsn-statistics-information>
</rpc-reply>
```

Description SGSN-level statistics for the GGSN service.

Contents <sgsn-statistics>—Statistics information for an SGSN.

< *traffic-flow-template* >

Usage

```
<traffic-flow-template-information>
  <traffic-flow-template>
    <packet-filter-information>...</packet-filter-information>
  </traffic-flow-template>
</traffic-flow-template-information>
```

Description Traffic flow template information.

Contents <packet-filter-information>—Filters for this TFT.

< *traffic-flow-template-information* >

Usage

```
<pdp-context>
  <traffic-flow-template-information>
    <traffic-flow-template>...</traffic-flow-template>
  </traffic-flow-template-information>
</pdp-context>
```

Description Traffic flow templates.

Contents <traffic-flow-template>—Traffic flow template information.

< *uplink* >

Usage

```
<ggsn-statistics | apn-statistics | sgsn-statistics>
  <uplink>
    <packets>packets</packets>
    <bytes>bytes</bytes>
    <dropped-packets>dropped-packets</dropped-packets>
  </uplink>
</ggsn-statistics | apn-statistics | sgsn-statistics>
```

Description Link traffic in the uplink direction.

Contents <bytes>—Count of bytes.

<dropped-packets>—Count of packet drops.

<packets>—Count of packets.

< *version-unsupported-statistics* >

Usage

```
<gtp-statistics | gtp-prime-statistics>
  <version-unsupported-statistics>
    <version-unsupported-received>unsupported-received</version-unsupported-received>
    <version-unsupported-transmitted>transmitted</version-unsupported-transmitted>
  </version-unsupported-statistics>
</gtp-statistics | gtp-prime-statistics>
```

Description Version unsupported message information.

Contents <version-unsupported-received>—Unsupported version messages received.

<version-unsupported-transmitted>—Unsupported version messages sent.

Summary of Passive Monitoring Response Tags

This section lists the tags returned by the JUNOScript server to describe passive monitoring interfaces. The associated XML namespace is http://xml.juniper.net/junos/5.5R1/junos-passive-monitoring. To review the DTD for the tags, see "DTD for Passive Monitoring Response Tags" on page 1763.

< *error-information* >

Usage

```
<passive-monitoring-information>
  <error-information>
    <error-packets-dropped-no-memory>no-memory</error-packets-dropped-no-memory>
    <error-packets-dropped-not-ip>not-ip</error-packets-dropped-not-ip>
    <error-packets-dropped-not-ipv4>not-ipv4</error-packets-dropped-not-ipv4>
    <error-packets-too-small>error-packets-too-small</error-packets-too-small>
    <error-allocation-failures>error-allocation-failures</error-allocation-failures>
    <error-free-failures>error-free-failures</error-free-failures>
    <error-free-list-failures>error-free-list-failures</error-free-list-failures>
    <error-memory-overload>error-memory-overload</error-memory-overload>
    <error-packets-per-second-overload>overload</error-packets-per-second-overload>
    <error-bytes-per-second-overload>overload</error-bytes-per-second-overload>
  </error-information>
</passive-monitoring-information>
```

Description Passive monitoring error information.

Contents <error-allocation-failures>—Number of failed attempts to allocate memory.

<error-bytes-per-second-overload>—Whether the number of incoming bytes exceeds the designed per-second limit.

<error-free-failures>—Number of failed attempts to free memory.

<error-free-list-failures>—Number of operations that failed because free list memory is exhausted.

<error-memory-overload>—Whether memory is exhausted.

<error-packets-dropped-no-memory>—Number of packets dropped because memory is exhausted.

<error-packets-dropped-not-ip>—Number of packets dropped because they are not IP.

<error-packets-dropped-not-ipv4>—Number of packets dropped because they are not IPv4.

<error-packets-per-second-overload>—Whether the number of incoming packets exceeds the designed per-second limit.

<error-packets-too-small>—Number of packets dropped because their header is too small.

< *flow-information* >

Usage

```
<passive-monitoring-information>
  <flow-information>
    <flow-packets>flow-packets</flow-packets>
    <flow-bytes>flow-bytes</flow-bytes>
    <flow-packets-ten-second-rate>ten-second-rate</flow-packets-ten-second-rate>
    <flow-bytes-ten-second-rate>flow-bytes-ten-second-rate</flow-bytes-ten-second-rate>
    <active-flows>active-flows</active-flows>
    <flows>flows</flows>
    <flows-exported>flows-exported</flows-exported>
    <flow-packets-exported>flow-packets-exported</flow-packets-exported>
    <flows-expired>flows-expired</flows-expired>
    <flows-aged>flows-aged</flows-aged>
  </flow-information>
</passive-monitoring-information>
```

Description Passive monitoring flow information.

Contents <active-flows>—Active flows.

<flow-bytes>—Flow bytes.

<flow-bytes-ten-second-rate>—Flow bytes 10-second rate.

<flow-packets>—Flow packets.

<flow-packets-exported>—Flows packets exported.

<flow-packets-ten-second-rate>—Flow packets 10-second rate.

<flows>—Flows.

<flows-aged>—Flows active timed out.

<flows-expired>—Flows inactive timed out.

<flows-exported>—Flows exported.

< *memory-information* >

Usage

```
<passive-monitoring-information>
  <memory-information>
    <allocation-count>allocation-count</allocation-count>
    <free-count>free-count</free-count>
    <maximum-allocated>maximum-allocated</maximum-allocated>
    <allocations-per-second>allocations-per-second</allocations-per-second>
    <frees-per-second>frees-per-second</frees-per-second>
    <memory-used>memory-used</memory-used>
    <memory-free>memory-free</memory-free>
  </memory-information>
</passive-monitoring-information>
```

Description Passive monitoring memory utilization.

Contents <allocation-count>—Flow record allocations.

<allocations-per-second>—Flow record allocations per second.

<free-count>—Flow record frees.

<frees-per-second>—Flow record frees per second.

<maximum-allocated>—Maximum flow records allocated.

<memory-free>—Total memory free.

<memory-used>—Total memory used.

< *passive-monitoring-information* >

Usage

```
<rpc-reply>
  <passive-monitoring-information>
    <interface-name>interface-name</interface-name>
    <local-index>local-index</local-index>
    <usage-information>...</usage-information>
    <memory-information>...</memory-information>
    <flow-information>...</flow-information>
    <error-information>...</error-information>
    <status-information>...</status-information>
  </passive-monitoring-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <error-information>—Passive monitoring error information.

<flow-information>—Passive monitoring flow information.

<interface-name>—Physical interface name.

<local-index>—Local physical interface index.

<memory-information>—Passive monitoring memory utilization.

<status-information>—Passive monitoring status information.

<usage-information>—Passive monitoring CPU utilization.

< *status-information* >

Usage

```
<passive-monitoring-information>
  <status-information>
    <status-group-index>status-group-index</status-group-index>
    <status-export-interval>status-export-interval</status-export-interval>
    <status-export-format>status-export-format</status-export-format>
    <status-proto>status-proto</status-proto>
    <status-engine-type>status-engine-type</status-engine-type>
    <status-engine-id>status-engine-id</status-engine-id>
  </status-information>
</passive-monitoring-information>
```

Description Passive monitoring status information.

Contents <status-engine-id>—Engine ID.

<status-engine-type>—Engine type.

<status-export-format>—Export format.

<status-export-interval>—Export interval in seconds.

<status-group-index>—Group index.

<status-proto>—Protocol.

< *usage-information* >

Usage

```
<passive-monitoring-information>
  <usage-information>
    <uptime>uptime</uptime>
    <inttime>inttime</inttime>
    <five-second-load>five-second-load</five-second-load>
    <one-minute-load>one-minute-load</one-minute-load>
  </usage-information>
</passive-monitoring-information>
```

Description Passive monitoring CPU utilization.

Contents <five-second-load>—5 second load.

<inttime>—CPU interrupt time in microseconds.

<one-minute-load>—1 minute load.

<uptime>—CPU uptime in milliseconds.

Summary of Routing Protocols Response Tags

This section lists the tags returned by the JUNOScript server to describe routing protocol settings. The associated XML namespace is http://xml.juniper.net/junos/5.5R1/junos-routing. To review the DTD for the tags, see "DTD for Routing Protocols Response Tags" on page 1765.

< *admin-groups* >

Usage

```
<isis-reachability-subtlv | mpls-lsp | mpls-lsp-path | ted-link>
  <admin-groups>
    <color>color</color>
    <no-group-flag/>
    <admin-group-name>admin-group-name</admin-group-name>
    <admin-group-number>admin-group-number</admin-group-number>
  </admin-groups>
</isis-reachability-subtlv | mpls-lsp | mpls-lsp-path | ted-link>
```

Description No documentation is available yet.

Contents <admin-group-name>—Name of the admin group.

<admin-group-number>—Number of the admin group.

<color>—No documentation is available yet.

<no-group-flag>—No documentation is available yet.

< *aggregate* >

Usage

```
<rt-entry>
  <aggregate>
    <aggregate-flags>aggregate-flags</aggregate-flags>
    <aggregate-depth>aggregate-depth</aggregate-depth>
    <aggregate-active/>
    <aggregate-as-path>...</aggregate-as-path>
    <contributing-route-count>contributing-route-count</contributing-route-count>
    <aggregated-route>...</aggregated-route>
  </aggregate>
</rt-entry>
```

Description No documentation is available yet.

Contents <aggregate-active>—Present if this aggregate is active.

<aggregate-as-path>—No documentation is available yet.

<aggregate-depth>—Depth of this aggregate.

<aggregate-flags>—Flags on this aggregate route entry.

<aggregated-route>—No documentation is available yet.

<contributing-route-count>—Number of contributing routes in this aggregate.

< *aggregate-as-path* >

Usage

```
<aggregate>
  <aggregate-as-path>
    <as-path>as-path</as-path>
    <reference-count>reference-count</reference-count>
  </aggregate-as-path>
</aggregate>
```

Description No documentation is available yet.

Contents <as-path>—AS path of this route.

<reference-count>—No documentation is available yet.

< *aggregated-route* >

Usage

```
<aggregate>
  <aggregated-route>
    <destination-prefix>destination-prefix</destination-prefix>
    <protocol-name>protocol-name</protocol-name>
  </aggregated-route>
</aggregate>
```

Description No documentation is available yet.

Contents <destination-prefix>—Destination prefix and mask.

<protocol-name>—No documentation is available yet.

< *area-address-tlv* >

Usage

```
<isis-tlv>
  <area-address-tlv>
    <address>address</address>
    <tlv-length>tlv-length</tlv-length>
  </area-address-tlv>
</isis-tlv>
```

Description No documentation is available yet.

Contents <address>—No documentation is available yet.

<tlv-length>—No documentation is available yet.

< *authentication-tlv* >

Usage

```
<isis-tlv>
  <authentication-tlv>
    <tlv-length>tlv-length</tlv-length>
  </authentication-tlv>
</isis-tlv>
```

Description No documentation is available yet.

Contents <tlv-length>—No documentation is available yet.

< *bgp-error* >

Usage

```
<bgp-peer>
  <bgp-error>
    <name>name</name>
    <send-count>send-count</send-count>
    <receive-count>receive-count</receive-count>
  </bgp-error>
</bgp-peer>
```

Description No documentation is available yet.

Contents <name>—No documentation is available yet.

<receive-count>—No documentation is available yet.

<send-count>—No documentation is available yet.

< *bgp-group* >

Usage

```
<bgp-group-information>
  <bgp-group>
    <type>type</type>
    <peer-as>peer-as</peer-as>
    <local-as>local-as</local-as>
    <group-state>group-state</group-state>
    <name>name</name>
    <bgp-options>bgp-options</bgp-options>
    <bgp-options2>bgp-options2</bgp-options2>
    <group-flags>group-flags</group-flags>
    <peer-count>peer-count</peer-count>
    <established-count>established-count</established-count>
    <peer-address>peer-address</peer-address>
    <unconfigured-peers>...</unconfigured-peers>
    <igp-protocol>igp-protocol</igp-protocol>
    <route-queue>...</route-queue>
    <bgp-peer>...</bgp-peer>
    <bgp-option-information>...</bgp-option-information>
    <tracing-information>...</tracing-information>
    <bgp-rib>...</bgp-rib>
  </bgp-group>
</bgp-group-information>
```

Description Operational and configuration information for a BGP group.

Contents <bgp-option-information>—Configured BGP options.

<bgp-options>—No documentation is available yet.

<bgp-options2>—No documentation is available yet.

<bgp-peer>—Operational and configuration information for a BGP peer.

<bgp-rib>—No documentation is available yet.

<established-count>—Number of peers within the group that are in the established state.

<group-flags>—Internal BGP group flags.

<group-state>—No documentation is available yet.

<igp-protocol>—No documentation is available yet.

<local-as>—Local AS number.

<name>—No documentation is available yet.

<peer-address>—Address of the BGP peer, followed by its port number.

<peer-as>—Peer AS number.

<peer-count>—Total number of peers.

<route-queue>—No documentation is available yet.

<tracing-information>—No documentation is available yet.

<type>—No documentation is available yet.

<unconfigured-peers>—The set of address prefixes from which this group allows peering.

< *bgp-group-information* >

Usage

```
<rpc-reply>
  <bgp-group-information>
    <bgp-group>...</bgp-group>
    <bgp-information>...</bgp-information>
  </bgp-group-information>
</rpc-reply>
```

Description Operational and configuration information for BGP groups.

Contents <bgp-group>—Operational and configuration information for a BGP group.

<bgp-information>—Operational and configuration information for BGP.

< *bgp-information* >

Usage

```
<bgp-group-information>
  <bgp-information>
    <group-count>group-count</group-count>
    <peer-count>peer-count</peer-count>
    <external-peer-count>external-peer-count</external-peer-count>
    <internal-peer-count>internal-peer-count</internal-peer-count>
    <down-peer-count>down-peer-count</down-peer-count>
    <unconfigured-peer-count>unconfigured-peer-count</unconfigured-peer-count>
    <half-open-peer-count>half-open-peer-count</half-open-peer-count>
    <igp-converging/>
    <flap-count>flap-count</flap-count>
    <bgp-rib>...</bgp-rib>
    <bgp-peer>...</bgp-peer>
  </bgp-information>
</bgp-group-information>
```

Description Operational and configuration information for BGP.

Contents <bgp-peer>—Operational and configuration information for a BGP peer.

<bgp-rib>—No documentation is available yet.

<down-peer-count>—No documentation is available yet.

<external-peer-count>—No documentation is available yet.

<flap-count>—Number of times the BGP session has gone down and then come back up.

<group-count>—No documentation is available yet.

<half-open-peer-count>—No documentation is available yet.

<igp-converging>—This tag is present if BGP is quenched because the IGP is still converging.

<internal-peer-count>—No documentation is available yet.

<peer-count>—Total number of peers.

<unconfigured-peer-count>—No documentation is available yet.

< *bgp-option-information* >

Usage

```
<bgp-peer | bgp-group>
  <bgp-option-information>
    <export-policy>export-policy</export-policy>
    <import-policy>import-policy</import-policy>
    <bgp-options>bgp-options</bgp-options>
    <bgp-options2>bgp-options2</bgp-options2>
    <authentication-key>authentication-key</authentication-key>
    <authentication-configured/>
    <address-families>address-families</address-families>
    <local-address>local-address</local-address>
    <holdtime>holdtime</holdtime>
    <metric-out>metric-out</metric-out>
    <preference>preference</preference>
    <local-preference>local-preference</local-preference>
    <prefix-limit>...</prefix-limit>
    <local-as>local-as</local-as>
    <local-as-private/>
    <local-system-as>local-system-as</local-system-as>
    <receive-buffer-size>receive-buffer-size</receive-buffer-size>
    <send-buffer-size>send-buffer-size</send-buffer-size>
    <outbound-timer>outbound-timer</outbound-timer>
    <med-action>med-action</med-action>
    <ipsec-sa>ipsec-sa</ipsec-sa>
  </bgp-option-information>
</bgp-peer | bgp-group>
```

Description Configured BGP options.

Contents

<address-families>—No documentation is available yet.

<authentication-configured>—No documentation is available yet.

<authentication-key>—No documentation is available yet.

<bgp-options>—No documentation is available yet.

<bgp-options2>—No documentation is available yet.

<export-policy>—No documentation is available yet.

<holdtime>—Hold time configured with the hold-time statement. The default hold time is 90 seconds. The hold time is three times the interval at which keepalive messages are sent.

<import-policy>—No documentation is available yet.

<ipsec-sa>—No documentation is available yet.

<local-address>—No documentation is available yet.

<local-as>—Local AS number.

<local-as-private>—No documentation is available yet.

<local-preference>—No documentation is available yet.

<local-system-as>—No documentation is available yet.

<med-action>—No documentation is available yet.

<metric-out>—No documentation is available yet.

<outbound-timer>—No documentation is available yet.

<preference>—Preference value configured with the preference statement. The default preference value is 170.

<prefix-limit>—No documentation is available yet.

<receive-buffer-size>—No documentation is available yet.

<send-buffer-size>—No documentation is available yet.

< *bgp-output-queue* >

Usage

```
<bgp-peer>
  <bgp-output-queue>
    <number>number</number>
    <count>count</count>
  </bgp-output-queue>
</bgp-peer>
```

Description Number of BGP packets that are queued to be transmitted to a particular neighbor for a particular routing table.

Contents <count>—No documentation is available yet.

<number>—No documentation is available yet.

< *bgp-peer* >

Usage

```
<bgp-information | bgp-group>
  <bgp-peer>
    <peer-address>peer-address</peer-address>
    <peer-as>peer-as</peer-as>
    <local-address>local-address</local-address>
    <local-as>local-as</local-as>
    <description>description</description>
    <peer-type>peer-type</peer-type>
    <route-reflector-client/>
    <peer-state>peer-state</peer-state>
    <peer-flags>peer-flags</peer-flags>
    <last-state>last-state</last-state>
    <last-event>last-event</last-event>
    <last-error>last-error</last-error>
    <bgp-option-information>...</bgp-option-information>
    <flap-count>flap-count</flap-count>
    <peer-id>peer-id</peer-id>
    <local-id>local-id</local-id>
    <active-holdtime>active-holdtime</active-holdtime>
    <keepalive-interval>keepalive-interval</keepalive-interval>
    <local-interface-name>local-interface-name</local-interface-name>
    <local-interface-index>local-interface-index</local-interface-index>
    <nlri-type-peer>nlri-type-peer</nlri-type-peer>
    <nlri-type-session>nlri-type-session</nlri-type-session>
    <peer-no-refresh/>
    <peer-refresh-capability>peer-refresh-capability</peer-refresh-capability>
    <peer-restart-nlri-configured>peer-restart-nlri-configured</peer-restart-nlri-configured>
    <peer-restart-time-configured>restart-time-configured</peer-restart-time-configured>
    <peer-stale-route-time-configured>time-configured</peer-stale-route-time-configured>
    <peer-restart-time-received>peer-restart-time-received</peer-restart-time-received>
    <peer-restart-flags-received>peer-restart-flags-received</peer-restart-flags-received>
    <peer-restart-nlri-received>peer-restart-nlri-received</peer-restart-nlri-received>
    <peer-restart-nlri-state-saved>nlri-state-saved</peer-restart-nlri-state-saved>
    <peer-no-restart/>
    <peer-restart-nlri-negotiated>peer-restart-nlri-negotiated</peer-restart-nlri-negotiated>
    <peer-end-of-rib-received>peer-end-of-rib-received</peer-end-of-rib-received>
    <peer-end-of-rib-sent>peer-end-of-rib-sent</peer-end-of-rib-sent>
    <peer-end-of-rib-scheduled>peer-end-of-rib-scheduled</peer-end-of-rib-scheduled>
    <last-received>last-received</last-received>
    <last-sent>last-sent</last-sent>
    <last-checked>last-checked</last-checked>
    <input-messages>input-messages</input-messages>
    <input-updates>input-updates</input-updates>
    <input-refreshes>input-refreshes</input-refreshes>
    <input-octets>input-octets</input-octets>
    <output-messages>output-messages</output-messages>
    <output-updates>output-updates</output-updates>
    <output-refreshes>output-refreshes</output-refreshes>
    <output-octets>output-octets</output-octets>
    <buffered-octets-rx>buffered-octets-rx</buffered-octets-rx>
    <buffered-octets-tx>buffered-octets-tx</buffered-octets-tx>
    <bgp-output-queue>...</bgp-output-queue>
    <route-queue-count>route-queue-count</route-queue-count>
    <bgp-rib>...</bgp-rib>
    <elapsed-time>elapsed-time</elapsed-time>
```

```
    <extended-information>extended-information</extended-information>
    <bgp-error>...</bgp-error>
    <route-queue>...</route-queue>
    <tracing-information>...</tracing-information>
  </bgp-peer>
</bgp-information | bgp-group>
```

Description Operational and configuration information for a BGP peer.

Contents <active-holdtime>—Hold time the local router negotiated with the peer.

<bgp-error>—No documentation is available yet.

<bgp-option-information>—Configured BGP options.

<bgp-output-queue>—Number of BGP packets that are queued to be transmitted to a particular neighbor for a particular routing table.

<bgp-rib>—No documentation is available yet.

<buffered-octets-rx>—Number of octets that have been received and are still buffered.

<buffered-octets-tx>—Number of octets in the transmit buffer.

<description>—No documentation is available yet.

<elapsed-time>—Time this adjacency or session has been up or down.

<extended-information>—No documentation is available yet.

<flap-count>—Number of times the BGP session has gone down and then come back up.

<input-messages>—Total number of messages received from the receive socket buffer.

<input-octets>—Number of octets received from the receive socket buffer.

<input-refreshes>—Number of refresh messages received from the receive socket buffer.

<input-updates>—Number of update messages received from the receive socket buffer.

<keepalive-interval>—No documentation is available yet.

<last-checked>—No documentation is available yet.

<last-error>—Last error that occurred in the BGP session.

<last-event>—Last activity that occurred in the BGP session.

<last-received>—No documentation is available yet.

<last-sent>—No documentation is available yet.

<last-state>—Previous state of the BGP session.

<local-address>—No documentation is available yet.

<local-as>—Local AS number.

<local-id>—Router identifier of the local router.

<local-interface-index>—SNMP ifIndex of local interface.

<local-interface-name>—Logical interface name.

<nlri-type-peer>—Type of NLRIs supported by the peer: unicast or multicast.

<nlri-type-session>—Types of NLRIs being used for this session.

<output-messages>—Total number of messages written to the receive socket buffer.

<output-octets>—Number of octets written to the receive socket buffer.

<output-refreshes>—Number of refresh messages written to the receive socket buffer.

<output-updates>—Number of update messages written to the receive socket buffer.

<peer-address>—Address of the BGP peer, followed by its port number.

<peer-as>—Peer AS number.

<peer-end-of-rib-received>—Types of NLRIs for which peer received an end-of-rib marker.

<peer-end-of-rib-scheduled>—Types of NLRIs for which peer scheduled an end-of-rib marker.

<peer-end-of-rib-sent>—Types of NLRIs for which peer sent an end-of-rib marker.

<peer-flags>—Internal BGP flags.

<peer-id>—Router identifier of the peer.

<peer-no-refresh>—Present if this peer does not support refresh.

<peer-no-restart>—Present if this peer does not support graceful restart.

<peer-refresh-capability>—Version of refresh capability supported by this peer.

<peer-restart-flags-received>—Flags received from this peer in its restart capability.

<peer-restart-nlri-configured>—Types of NLRIs for which restart is locally configured.

<peer-restart-nlri-negotiated>—Types of NLRIs for which restart negotiated with peer.

<peer-restart-nlri-received>—Types of NLRIs for which restart was advertised by peer.

<peer-restart-nlri-state-saved>—Types of NLRIs for which peer saved all forwarding state.

<peer-restart-time-configured>—Restart time configured locally for this peer.

<peer-restart-time-received>—Restart time requested by peer in its restart capability.

<peer-stale-route-time-configured>—Maximum time for which stale routes from peer are kept.

<peer-state>—Current state of the BGP session.

<peer-type>—No documentation is available yet.

<route-queue>—No documentation is available yet.

<route-queue-count>—Total number of routes queued for output to this peer.

<route-reflector-client>—No documentation is available yet.

<tracing-information>—No documentation is available yet.

< *bgp-rib* >

Usage

```
<bgp-information | bgp-peer | bgp-group>
  <bgp-rib>
    <name>name</name>
    <rib-bit>rib-bit</rib-bit>
    <bgp-rib-state>bgp-rib-state</bgp-rib-state>
    <vpn-rib-state>vpn-rib-state</vpn-rib-state>
    <send-state>send-state</send-state>
    <total-external-prefix-count>total-external-prefix-count</total-external-prefix-count>
    <active-external-prefix-count>active-external-prefix-count</active-external-prefix-count>
    <suppressed-external-prefix-count>prefix-count</suppressed-external-prefix-count>
    <total-internal-prefix-count>total-internal-prefix-count</total-internal-prefix-count>
    <active-internal-prefix-count>active-internal-prefix-count</active-internal-prefix-count>
    <suppressed-internal-prefix-count>prefix-count</suppressed-internal-prefix-count>
    <total-prefix-count>total-prefix-count</total-prefix-count>
    <active-prefix-count>active-prefix-count</active-prefix-count>
    <received-prefix-count>received-prefix-count</received-prefix-count>
    <damped-prefix-count>damped-prefix-count</damped-prefix-count>
    <suppressed-prefix-count>suppressed-prefix-count</suppressed-prefix-count>
    <history-prefix-count>history-prefix-count</history-prefix-count>
    <pending-prefix-count>pending-prefix-count</pending-prefix-count>
  </bgp-rib>
</bgp-information | bgp-peer | bgp-group>
```

Description No documentation is available yet.

Contents

<active-external-prefix-count>—Number of active prefixes received from external peers.

<active-internal-prefix-count>—Number of active prefixes received from internal peers.

<active-prefix-count>—Number of active prefixes.

<bgp-rib-state>—State of the RIB. Indicates if a BGP graceful restart is in progress.

<damped-prefix-count>—Number of prefixes in any damped state.

<history-prefix-count>—Number of prefixes with damping history maintained.

<name>—No documentation is available yet.

<pending-prefix-count>—Number of prefixes with pending changes.

<received-prefix-count>—For a peer RIB, number of prefixes received from this peer.

<rib-bit>—Number that represents the entry in the routing table for this peer.

<send-state>—State of the BGP group: in sync, not in sync, or not advertising.

<suppressed-external-prefix-count>—Number of external prefixes suppressed due to damping.

<suppressed-internal-prefix-count>—Number of internal prefixes suppressed due to damping.

<suppressed-prefix-count>—Number of prefixes suppressed due to damping.

<total-external-prefix-count>—Total number of prefixes received from external peers.

<total-internal-prefix-count>—Total number of prefixes received from internal peers.

<total-prefix-count>—Total number of prefixes in this RIB.

<vpn-rib-state>—State of the RIB. Indicates if a VPN graceful restart is in progress.

< *connection* >

Usage

```
<reference-site | l2circuit-neighbor>
  <connection>
    <connection-id>connection-id</connection-id>
    <connection-type>connection-type</connection-type>
    <connection-status>connection-status</connection-status>
    <last-change>last-change</last-change>
    <up-transitions>up-transitions</up-transitions>
    <local-interface>...</local-interface>
    <remote-interface>...</remote-interface>
    <remote-pe>remote-pe</remote-pe>
    <inbound-label>inbound-label</inbound-label>
    <outbound-label>outbound-label</outbound-label>
    <history>...</history>
  </connection>
</reference-site | l2circuit-neighbor>
```

Description No documentation is available yet.

Contents

<connection-id>—No documentation is available yet.

<connection-status>—No documentation is available yet.

<connection-type>—No documentation is available yet.

<history>—No documentation is available yet.

<inbound-label>—No documentation is available yet.

<last-change>—No documentation is available yet.

<local-interface>—No documentation is available yet.

<outbound-label>—No documentation is available yet.

<remote-interface>—No documentation is available yet.

<remote-pe>—No documentation is available yet.

<up-transitions>—No documentation is available yet.

< *cspf-paths* >

Usage

```
<mpls-cspf>
  <cspf-paths>
    <total-paths>total-paths</total-paths>
    <successful>successful</successful>
    <no-route>no-route</no-route>
    <sys-error>sys-error</sys-error>
    <cspfs>cspfs</cspfs>
  </cspf-paths>
</mpls-cspf>
```

Description CSPF path computations statistics.

Contents <cspfs>—No documentation is available yet.

<no-route>—No documentation is available yet.

<successful>—No documentation is available yet.

<sys-error>—No documentation is available yet.

<total-paths>—No documentation is available yet.

< *cspf-queue* >

Usage

```
<mpls-cspf>
  <cspf-queue>
    <current>current</current>
    <maximum>maximum</maximum>
    <dequeued>dequeued</dequeued>
  </cspf-queue>
</mpls-cspf>
```

Description CSPF queue statistics.

Contents <current>—No documentation is available yet.

<dequeued>—No documentation is available yet.

<maximum>—No documentation is available yet.

< *cspf-timing* >

Usage

```
<mpls-cspf>
  <cspf-timing>
    <total-time>total-time</total-time>
    <cspf-time>cspf-time</cspf-time>
    <average-time>average-time</average-time>
    <rpd-time>rpd-time</rpd-time>
  </cspf-timing>
</mpls-cspf>
```

Description CSPF timing statistics.

Contents <average-time>—No documentation is available yet.

<cspf-time>—No documentation is available yet.

<rpd-time>—No documentation is available yet.

<total-time>—No documentation is available yet.

< *detour* >

Usage

```
<rsvp-session>
  <detour>
    <lsp-state>lsp-state</lsp-state>
    <packet-information>...</packet-information>
    <explicit-route>...</explicit-route>
    <record-route>...</record-route>
  </detour>
</rsvp-session>
```

Description Detour that originated at this LSR.

Contents <explicit-route>—Explicit Route Object (ERO).

<lsp-state>—State of an LSP.

<packet-information>—RSVP packets sent or received per session.

<record-route>—Record Route Object (RRO).

< *detour-bandwidth* >

Usage

```
<rsvp-telink | rsvp-interface>
  <detour-bandwidth>
    <bandwidth-priority>bandwidth-priority</bandwidth-priority>
    <total-reserved-bandwidth>total-reserved-bandwidth</total-reserved-bandwidth>
    <interface-address>interface-address</interface-address>
  </detour-bandwidth>
</rsvp-telink | rsvp-interface>
```

Description Bandwidth reserved on detour at different priority levels.

Contents <bandwidth-priority>—No documentation is available yet.

<interface-address>—No documentation is available yet.

<total-reserved-bandwidth>—Total amount of bandwidth currently reserved.

< *detour-branch* >

Usage

```
<rsvp-session>
  <detour-branch>
    <source-address>source-address</source-address>
    <skip-address>skip-address</skip-address>
    <lsp-state>lsp-state</lsp-state>
    <explicit-route>...</explicit-route>
    <record-route>...</record-route>
    <packet-information>...</packet-information>
  </detour-branch>
</rsvp-session>
```

Description Detour that originated at some other LSR.

Contents <explicit-route>—Explicit Route Object (ERO).

<lsp-state>—State of an LSP.

<packet-information>—RSVP packets sent or received per session.

<record-route>—Record Route Object (RRO).

<skip-address>—Address of node or link to be skipped.

<source-address>—No documentation is available yet.

< *explicit-route* >

Usage

```
<rsvp-neighbor | rsvp-session | detour | detour-branch | mpls-lsp-path>
  <explicit-route>
    <address>address</address>
    <explicit-route-type>explicit-route-type</explicit-route-type>
  </explicit-route>
</rsvp-neighbor | rsvp-session | detour | detour-branch | mpls-lsp-path>
```

Description Explicit Route Object (ERO).

Contents <address>—No documentation is available yet.

<explicit-route-type>—No documentation is available yet.

< *history* >

Usage

```
<connection>
  <history>
    <log-time-stamp>log-time-stamp</log-time-stamp>
    <log-event>log-event</log-event>
    <changed-entity>changed-entity</changed-entity>
  </history>
</connection>
```

Description No documentation is available yet.

Contents <changed-entity>—No documentation is available yet.

<log-event>—No documentation is available yet.

<log-time-stamp>—No documentation is available yet.

< *hostname-tlv* >

Usage

```
<isis-tlv>
  <hostname-tlv>
    <hostname>hostname</hostname>
  </hostname-tlv>
</isis-tlv>
```

Description No documentation is available yet.

Contents <hostname>—No documentation is available yet.

< *idrp-tlv* >

Usage

```
<isis-tlv>
  <idrp-tlv>
    <tlv-length>tlv-length</tlv-length>
  </idrp-tlv>
</isis-tlv>
```

Description No documentation is available yet.

Contents <tlv-length>—No documentation is available yet.

< *instance* >

Usage

```
<l2vpn-connection-information>
  <instance>
    <instance-name>instance-name</instance-name>
    <instance-display-error>instance-display-error</instance-display-error>
    <reference-site>...</reference-site>
  </instance>
</l2vpn-connection-information>
```

Description No documentation is available yet.

Contents <instance-display-error>—No documentation is available yet.

<instance-name>—No documentation is available yet.

<reference-site>—No documentation is available yet.

< *instance-core* >

Usage

```
<instance-information>
  <instance-core>
    <instance-name>instance-name</instance-name>
    <instance-description>instance-description</instance-description>
    <router-id>router-id</router-id>
    <instance-type>instance-type</instance-type>
    <instance-state>instance-state</instance-state>
    <instance-restart-state>instance-restart-state</instance-restart-state>
    <instance-pathsel-timeout>instance-pathsel-timeout</instance-pathsel-timeout>
    <prib-name>prib-name</prib-name>
    <prib-route-count>prib-route-count</prib-route-count>
    <prib-active-count>prib-active-count</prib-active-count>
    <prib-holddown-count>prib-holddown-count</prib-holddown-count>
    <prib-hidden-count>prib-hidden-count</prib-hidden-count>
    <instance-interface>...</instance-interface>
    <instance-vrf>...</instance-vrf>
    <instance-rib>...</instance-rib>
  </instance-core>
</instance-information>
```

Description No documentation is available yet.

Contents <instance-description>—No documentation is available yet.

<instance-interface>—No documentation is available yet.

<instance-name>—No documentation is available yet.

<instance-pathsel-timeout>—Maximum time to defer path selection in instance.

<instance-restart-state>—If all tables in instance are done with restart.

<instance-rib>—No documentation is available yet.

<instance-state>—No documentation is available yet.

<instance-type>—No documentation is available yet.

<instance-vrf>—No documentation is available yet.

<prib-active-count>—No documentation is available yet.

<prib-hidden-count>—No documentation is available yet.

<prib-holddown-count>—No documentation is available yet.

<prib-name>—No documentation is available yet.

<prib-route-count>—No documentation is available yet.

<router-id>—No documentation is available yet.

< *instance-information* >

Usage

```
<rpc-reply>
  <instance-information>
    <instance-core>...</instance-core>
  </instance-information>
</rpc-reply>
```

Description Operational and configuration information for routing instances.

Contents <instance-core>—No documentation is available yet.

< *instance-interface* >

Usage

```
<instance-core>
  <instance-interface>
    <interface-name>interface-name</interface-name>
  </instance-interface>
</instance-core>
```

Description No documentation is available yet.

Contents <interface-name>—No documentation is available yet.

< *instance-rib* >

Usage

```
<instance-core>
  <instance-rib>
    <irib-name>irib-name</irib-name>
    <irib-route-count>irib-route-count</irib-route-count>
    <irib-active-count>irib-active-count</irib-active-count>
    <irib-holddown-count>irib-holddown-count</irib-holddown-count>
    <irib-hidden-count>irib-hidden-count</irib-hidden-count>
    <irib-restart-state>irib-restart-state</irib-restart-state>
  </instance-rib>
</instance-core>
```

Description No documentation is available yet.

Contents <irib-active-count>—No documentation is available yet.

<irib-hidden-count>—No documentation is available yet.

<irib-holddown-count>—No documentation is available yet.

<irib-name>—No documentation is available yet.

<irib-restart-state>—No documentation is available yet.

<irib-route-count>—No documentation is available yet.

< *instance-vrf* >

Usage

```
<instance-core>
  <instance-vrf>
    <route-distinguisher>route-distinguisher</route-distinguisher>
    <vrf-import>vrf-import</vrf-import>
    <vrf-export>vrf-export</vrf-export>
    <vrf-import-target>vrf-import-target</vrf-import-target>
    <vrf-export-target>vrf-export-target</vrf-export-target>
  </instance-vrf>
</instance-core>
```

Description No documentation is available yet.

Contents <route-distinguisher>—No documentation is available yet.

<vrf-export>—No documentation is available yet.

<vrf-export-target>—No documentation is available yet.

<vrf-import>—No documentation is available yet.

<vrf-import-target>—No documentation is available yet.

< *interface* >

Usage

```
<reference-site>
  <interface>
    <interface-name>interface-name</interface-name>
    <interface-id>interface-id</interface-id>
    <interface-description>interface-description</interface-description>
  </interface>
</reference-site>
```

Description No documentation is available yet.

Contents <interface-description>—No documentation is available yet.

<interface-id>—No documentation is available yet.

<interface-name>—No documentation is available yet.

< interface-level-data >

Usage

```
<isis-interface>
  <interface-level-data>
    <level>level</level>
    <adjacency-count>adjacency-count</adjacency-count>
    <interface-priority>interface-priority</interface-priority>
    <metric>metric</metric>
    <te-metric>te-metric</te-metric>
    <passive>passive</passive>
    <hello-time>hello-time</hello-time>
    <holdtime>holdtime</holdtime>
    <dr-id-one>dr-id-one</dr-id-one>
    <dr-id-two>dr-id-two</dr-id-two>
    <dr-flag>dr-flag</dr-flag>
  </interface-level-data>
</isis-interface>
```

Description No documentation is available yet.

Contents

<adjacency-count>—No documentation is available yet.

<dr-flag>—No documentation is available yet.

<dr-id-one>—No documentation is available yet.

<dr-id-two>—No documentation is available yet.

<hello-time>—No documentation is available yet.

<holdtime>—Hold time configured with the hold-time statement. The default hold time is 90 seconds. The hold time is three times the interval at which keepalive messages are sent.

<interface-priority>—No documentation is available yet.

<level>—No documentation is available yet.

<metric>—No documentation is available yet.

<passive>—No documentation is available yet.

<te-metric>—No documentation is available yet.

< *ip-prefix-tlv* >

Usage

```
<isis-tlv>
  <ip-prefix-tlv>
    <isis-topology-id>isis-topology-id</isis-topology-id>
    <address-prefix>address-prefix</address-prefix>
    <metric>metric</metric>
    <prefix-status>prefix-status</prefix-status>
    <subtlv-size>subtlv-size</subtlv-size>
    <isis-prefix-subtlv>...</isis-prefix-subtlv>
  </ip-prefix-tlv>
</isis-tlv>
```

Description No documentation is available yet.

Contents <address-prefix>—No documentation is available yet.

<isis-prefix-subtlv>—No documentation is available yet.

<isis-topology-id>—No documentation is available yet.

<metric>—No documentation is available yet.

<prefix-status>—No documentation is available yet.

<subtlv-size>—No documentation is available yet.

< *ipaddress-tlv* >

Usage

```
<isis-tlv>
  <ipaddress-tlv>
    <address>address</address>
  </ipaddress-tlv>
</isis-tlv>
```

Description No documentation is available yet.

Contents <address>—No documentation is available yet.

< *ipv6-ra-advertisement* >

Usage

```
<ipv6-ra-interface>
  <ipv6-ra-advertisement>
    <ipv6-source-address>ipv6-source-address</ipv6-source-address>
    <ipv6-ra-time-since>ipv6-ra-time-since</ipv6-ra-time-since>
    <ipv6-ra-managed-flag>ipv6-ra-managed-flag</ipv6-ra-managed-flag>
    <ipv6-ra-managed-flag-conflict>managed-flag-conflict</ipv6-ra-managed-flag-conflict>
    <ipv6-ra-other-config-flag>ipv6-ra-other-config-flag</ipv6-ra-other-config-flag>
    <ipv6-ra-other-config-flag-conflict>flag-conflict</ipv6-ra-other-config-flag-conflict>
    <ipv6-ra-link-mtu>ipv6-ra-link-mtu</ipv6-ra-link-mtu>
    <ipv6-ra-link-mtu-conflict>ipv6-ra-link-mtu-conflict</ipv6-ra-link-mtu-conflict>
    <ipv6-ra-reachable-time>ipv6-ra-reachable-time</ipv6-ra-reachable-time>
    <ipv6-ra-reachable-time-conflict>time-conflict</ipv6-ra-reachable-time-conflict>
    <ipv6-ra-default-lifetime>ipv6-ra-default-lifetime</ipv6-ra-default-lifetime>
    <ipv6-ra-default-lifetime-conflict>lifetime-conflict</ipv6-ra-default-lifetime-conflict>
    <ipv6-ra-retransmit-timer>ipv6-ra-retransmit-timer</ipv6-ra-retransmit-timer>
    <ipv6-ra-retransmit-timer-conflict>timer-conflict</ipv6-ra-retransmit-timer-conflict>
    <ipv6-ra-current-hop-limit>ipv6-ra-current-hop-limit</ipv6-ra-current-hop-limit>
    <ipv6-ra-current-hop-limit-conflict>hop-limit-conflict</ipv6-ra-current-hop-limit-conflict>
    <ipv6-ra-prefix>...</ipv6-ra-prefix>
  </ipv6-ra-advertisement>
</ipv6-ra-interface>
```

Description No documentation is available yet.

Contents <ipv6-ra-current-hop-limit>—The advertised current hop limit flag.

<ipv6-ra-current-hop-limit-conflict>—A conflict with the advertised current hop limit flag.

<ipv6-ra-default-lifetime>—The advertised default lifetime flag.

<ipv6-ra-default-lifetime-conflict>—A conflict with the advertised default lifetime flag.

<ipv6-ra-link-mtu>—The advertised link MTU.

<ipv6-ra-link-mtu-conflict>—A conflict with the advertised link MTU.

<ipv6-ra-managed-flag>—The advertised managed flag.

<ipv6-ra-managed-flag-conflict>—A conflict with the advertised managed flag.

<ipv6-ra-other-config-flag>—The advertised other configuration flag.

<ipv6-ra-other-config-flag-conflict>—A conflict with the advertised other configuration flag.

<ipv6-ra-prefix>—No documentation is available yet.

<ipv6-ra-reachable-time>—The advertised reachable time.

<ipv6-ra-reachable-time-conflict>—A conflict with the advertised reachable time.

<ipv6-ra-retransmit-timer>—The advertised retransmit timer flag.

<ipv6-ra-retransmit-timer-conflict>—A conflict with the advertised retransmit timer flag.

<ipv6-ra-time-since>—How long since the advertisement was received.

<ipv6-source-address>—The sender of the advertisement.

< *ipv6-ra-information* >

Usage

```
<rpc-reply>
  <ipv6-ra-information>
    <ipv6-ra-interface>...</ipv6-ra-interface>
  </ipv6-ra-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ipv6-ra-interface>—No documentation is available yet.

< *ipv6-ra-interface* >

Usage

```
<ipv6-ra-information>
  <ipv6-ra-interface>
    <interface-name>interface-name</interface-name>
    <ipv6-ra-advertisements-sent>advertisements-sent</ipv6-ra-advertisements-sent>
    <ipv6-ra-advertisement-sent-time>sent-time</ipv6-ra-advertisement-sent-time>
    <ipv6-ra-solicits-received>ipv6-ra-solicits-received</ipv6-ra-solicits-received>
    <ipv6-ra-solicit-receive-time>ipv6-ra-solicit-receive-time</ipv6-ra-solicit-receive-time>
    <ipv6-ra-advertisements-received>received</ipv6-ra-advertisements-received>
    <ipv6-ra-advertisement>...</ipv6-ra-advertisement>
  </ipv6-ra-interface>
</ipv6-ra-information>
```

Description No documentation is available yet.

Contents <interface-name>—No documentation is available yet.

<ipv6-ra-advertisement>—No documentation is available yet.

<ipv6-ra-advertisement-sent-time>—How long since the last router advertisement was sent.

<ipv6-ra-advertisements-received>—The number of router advertisements received.

<ipv6-ra-advertisements-sent>—The number of router advertisements sent.

<ipv6-ra-solicit-receive-time>—How long since the last router solicitation was sent.

<ipv6-ra-solicits-received>—The number of router solicitations received.

< *ipv6-ra-prefix* >

Usage

```
<ipv6-ra-advertisement>
  <ipv6-ra-prefix>
    <ipv6-ra-prefix-address>ipv6-ra-prefix-address</ipv6-ra-prefix-address>
    <ipv6-ra-prefix-valid-lifetime>ipv6-ra-prefix-valid-lifetime</ipv6-ra-prefix-valid-lifetime>
    <ipv6-ra-prefix-valid-lifetime-conflict>conflict</ipv6-ra-prefix-valid-lifetime-conflict>
    <ipv6-ra-prefix-preferred-lifetime>preferred-lifetime</ipv6-ra-prefix-preferred-lifetime>
    <ipv6-ra-prefix-preferred-lifetime-conflict>ipv6-ra-prefix-preferred-lifetime-conflict
                                                </ipv6-ra-prefix-preferred-lifetime-conflict>
    <ipv6-ra-prefix-on-link>ipv6-ra-prefix-on-link</ipv6-ra-prefix-on-link>
    <ipv6-ra-prefix-on-link-conflict>prefix-on-link-conflict</ipv6-ra-prefix-on-link-conflict>
    <ipv6-ra-prefix-autonomous>ipv6-ra-prefix-autonomous</ipv6-ra-prefix-autonomous>
    <ipv6-ra-prefix-autonomous-conflict>conflict</ipv6-ra-prefix-autonomous-conflict>
  </ipv6-ra-prefix>
</ipv6-ra-advertisement>
```

Description No documentation is available yet.

Contents <ipv6-ra-prefix-address>—An advertised prefix.

<ipv6-ra-prefix-autonomous>—The advertised autonomous flag of the prefix.

<ipv6-ra-prefix-autonomous-conflict>—A conflict with the advertised autonomous flag of the prefix.

<ipv6-ra-prefix-on-link>—The advertised on-link flag of the prefix.

<ipv6-ra-prefix-on-link-conflict>—A conflict with the advertised on-link flag of the prefix.

<ipv6-ra-prefix-preferred-lifetime>—The advertised preferred lifetime of the prefix.

<ipv6-ra-prefix-preferred-lifetime-conflict>—A conflict with the advertised preferred lifetime of the prefix.

<ipv6-ra-prefix-valid-lifetime>—The advertised valid lifetime of the prefix.

<ipv6-ra-prefix-valid-lifetime-conflict>—A conflict with the advertised valid lifetime of the prefix.

< *ipv6-reachability-tlv* >

Usage

```
<isis-tlv>
  <ipv6-reachability-tlv>
    <ipv6-address>ipv6-address</ipv6-address>
    <metric>metric</metric>
    <prefix-flags>prefix-flags</prefix-flags>
    <prefix-extern/>
    <prefix-downflag/>
    <subtlv-size>subtlv-size</subtlv-size>
    <isis-prefix-subtlv>...</isis-prefix-subtlv>
  </ipv6-reachability-tlv>
</isis-tlv>
```

Description No documentation is available yet.

Contents <ipv6-address>—No documentation is available yet.

<isis-prefix-subtlv>—No documentation is available yet.

<metric>—No documentation is available yet.

<prefix-downflag>—No documentation is available yet.

<prefix-extern>—No documentation is available yet.

<prefix-flags>—No documentation is available yet.

<subtlv-size>—No documentation is available yet.

< *ipv6address-tlv* >

Usage

```
<isis-tlv>
  <ipv6address-tlv>
    <address>address</address>
  </ipv6address-tlv>
</isis-tlv>
```

Description No documentation is available yet.

Contents <address>—No documentation is available yet.

< *isis-adjacency* >

Usage

```
<isis-adjacency-information>
  <isis-adjacency>
    <interface-name>interface-name</interface-name>
    <system-name>system-name</system-name>
    <not-remote-address/>
    <level>level</level>
    <adjacency-state>adjacency-state</adjacency-state>
    <holdtime>holdtime</holdtime>
    <interface-priority>interface-priority</interface-priority>
    <transition-count>transition-count</transition-count>
    <last-transition-time>last-transition-time</last-transition-time>
    <circuit-type>circuit-type</circuit-type>
    <adjacency-restart-capable>adjacency-restart-capable</adjacency-restart-capable>
    <adjacency-flag>adjacency-flag</adjacency-flag>
    <adjacency-topologies>adjacency-topologies</adjacency-topologies>
    <mac-address>mac-address</mac-address>
    <lan-id>lan-id</lan-id>
    <ip-address>ip-address</ip-address>
    <ipv6-address>ipv6-address</ipv6-address>
    <snpa>snpa</snpa>
    <isis-adjacency-log>...</isis-adjacency-log>
  </isis-adjacency>
</isis-adjacency-information>
```

Description No documentation is available yet.

Contents <adjacency-flag>—No documentation is available yet.

<adjacency-restart-capable>—Restart capability of the adjacency.

<adjacency-state>—State of the adjacency.

<adjacency-topologies>—No documentation is available yet.

<circuit-type>—No documentation is available yet.

<holdtime>—Hold time configured with the hold-time statement. The default hold time is 90 seconds. The hold time is three times the interval at which keepalive messages are sent.

<interface-name>—No documentation is available yet.

<interface-priority>—No documentation is available yet.

<ip-address>—No documentation is available yet.

<ipv6-address>—No documentation is available yet.

<isis-adjacency-log>—Entry describing adjacency transition.

<lan-id>—No documentation is available yet.

<last-transition-time>—No documentation is available yet.

<level>—No documentation is available yet.

<mac-address>—No documentation is available yet.

<not-remote-address>—No documentation is available yet.

<snpa>—No documentation is available yet.

<system-name>—The hostname for a system.

<transition-count>—No documentation is available yet.

< isis-adjacency-information >

Usage

```
<rpc-reply>
  <isis-adjacency-information>
    <isis-adjacency>...</isis-adjacency>
  </isis-adjacency-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <isis-adjacency>—No documentation is available yet.

< *isis-adjacency-log* >

Usage

```
<isis-adjacency>
  <isis-adjacency-log>
    <adjacency-when>adjacency-when</adjacency-when>
    <adjacency-state>adjacency-state</adjacency-state>
    <adjacency-event>adjacency-event</adjacency-event>
  </isis-adjacency-log>
</isis-adjacency>
```

Description Entry describing adjacency transition.

Contents <adjacency-event>—Event which triggered the transition.

<adjacency-state>—State of the adjacency.

<adjacency-when>—Time at which the transition occurred.

< *isis-database* >

Usage

```
<isis-database-information>
  <isis-database>
    <level>level</level>
    <isis-database-entry>...</isis-database-entry>
    <lsp-count>lsp-count</lsp-count>
  </isis-database>
</isis-database-information>
```

Description No documentation is available yet.

Contents <isis-database-entry>—No documentation is available yet.

<level>—No documentation is available yet.

<lsp-count>—No documentation is available yet.

< *isis-database-entry* >

Usage

```
<isis-database>
  <isis-database-entry>
    <lsp-id>lsp-id</lsp-id>
    <sequence-number>sequence-number</sequence-number>
    <checksum>checksum</checksum>
    <remaining-lifetime>remaining-lifetime</remaining-lifetime>
    <lsp-attributes>lsp-attributes</lsp-attributes>
    <isis-neighbor>...</isis-neighbor>
    <isis-prefix>...</isis-prefix>
    <isis-header>...</isis-header>
    <isis-packet>...</isis-packet>
    <lsp-stub/>
    <isis-tlv>...</isis-tlv>
    <transmission-status>...</transmission-status>
  </isis-database-entry>
</isis-database>
```

Description No documentation is available yet.

Contents <checksum>—No documentation is available yet.

<isis-header>—No documentation is available yet.

<isis-neighbor>—No documentation is available yet.

<isis-packet>—No documentation is available yet.

<isis-prefix>—No documentation is available yet.

<isis-tlv>—No documentation is available yet.

<lsp-attributes>—No documentation is available yet.

<lsp-id>—LSP ID or source port for some sender. It is unique to every sender or LSP.

<lsp-stub>—No documentation is available yet.

<remaining-lifetime>—No documentation is available yet.

<sequence-number>—No documentation is available yet.

<transmission-status>—No documentation is available yet.

< *isis-database-information* >

Usage

```
<rpc-reply>
  <isis-database-information>
    <isis-database>...</isis-database>
  </isis-database-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <isis-database>—No documentation is available yet.

< *isis-header* >

Usage

```
<isis-database-entry>
  <isis-header>
    <lsp-id>lsp-id</lsp-id>
    <pdu-length>pdu-length</pdu-length>
    <allocated-length>allocated-length</allocated-length>
    <router-id>router-id</router-id>
    <remaining-lifetime>remaining-lifetime</remaining-lifetime>
    <level>level</level>
    <interface-index>interface-index</interface-index>
    <estimated-free-bytes>estimated-free-bytes</estimated-free-bytes>
    <actual-free-bytes>actual-free-bytes</actual-free-bytes>
    <lsdb-timer-type>lsdb-timer-type</lsdb-timer-type>
    <lsdb-expiration-time>lsdb-expiration-time</lsdb-expiration-time>
    <needs-rebuild/>
    <protocol>protocol</protocol>
  </isis-header>
</isis-database-entry>
```

Description No documentation is available yet.

Contents

<actual-free-bytes>—No documentation is available yet.

<allocated-length>—No documentation is available yet.

<estimated-free-bytes>—No documentation is available yet.

<interface-index>—No documentation is available yet.

<level>—No documentation is available yet.

<lsdb-expiration-time>—No documentation is available yet.

<lsdb-timer-type>—No documentation is available yet.

<lsp-id>—LSP ID or source port for some sender. It is unique to every sender or LSP.

<needs-rebuild>—No documentation is available yet.

<pdu-length>—No documentation is available yet.

<protocol>—No documentation is available yet.

<remaining-lifetime>—No documentation is available yet.

<router-id>—No documentation is available yet.

< *isis-hostname* >

Usage

```
<isis-hostname-information>
  <isis-hostname>
    <system-id>system-id</system-id>
    <system-name>system-name</system-name>
    <isis-hostname-type>isis-hostname-type</isis-hostname-type>
  </isis-hostname>
</isis-hostname-information>
```

Description An entry in the system-ID-to-hostname mapping table.

Contents <isis-hostname-type>—Type of system-ID-to-hostname mapping.

<system-id>—The 6-octet ISO system ID for a system.

<system-name>—The hostname for a system.

< *isis-hostname-information* >

Usage

```
<rpc-reply>
  <isis-hostname-information>
    <isis-hostname>...</isis-hostname>
  </isis-hostname-information>
</rpc-reply>
```

Description The system-ID-to-hostname mapping table.

Contents <isis-hostname>—An entry in the system-ID-to-hostname mapping table.

< *isis-interface* >

Usage

```
<isis-interface-information>
  <isis-interface>
    <interface-name>interface-name</interface-name>
    <circuit-type>circuit-type</circuit-type>
    <circuit-id>circuit-id</circuit-id>
    <isis-interface-state-one>isis-interface-state-one</isis-interface-state-one>
    <isis-interface-state-two>isis-interface-state-two</isis-interface-state-two>
    <interface-disabled-flag/>
    <dr-id-one>dr-id-one</dr-id-one>
    <dr-id-two>dr-id-two</dr-id-two>
    <metric-one>metric-one</metric-one>
    <metric-two>metric-two</metric-two>
    <interface-index>interface-index</interface-index>
    <interface-state-value>interface-state-value</interface-state-value>
    <lsp-interval>lsp-interval</lsp-interval>
    <csnp-interval>csnp-interval</csnp-interval>
    <system-name>system-name</system-name>
    <mesh-group>mesh-group</mesh-group>
    <interface-level-data>...</interface-level-data>
  </isis-interface>
</isis-interface-information>
```

Description No documentation is available yet.

Contents <circuit-id>—No documentation is available yet.

<circuit-type>—No documentation is available yet.

<csnp-interval>—No documentation is available yet.

<dr-id-one>—No documentation is available yet.

<dr-id-two>—No documentation is available yet.

<interface-disabled-flag>—No documentation is available yet.

<interface-index>—No documentation is available yet.

<interface-level-data>—No documentation is available yet.

<interface-name>—No documentation is available yet.

<interface-state-value>—No documentation is available yet.

<isis-interface-state-one>—No documentation is available yet.

<isis-interface-state-two>—No documentation is available yet.

<lsp-interval>—No documentation is available yet.

<mesh-group>—No documentation is available yet.

<metric-one>—No documentation is available yet.

<metric-two>—No documentation is available yet.

<system-name>—The hostname for a system.

< isis-interface-information >

Usage

```
<rpc-reply>
  <isis-interface-information>
    <isis-interface>...</isis-interface>
  </isis-interface-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <isis-interface>—No documentation is available yet.

< *isis-neighbor* >

Usage

```
<isis-database-entry>
  <isis-neighbor>
    <isis-topology-id>isis-topology-id</isis-topology-id>
    <is-neighbor-id>is-neighbor-id</is-neighbor-id>
    <metric>metric</metric>
    <reachability-delay/>
    <reachability-expense/>
    <reachability-error/>
  </isis-neighbor>
</isis-database-entry>
```

Description No documentation is available yet.

Contents <is-neighbor-id>—No documentation is available yet.

<isis-topology-id>—No documentation is available yet.

<metric>—No documentation is available yet.

<reachability-delay>—No documentation is available yet.

<reachability-error>—No documentation is available yet.

<reachability-expense>—No documentation is available yet.

< *isis-packet* >

Usage

```
<isis-database-entry>
  <isis-packet>
    <lsp-id>lsp-id</lsp-id>
    <pdu-length>pdu-length</pdu-length>
    <pdu-lifetime>pdu-lifetime</pdu-lifetime>
    <checksum>checksum</checksum>
    <sequence-number>sequence-number</sequence-number>
    <lsp-attributes>lsp-attributes</lsp-attributes>
    <nlp-id>nlp-id</nlp-id>
    <mtid>mtid</mtid>
    <lsp-length>lsp-length</lsp-length>
    <pdu-version>pdu-version</pdu-version>
    <system-id-length>system-id-length</system-id-length>
    <isis-packet-type>isis-packet-type</isis-packet-type>
    <packet-version>packet-version</packet-version>
    <maximum-area>maximum-area</maximum-area>
  </isis-packet>
</isis-database-entry>
```

Description No documentation is available yet.

Contents <checksum>—No documentation is available yet.

<isis-packet-type>—No documentation is available yet.

<lsp-attributes>—No documentation is available yet.

<lsp-id>—LSP ID or source port for some sender. It is unique to every sender or LSP.

<lsp-length>—No documentation is available yet.

<maximum-area>—No documentation is available yet.

<mtid>—No documentation is available yet.

<nlp-id>—No documentation is available yet.

<packet-version>—No documentation is available yet.

<pdu-length>—No documentation is available yet.

<pdu-lifetime>—No documentation is available yet.

<pdu-version>—No documentation is available yet.

<sequence-number>—No documentation is available yet.

<system-id-length>—No documentation is available yet.

< *isis-prefix* >

Usage

```
<isis-database-entry>
  <isis-prefix>
    <protocol-name>protocol-name</protocol-name>
    <isis-topology-id>isis-topology-id</isis-topology-id>
    <address-prefix>address-prefix</address-prefix>
    <metric>metric</metric>
    <prefix-flag>prefix-flag</prefix-flag>
    <reachability-delay/>
    <reachability-expense/>
    <reachability-error/>
  </isis-prefix>
</isis-database-entry>
```

Description No documentation is available yet.

Contents <address-prefix>—No documentation is available yet.

<isis-topology-id>—No documentation is available yet.

<metric>—No documentation is available yet.

<prefix-flag>—No documentation is available yet.

<protocol-name>—No documentation is available yet.

<reachability-delay>—No documentation is available yet.

<reachability-error>—No documentation is available yet.

<reachability-expense>—No documentation is available yet.

< *isis-prefix-subtlv* >

Usage

```
<isis-tlv | ipv6-reachability-tlv | ip-prefix-tlv>
  <isis-prefix-subtlv>
    <isis-prefix-tag>...</isis-prefix-tag>
  </isis-prefix-subtlv>
</isis-tlv | ipv6-reachability-tlv | ip-prefix-tlv>
```

Description No documentation is available yet.

Contents <isis-prefix-tag>—No documentation is available yet.

< *isis-prefix-tag* >

Usage

```
<isis-prefix-subtlv>
  <isis-prefix-tag>
    <isis-prefix-tag-index>isis-prefix-tag-index</isis-prefix-tag-index>
    <isis-prefix-tag-value>isis-prefix-tag-value</isis-prefix-tag-value>
  </isis-prefix-tag>
</isis-prefix-subtlv>
```

Description No documentation is available yet.

Contents <isis-prefix-tag-index>—No documentation is available yet.

<isis-prefix-tag-value>—No documentation is available yet.

< *isis-reachability-subtlv* >

Usage

```
<isis-tlv>
  <isis-reachability-subtlv>
    <isis-subtlv-type>isis-subtlv-type</isis-subtlv-type>
    <subtlv-length>subtlv-length</subtlv-length>
    <max-bandwidth>max-bandwidth</max-bandwidth>
    <max-reserve-bandwidth>max-reserve-bandwidth</max-reserve-bandwidth>
    <current-bandwidth-header/>
    <current-reserve-bandwidth>current-reserve-bandwidth</current-reserve-bandwidth>
    <admin-groups>...</admin-groups>
    <bandwidth-priority>bandwidth-priority</bandwidth-priority>
    <address>address</address>
    <neighbor-prefix>neighbor-prefix</neighbor-prefix>
    <address-prefix>address-prefix</address-prefix>
    <prefix-err-message/>
    <te-metric>te-metric</te-metric>
  </isis-reachability-subtlv>
</isis-tlv>
```

Description No documentation is available yet.

Contents <address>—No documentation is available yet.

<address-prefix>—No documentation is available yet.

<admin-groups>—No documentation is available yet.

<bandwidth-priority>—No documentation is available yet.

<current-bandwidth-header>—No documentation is available yet.

<current-reserve-bandwidth>—No documentation is available yet.

<isis-subtlv-type>—No documentation is available yet.

<max-bandwidth>—No documentation is available yet.

<max-reserve-bandwidth>—No documentation is available yet.

<neighbor-prefix>—No documentation is available yet.

<prefix-err-message>—No documentation is available yet.

<subtlv-length>—No documentation is available yet.

<te-metric>—No documentation is available yet.

< *isis-route* >

Usage

```
<isis-routing-table>
  <isis-route>
    <address-prefix>address-prefix</address-prefix>
    <level>level</level>
    <route-version>route-version</route-version>
    <metric>metric</metric>
    <metric-type>metric-type</metric-type>
    <interface-name>interface-name</interface-name>
    <isis-next-hop>isis-next-hop</isis-next-hop>
  </isis-route>
</isis-routing-table>
```

Description No documentation is available yet.

Contents <address-prefix>—No documentation is available yet.

<interface-name>—No documentation is available yet.

<isis-next-hop>—No documentation is available yet.

<level>—No documentation is available yet.

<metric>—No documentation is available yet.

<metric-type>—No documentation is available yet.

<route-version>—No documentation is available yet.

< *isis-route-information* >

Usage

```
<rpc-reply>
  <isis-route-information>
    <isis-routing-table>...</isis-routing-table>
  </isis-route-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <isis-routing-table>—No documentation is available yet.

< *isis-routing-table* >

Usage

```
<isis-route-information>
  <isis-routing-table>
    <isis-topology-id>isis-topology-id</isis-topology-id>
    <level-one-version>level-one-version</level-one-version>
    <level-two-version>level-two-version</level-two-version>
    <isis-route>...</isis-route>
  </isis-routing-table>
</isis-route-information>
```

Description No documentation is available yet.

Contents <isis-route>—No documentation is available yet.

<isis-topology-id>—No documentation is available yet.

<level-one-version>—No documentation is available yet.

<level-two-version>—No documentation is available yet.

< *isis-spf* >

Usage

```
<isis-spf-information>
  <isis-spf>
    <isis-spf-results-header>...</isis-spf-results-header>
    <isis-spf-result>...</isis-spf-result>
    <node-count>node-count</node-count>
    <isis-spf-log-header>...</isis-spf-log-header>
    <isis-spf-log>...</isis-spf-log>
  </isis-spf>
</isis-spf-information>
```

Description No documentation is available yet.

Contents <isis-spf-log>—No documentation is available yet.

<isis-spf-log-header>—No documentation is available yet.

<isis-spf-result>—No documentation is available yet.

<isis-spf-results-header>—No documentation is available yet.

<node-count>—No documentation is available yet.

< isis-spf-information >

Usage

```
<rpc-reply>
  <isis-spf-information>
    <isis-spf>...</isis-spf>
  </isis-spf-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <isis-spf>—No documentation is available yet.

< isis-spf-log >

Usage

```
<isis-spf>
  <isis-spf-log>
    <start-time>start-time</start-time>
    <elapsed-time>elapsed-time</elapsed-time>
    <spf-trigger-count>spf-trigger-count</spf-trigger-count>
    <logging-reason>logging-reason</logging-reason>
    <lsp-name>lsp-name</lsp-name>
    <system-name>system-name</system-name>
    <interface-name>interface-name</interface-name>
  </isis-spf-log>
</isis-spf>
```

Description No documentation is available yet.

Contents <elapsed-time>—Time this adjacency or session has been up or down.

<interface-name>—No documentation is available yet.

<logging-reason>—No documentation is available yet.

<lsp-name>—Tunneled into an RSVP LSP.

<spf-trigger-count>—No documentation is available yet.

<start-time>—No documentation is available yet.

<system-name>—The hostname for a system.

< *isis-spf-log-header* >

Usage

```
<isis-spf>
  <isis-spf-log-header>
    <level>level</level>
    <isis-topology-id>isis-topology-id</isis-topology-id>
  </isis-spf-log-header>
</isis-spf>
```

Description No documentation is available yet.

Contents <isis-topology-id>—No documentation is available yet.

<level>—No documentation is available yet.

< *isis-spf-result* >

Usage

```
<isis-spf>
  <isis-spf-result>
    <node-id>node-id</node-id>
    <disconnected/>
    <metric>metric</metric>
    <no-first-fragment/>
    <next-hop-element>...</next-hop-element>
    <prefix-element>...</prefix-element>
  </isis-spf-result>
</isis-spf>
```

Description No documentation is available yet.

Contents <disconnected>—No documentation is available yet.

<metric>—No documentation is available yet.

<next-hop-element>—No documentation is available yet.

<no-first-fragment>—No documentation is available yet.

<node-id>—No documentation is available yet.

<prefix-element>—No documentation is available yet.

< *isis-spf-results-header* >

Usage

```
<isis-spf>
  <isis-spf-results-header>
    <level>level</level>
    <isis-topology-id>isis-topology-id</isis-topology-id>
  </isis-spf-results-header>
</isis-spf>
```

Description No documentation is available yet.

Contents <isis-topology-id>—No documentation is available yet.

<level>—No documentation is available yet.

< *isis-statistics* >

Usage

```
<isis-statistics-information>
  <isis-statistics>
    <system-name>system-name</system-name>
    <isis-pdu-type>isis-pdu-type</isis-pdu-type>
    <packets-received>packets-received</packets-received>
    <packets-processed>packets-processed</packets-processed>
    <packets-dropped>packets-dropped</packets-dropped>
    <packets-sent>packets-sent</packets-sent>
    <packets-retransmitted>packets-retransmitted</packets-retransmitted>
    <totals-information>...</totals-information>
    <snp-queue-length>snp-queue-length</snp-queue-length>
    <snp-queue-drops>snp-queue-drops</snp-queue-drops>
    <lsp-queue-length>lsp-queue-length</lsp-queue-length>
    <lsp-queue-drops>lsp-queue-drops</lsp-queue-drops>
    <spf-runs>spf-runs</spf-runs>
    <fragments-rebuilt>fragments-rebuilt</fragments-rebuilt>
    <lsps-regenerated>lsps-regenerated</lsps-regenerated>
    <purges-initiated>purges-initiated</purges-initiated>
  </isis-statistics>
</isis-statistics-information>
```

Description No documentation is available yet.

Contents <fragments-rebuilt>—No documentation is available yet.

<isis-pdu-type>—No documentation is available yet.

<lsp-queue-drops>—No documentation is available yet.

<lsp-queue-length>—No documentation is available yet.

<lsps-regenerated>—No documentation is available yet.

<packets-dropped>—No documentation is available yet.

<packets-processed>—No documentation is available yet.

<packets-received>—No documentation is available yet.

<packets-retransmitted>—No documentation is available yet.

<packets-sent>—No documentation is available yet.

<purges-initiated>—No documentation is available yet.

<snp-queue-drops>—No documentation is available yet.

<snp-queue-length>—No documentation is available yet.

<spf-runs>—No documentation is available yet.

<system-name>—The hostname for a system.

<totals-information>—No documentation is available yet.

< *isis-statistics-information* >

Usage

```
<rpc-reply>
  <isis-statistics-information>
    <isis-statistics>...</isis-statistics>
  </isis-statistics-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <isis-statistics>—No documentation is available yet.

< *isis-tlv* >

Usage

```
<isis-database-entry>
  <isis-tlv>
    <isis-tlv-overhead>...</isis-tlv-overhead>
    <area-address-tlv>...</area-address-tlv>
    <protocols-tlv>...</protocols-tlv>
    <mt-tlv>...</mt-tlv>
    <hostname-tlv>...</hostname-tlv>
    <ipaddress-tlv>...</ipaddress-tlv>
    <ipv6address-tlv>...</ipv6address-tlv>
    <router-id-tlv>...</router-id-tlv>
    <reachability-tlv>...</reachability-tlv>
    <isis-prefix-subtlv>...</isis-prefix-subtlv>
    <ipv6-reachability-tlv>...</ipv6-reachability-tlv>
    <isis-reachability-subtlv>...</isis-reachability-subtlv>
    <authentication-tlv>...</authentication-tlv>
    <idrp-tlv>...</idrp-tlv>
    <ip-prefix-tlv>...</ip-prefix-tlv>
    <unknown-tlv>...</unknown-tlv>
    <tlv-stragglers>...</tlv-stragglers>
  </isis-tlv>
</isis-database-entry>
```

Description No documentation is available yet.

Contents <area-address-tlv>—No documentation is available yet.

<authentication-tlv>—No documentation is available yet.

<hostname-tlv>—No documentation is available yet.

<idrp-tlv>—No documentation is available yet.

<ip-prefix-tlv>—No documentation is available yet.

<ipaddress-tlv>—No documentation is available yet.

<ipv6-reachability-tlv>—No documentation is available yet.

<ipv6address-tlv>—No documentation is available yet.

<isis-prefix-subtlv>—No documentation is available yet.

<isis-reachability-subtlv>—No documentation is available yet.

<isis-tlv-overhead>—No documentation is available yet.

<mt-tlv>—No documentation is available yet.

<protocols-tlv>—No documentation is available yet.

<reachability-tlv>—No documentation is available yet.

<router-id-tlv>—No documentation is available yet.

<tlv-stragglers>—No documentation is available yet.

<unknown-tlv>—No documentation is available yet.

< *isis-tlv-overhead* >

Usage

```
<isis-tlv>
  <isis-tlv-overhead>
    <isis-tlv-type>isis-tlv-type</isis-tlv-type>
    <tlv-length>tlv-length</tlv-length>
    <bytes-left>bytes-left</bytes-left>
  </isis-tlv-overhead>
</isis-tlv>
```

Description No documentation is available yet.

Contents <bytes-left>—No documentation is available yet.

<isis-tlv-type>—No documentation is available yet.

<tlv-length>—No documentation is available yet.

< *l2circuit-connection-information* >

Usage

```
<rpc-reply>
  <l2circuit-connection-information>
    <l2circuit-neighbor>...</l2circuit-neighbor>
  </l2circuit-connection-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <l2circuit-neighbor>—No documentation is available yet.

< *l2circuit-neighbor* >

Usage

```
<l2circuit-connection-information>
  <l2circuit-neighbor>
    <neighbor-address>neighbor-address</neighbor-address>
    <neighbor-display-error>neighbor-display-error</neighbor-display-error>
    <connection>...</connection>
  </l2circuit-neighbor>
</l2circuit-connection-information>
```

Description No documentation is available yet.

Contents <connection>—No documentation is available yet.

<neighbor-address>—IP address of this neighbor.

<neighbor-display-error>—No documentation is available yet.

< *l2vpn-connection-information* >

Usage

```
<rpc-reply>
  <l2vpn-connection-information>
    <instance>...</instance>
  </l2vpn-connection-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <instance>—No documentation is available yet.

< *label-block* >

Usage

```
<reference-site>
  <label-block>
    <label-block-offset>label-block-offset</label-block-offset>
    <label-block-range>label-block-range</label-block-range>
    <label-block-base>label-block-base</label-block-base>
    <label-block-status-vector>label-block-status-vector</label-block-status-vector>
  </label-block>
</reference-site>
```

Description No documentation is available yet.

Contents <label-block-base>—No documentation is available yet.

<label-block-offset>—No documentation is available yet.

<label-block-range>—No documentation is available yet.

<label-block-status-vector>—No documentation is available yet.

< *ldp-binding* >

Usage

```
<ldp-database>
  <ldp-binding>
    <ldp-label>ldp-label</ldp-label>
    <ldp-prefix>ldp-prefix</ldp-prefix>
    <ldp-binding-filtered/>
    <ldp-binding-stale/>
    <ldp-binding-state>ldp-binding-state</ldp-binding-state>
    <ldp-binding-queued/>
  </ldp-binding>
</ldp-database>
```

Description No documentation is available yet.

Contents <ldp-binding-filtered>—No documentation is available yet.

<ldp-binding-queued>—No documentation is available yet.

<ldp-binding-stale>—No documentation is available yet.

<ldp-binding-state>—No documentation is available yet.

<ldp-label>—No documentation is available yet.

<ldp-prefix>—No documentation is available yet.

< *ldp-database* >

Usage

```
<ldp-database-information>
  <ldp-database>
    <ldp-database-type>ldp-database-type</ldp-database-type>
    <ldp-session-id>ldp-session-id</ldp-session-id>
    <ldp-binding>...</ldp-binding>
  </ldp-database>
</ldp-database-information>
```

Description No documentation is available yet.

Contents <ldp-binding>—No documentation is available yet.

<ldp-database-type>—No documentation is available yet.

<ldp-session-id>—No documentation is available yet.

< *ldp-database-information* >

Usage

```
<rpc-reply>
  <ldp-database-information>
    <ldp-database>...</ldp-database>
  </ldp-database-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ldp-database>—No documentation is available yet.

< *ldp-event-statistics* >

Usage

```
<ldp-statistics>
  <ldp-event-statistics>
    <ldp-event-type>ldp-event-type</ldp-event-type>
    <ldp-event-count>ldp-event-count</ldp-event-count>
    <ldp-event-count-5seconds>ldp-event-count-5seconds</ldp-event-count-5seconds>
  </ldp-event-statistics>
</ldp-statistics>
```

Description No documentation is available yet.

Contents <ldp-event-count>—No documentation is available yet.

<ldp-event-count-5seconds>—No documentation is available yet.

<ldp-event-type>—No documentation is available yet.

< *ldp-interface* >

Usage

```
<ldp-interface-information>
  <ldp-interface>
    <interface-name>interface-name</interface-name>
    <ldp-label-space-id>ldp-label-space-id</ldp-label-space-id>
    <ldp-neighbor-count>ldp-neighbor-count</ldp-neighbor-count>
    <ldp-next-hello>ldp-next-hello</ldp-next-hello>
    <ldp-hello-interval>ldp-hello-interval</ldp-hello-interval>
    <ldp-holdtime>ldp-holdtime</ldp-holdtime>
    <ldp-transport-address>ldp-transport-address</ldp-transport-address>
    <ldp-interface-index>ldp-interface-index</ldp-interface-index>
    <ldp-block-time>ldp-block-time</ldp-block-time>
  </ldp-interface>
</ldp-interface-information>
```

Description No documentation is available yet.

Contents <interface-name>—No documentation is available yet.

<ldp-block-time>—No documentation is available yet.

<ldp-hello-interval>—No documentation is available yet.

<ldp-holdtime>—No documentation is available yet.

<ldp-interface-index>—No documentation is available yet.

<ldp-label-space-id>—No documentation is available yet.

<ldp-neighbor-count>—No documentation is available yet.

<ldp-next-hello>—No documentation is available yet.

<ldp-transport-address>—No documentation is available yet.

< *ldp-interface-information* >

Usage

```
<rpc-reply>
  <ldp-interface-information>
    <ldp-interface>...</ldp-interface>
  </ldp-interface-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ldp-interface>—No documentation is available yet.

< *ldp-message-statistics* >

Usage

```
<ldp-statistics>
  <ldp-message-statistics>
    <ldp-message-type>ldp-message-type</ldp-message-type>
    <ldp-messages-sent>ldp-messages-sent</ldp-messages-sent>
    <ldp-messages-received>ldp-messages-received</ldp-messages-received>
    <ldp-messages-sent-5seconds>messages-sent</ldp-messages-sent-5seconds>
    <ldp-messages-received-5seconds>received</ldp-messages-received-5seconds>
  </ldp-message-statistics>
</ldp-statistics>
```

Description No documentation is available yet.

Contents <ldp-message-type>—No documentation is available yet.

<ldp-messages-received>—No documentation is available yet.

<ldp-messages-received-5seconds>—No documentation is available yet.

<ldp-messages-sent>—No documentation is available yet.

<ldp-messages-sent-5seconds>—No documentation is available yet.

< *ldp-neighbor* >

Usage

```
<ldp-neighbor-information>
  <ldp-neighbor>
    <ldp-neighbor-address>ldp-neighbor-address</ldp-neighbor-address>
    <interface-name>interface-name</interface-name>
    <ldp-label-space-id>ldp-label-space-id</ldp-label-space-id>
    <ldp-remaining-time>ldp-remaining-time</ldp-remaining-time>
    <ldp-transport-address>ldp-transport-address</ldp-transport-address>
    <ldp-config-sequence>ldp-config-sequence</ldp-config-sequence>
    <ldp-up-time>ldp-up-time</ldp-up-time>
    <ldp-reference-count>ldp-reference-count</ldp-reference-count>
    <ldp-holdtime>ldp-holdtime</ldp-holdtime>
  </ldp-neighbor>
</ldp-neighbor-information>
```

Description No documentation is available yet.

Contents <interface-name>—No documentation is available yet.

<ldp-config-sequence>—No documentation is available yet.

<ldp-holdtime>—No documentation is available yet.

<ldp-label-space-id>—No documentation is available yet.

<ldp-neighbor-address>—No documentation is available yet.

<ldp-reference-count>—No documentation is available yet.

<ldp-remaining-time>—No documentation is available yet.

<ldp-transport-address>—No documentation is available yet.

<ldp-up-time>—No documentation is available yet.

< *ldp-neighbor-information* >

Usage

```
<rpc-reply>
  <ldp-neighbor-information>
    <ldp-neighbor>...</ldp-neighbor>
  </ldp-neighbor-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ldp-neighbor>—No documentation is available yet.

< *ldp-nexthop* >

Usage

```
<ldp-route>
  <ldp-nexthop>
    <interface-name>interface-name</interface-name>
    <lsp-name>lsp-name</lsp-name>
    <interface-address>interface-address</interface-address>
    <ldp-session-id>ldp-session-id</ldp-session-id>
  </ldp-nexthop>
</ldp-route>
```

Description No documentation is available yet.

Contents <interface-address>—No documentation is available yet.

<interface-name>—No documentation is available yet.

<ldp-session-id>—No documentation is available yet.

<lsp-name>—Tunneled into an RSVP LSP.

< *ldp-path* >

Usage

```
<ldp-path-information>
  <ldp-path>
    <ldp-outlib-session>ldp-outlib-session</ldp-outlib-session>
    <ldp-outlib-label>ldp-outlib-label</ldp-outlib-label>
    <ldp-ingress-label/>
    <ldp-inlib-session>ldp-inlib-session</ldp-inlib-session>
    <ldp-inlib-label>ldp-inlib-label</ldp-inlib-label>
    <ldp-egress-label/>
    <ldp-path-route>...</ldp-path-route>
    <ldp-reference-count>ldp-reference-count</ldp-reference-count>
    <ldp-route-transit/>
    <ldp-global-label>ldp-global-label</ldp-global-label>
  </ldp-path>
</ldp-path-information>
```

Description No documentation is available yet.

Contents <ldp-egress-label>—No documentation is available yet.

<ldp-global-label>—No documentation is available yet.

<ldp-ingress-label>—No documentation is available yet.

<ldp-inlib-label>—No documentation is available yet.

<ldp-inlib-session>—No documentation is available yet.

<ldp-outlib-label>—No documentation is available yet.

<ldp-outlib-session>—No documentation is available yet.

<ldp-path-route>—No documentation is available yet.

<ldp-reference-count>—No documentation is available yet.

<ldp-route-transit>—No documentation is available yet.

< *ldp-path-information* >

Usage

```
<rpc-reply>
  <ldp-path-information>
    <ldp-path>...</ldp-path>
  </ldp-path-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ldp-path>—No documentation is available yet.

< *ldp-path-route* >

Usage

```
<ldp-path>
  <ldp-path-route>
    <ldp-prefix>ldp-prefix</ldp-prefix>
    <ldp-route-ingress/>
  </ldp-path-route>
</ldp-path>
```

Description No documentation is available yet.

Contents <ldp-prefix>—No documentation is available yet.

<ldp-route-ingress>—No documentation is available yet.

< *ldp-route* >

Usage

```
<ldp-route-information>
  <ldp-route>
    <ldp-prefix>ldp-prefix</ldp-prefix>
    <ldp-nexthop>...</ldp-nexthop>
    <ldp-label>ldp-label</ldp-label>
    <ldp-no-label/>
    <ldp-topology-entry>ldp-topology-entry</ldp-topology-entry>
  </ldp-route>
</ldp-route-information>
```

Description No documentation is available yet.

Contents <ldp-label>—No documentation is available yet.

<ldp-nexthop>—No documentation is available yet.

<ldp-no-label>—No documentation is available yet.

<ldp-prefix>—No documentation is available yet.

<ldp-topology-entry>—No documentation is available yet.

< ldp-route-information >

Usage

```
<rpc-reply>
  <ldp-route-information>
    <ldp-route>...</ldp-route>
  </ldp-route-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ldp-route>—No documentation is available yet.

< ldp-session >

Usage

```
<ldp-session-information>
  <ldp-session>
    <ldp-neighbor-address>ldp-neighbor-address</ldp-neighbor-address>
    <ldp-session-state>ldp-session-state</ldp-session-state>
    <ldp-connection-state>ldp-connection-state</ldp-connection-state>
    <ldp-remaining-time>ldp-remaining-time</ldp-remaining-time>
    <ldp-session-id>ldp-session-id</ldp-session-id>
    <ldp-retry-time>ldp-retry-time</ldp-retry-time>
    <ldp-keepalive-time>ldp-keepalive-time</ldp-keepalive-time>
    <ldp-session-role>ldp-session-role</ldp-session-role>
    <ldp-session-max-pdu>ldp-session-max-pdu</ldp-session-max-pdu>
    <ldp-holdtime>ldp-holdtime</ldp-holdtime>
    <ldp-neighbor-count>ldp-neighbor-count</ldp-neighbor-count>
    <ldp-keepalive-interval>ldp-keepalive-interval</ldp-keepalive-interval>
    <ldp-retry-interval>ldp-retry-interval</ldp-retry-interval>
    <ldp-local-address>ldp-local-address</ldp-local-address>
    <ldp-remote-address>ldp-remote-address</ldp-remote-address>
    <ldp-graceful-restart-state>ldp-graceful-restart-state</ldp-graceful-restart-state>
    <ldp-local-reconnect-time>ldp-local-reconnect-time</ldp-local-reconnect-time>
    <ldp-remote-reconnect-time>ldp-remote-reconnect-time</ldp-remote-reconnect-time>
    <ldp-restart-complete-time>ldp-restart-complete-time</ldp-restart-complete-time>
    <ldp-local-helper-mode>ldp-local-helper-mode</ldp-local-helper-mode>
    <ldp-remote-helper-mode>ldp-remote-helper-mode</ldp-remote-helper-mode>
    <ldp-graceful-restart-local>ldp-graceful-restart-local</ldp-graceful-restart-local>
    <ldp-graceful-restart-remote>ldp-graceful-restart-remote</ldp-graceful-restart-remote>
    <ldp-up-time>ldp-up-time</ldp-up-time>
    <ldp-session-address>...</ldp-session-address>
    <ldp-session-deleted/>
    <ldp-session-connect-pending/>
    <ldp-session-close-pending/>
    <ldp-session-queue-depth>ldp-session-queue-depth</ldp-session-queue-depth>
    <ldp-session-read-pending/>
    <ldp-session-write-pending/>
    <ldp-session-receive-buffer-bytes>receive-buffer</ldp-session-receive-buffer-bytes>
    <ldp-session-transmit-buffer-bytes>transmit-buffer</ldp-session-transmit-buffer-bytes>
    <ldp-session-no-connection/>
    <ldp-session-authentication>ldp-session-authentication</ldp-session-authentication>
  </ldp-session>
</ldp-session-information>
```

Description No documentation is available yet.

Contents <ldp-connection-state>—No documentation is available yet.

<ldp-graceful-restart-local>—No documentation is available yet.

<ldp-graceful-restart-remote>—No documentation is available yet.

<ldp-graceful-restart-state>—No documentation is available yet.

<ldp-holdtime>—No documentation is available yet.

<ldp-keepalive-interval>—No documentation is available yet.

<ldp-keepalive-time>—No documentation is available yet.

<ldp-local-address>—No documentation is available yet.

<ldp-local-helper-mode>—No documentation is available yet.

<ldp-local-reconnect-time>—No documentation is available yet.

<ldp-neighbor-address>—No documentation is available yet.

<ldp-neighbor-count>—No documentation is available yet.

<ldp-remaining-time>—No documentation is available yet.

<ldp-remote-address>—No documentation is available yet.

<ldp-remote-helper-mode>—No documentation is available yet.

<ldp-remote-reconnect-time>—No documentation is available yet.

<ldp-restart-complete-time>—No documentation is available yet.

<ldp-retry-interval>—No documentation is available yet.

<ldp-retry-time>—No documentation is available yet.

<ldp-session-address>—No documentation is available yet.

<ldp-session-authentication>—No documentation is available yet.

<ldp-session-close-pending>—No documentation is available yet.

<ldp-session-connect-pending>—No documentation is available yet.

<ldp-session-deleted>—No documentation is available yet.

<ldp-session-id>—No documentation is available yet.

<ldp-session-max-pdu>—No documentation is available yet.

<ldp-session-no-connection>—No documentation is available yet.

<ldp-session-queue-depth>—No documentation is available yet.

<ldp-session-read-pending>—No documentation is available yet.

<ldp-session-receive-buffer-bytes>—No documentation is available yet.

<ldp-session-role>—No documentation is available yet.

<ldp-session-state>—No documentation is available yet.

<ldp-session-transmit-buffer-bytes>—No documentation is available yet.

<ldp-session-write-pending>—No documentation is available yet.

<ldp-up-time>—No documentation is available yet.

< ldp-session-address >

Usage

```
<ldp-session>
  <ldp-session-address>
    <interface-address>interface-address</interface-address>
    <interface-name>interface-name</interface-name>
    <ldp-session-address-stale/>
  </ldp-session-address>
</ldp-session>
```

Description No documentation is available yet.

Contents <interface-address>—No documentation is available yet.

<interface-name>—No documentation is available yet.

<ldp-session-address-stale>—No documentation is available yet.

< ldp-session-information >

Usage

```
<rpc-reply>
  <ldp-session-information>
    <ldp-session>...</ldp-session>
  </ldp-session-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ldp-session>—No documentation is available yet.

< *ldp-statistics* >

Usage

```
<ldp-statistics-information>
  <ldp-statistics>
    <ldp-message-statistics>...</ldp-message-statistics>
    <ldp-event-statistics>...</ldp-event-statistics>
  </ldp-statistics>
</ldp-statistics-information>
```

Description No documentation is available yet.

Contents <ldp-event-statistics>—No documentation is available yet.

<ldp-message-statistics>—No documentation is available yet.

< *ldp-statistics-information* >

Usage

```
<rpc-reply>
  <ldp-statistics-information>
    <ldp-statistics>...</ldp-statistics>
  </ldp-statistics-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ldp-statistics>—No documentation is available yet.

< *ldp-traffic-statistics* >

Usage

```
<ldp-traffic-statistics-information>
  <ldp-traffic-statistics>
    <ldp-prefix>ldp-prefix</ldp-prefix>
    <ldp-traffic-type>ldp-traffic-type</ldp-traffic-type>
    <ldp-traffic-error>ldp-traffic-error</ldp-traffic-error>
    <ldp-traffic-statistics-packet-count>packet-count</ldp-traffic-statistics-packet-count>
    <ldp-traffic-statistics-byte-count>byte-count</ldp-traffic-statistics-byte-count>
    <ldp-traffic-multiple-fec>ldp-traffic-multiple-fec</ldp-traffic-multiple-fec>
  </ldp-traffic-statistics>
</ldp-traffic-statistics-information>
```

Description No documentation is available yet.

Contents <ldp-prefix>—No documentation is available yet.

<ldp-traffic-error>—The error encountered when querying the statistics.

<ldp-traffic-multiple-fec>—Multiple FECs sharing the same label.

<ldp-traffic-statistics-byte-count>—Number of bytes switched for this FEC.

<ldp-traffic-statistics-packet-count>—Number of packets switched for this FEC.

<ldp-traffic-type>—Type of traffic: ingress or transit.

< ldp-traffic-statistics-error >

Usage

```
<ldp-traffic-statistics-information>
  <ldp-traffic-statistics-error>
    <ldp-traffic-error>ldp-traffic-error</ldp-traffic-error>
  </ldp-traffic-statistics-error>
</ldp-traffic-statistics-information>
```

Description No documentation is available yet.

Contents <ldp-traffic-error>—The error encountered when querying the statistics.

< ldp-traffic-statistics-information >

Usage

```
<rpc-reply>
  <ldp-traffic-statistics-information>
    <ldp-traffic-statistics>...</ldp-traffic-statistics>
    <ldp-traffic-statistics-error>...</ldp-traffic-statistics-error>
  </ldp-traffic-statistics-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ldp-traffic-statistics>—No documentation is available yet.

<ldp-traffic-statistics-error>—No documentation is available yet.

< link-subtlv >

Usage

```
<ospf-opaque-area-lsa>
  <link-subtlv>
    <tlv-type-name>tlv-type-name</tlv-type-name>
    <tlv-type-value>tlv-type-value</tlv-type-value>
    <tlv-length>tlv-length</tlv-length>
    <bytes-left>bytes-left</bytes-left>
    <formatted-tlv-data>formatted-tlv-data</formatted-tlv-data>
  </link-subtlv>
</ospf-opaque-area-lsa>
```

Description No documentation is available yet.

Contents <bytes-left>—No documentation is available yet.

<formatted-tlv-data>—No documentation is available yet.

<tlv-length>—No documentation is available yet.

<tlv-type-name>—No documentation is available yet.

<tlv-type-value>—No documentation is available yet.

< *lm-information* >

Usage

```
<rpc-reply>
  <lm-information>
    <lm-peer-root-information>...</lm-peer-root-information>
    <lm-te-link-root-information>...</lm-te-link-root-information>
  </lm-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <lm-peer-root-information>—No documentation is available yet.

<lm-te-link-root-information>—No documentation is available yet.

< *lm-peer-information* >

Usage

```
<lm-peer-root-information>
  <lm-peer-information>
    <lm-source>lm-source</lm-source>
    <lm-sys-id>lm-sys-id</lm-sys-id>
    <lm-peer-name>lm-peer-name</lm-peer-name>
    <lm-state>lm-state</lm-state>
    <lm-peer-control-address>lm-peer-control-address</lm-peer-control-address>
    <lm-peer-control-channel>lm-peer-control-channel</lm-peer-control-channel>
    <lm-peer-keepalive>lm-peer-keepalive</lm-peer-keepalive>
    <lm-peer-te-links>...</lm-peer-te-links>
  </lm-peer-information>
</lm-peer-root-information>
```

Description No documentation is available yet.

Contents <lm-peer-control-address>—Peer control address.

<lm-peer-control-channel>—Peer active control interface.

<lm-peer-keepalive>—Peer uses LMP keepalives.

<lm-peer-name>—Name of object.

<lm-peer-te-links>—Link management peer TE links.

<lm-source>—Source of information.

<lm-state>—State of object.

<lm-sys-id>—System identifier of object.

< *lm-peer-root-information* >

Usage

```
<lm-information>
  <lm-peer-root-information>
    <lm-peer-information>...</lm-peer-information>
  </lm-peer-root-information>
</lm-information>
```

Description No documentation is available yet.

Contents <lm-peer-information>—No documentation is available yet.

< *lm-peer-te-links* >

Usage

```
<lm-peer-information>
  <lm-peer-te-links>
    <lm-peer-te-link>lm-peer-te-link</lm-peer-te-link>
  </lm-peer-te-links>
</lm-peer-information>
```

Description Link management peer TE links.

Contents <lm-peer-te-link>—TE link name contained in peer.

< *lm-te-link-information* >

Usage

```
<lm-te-link-root-information>
  <lm-te-link-information>
    <lm-te-link-name>lm-te-link-name</lm-te-link-name>
    <lm-local-id>lm-local-id</lm-local-id>
    <lm-remote-id>lm-remote-id</lm-remote-id>
    <lm-state>lm-state</lm-state>
    <lm-local-address>lm-local-address</lm-local-address>
    <lm-remote-address>lm-remote-address</lm-remote-address>
    <lm-encoding>lm-encoding</lm-encoding>
    <lm-min-bandwidth>lm-min-bandwidth</lm-min-bandwidth>
    <lm-max-bandwidth>lm-max-bandwidth</lm-max-bandwidth>
    <lm-total-bandwidth>lm-total-bandwidth</lm-total-bandwidth>
    <lm-avail-bandwidth>lm-avail-bandwidth</lm-avail-bandwidth>
    <lm-te-link-resources>...</lm-te-link-resources>
  </lm-te-link-information>
</lm-te-link-root-information>
```

Description No documentation is available yet.

Contents <lm-avail-bandwidth>—Unallocated bandwidth on this TE link.

<lm-encoding>—TE-Link encoding type.

<lm-local-address>—Local address of object.

<lm-local-id>—Local identifier of object.

<lm-max-bandwidth>—Maximum reservable bandwidth per allocation.

<lm-min-bandwidth>—Minimum reservable bandwidth per allocation.

<lm-remote-address>—Remote address of object.

<lm-remote-id>—Remote identifier of object.

<lm-state>—State of object.

<lm-te-link-name>—Name of object.

<lm-te-link-resources>—No documentation is available yet.

<lm-total-bandwidth>—Total bandwidth available on this TE link.

< *lm-te-link-resources* >

Usage

```
<lm-te-link-information>
  <lm-te-link-resources>
    <lm-res-name>lm-res-name</lm-res-name>
    <lm-res-local-id>lm-res-local-id</lm-res-local-id>
    <lm-res-remote-id>lm-res-remote-id</lm-res-remote-id>
    <lm-res-local-addr>lm-res-local-addr</lm-res-local-addr>
    <lm-res-remote-addr>lm-res-remote-addr</lm-res-remote-addr>
    <lm-res-bandwidth>lm-res-bandwidth</lm-res-bandwidth>
    <lm-res-in-use>lm-res-in-use</lm-res-in-use>
  </lm-te-link-resources>
</lm-te-link-information>
```

Description No documentation is available yet.

Contents <lm-res-bandwidth>—Resource bandwidth.

<lm-res-in-use>—Resource allocation status.

<lm-res-local-addr>—Resource local address.

<lm-res-local-id>—Resource local identifier.

<lm-res-name>—Resource name or name of physical interface.

<lm-res-remote-addr>—Resource remote address.

<lm-res-remote-id>—Resource remote identifier.

< *lm-te-link-root-information* >

Usage

```
<lm-information>
  <lm-te-link-root-information>
    <lm-te-link-information>...</lm-te-link-information>
  </lm-te-link-root-information>
</lm-information>
```

Description No documentation is available yet.

Contents <lm-te-link-information>—No documentation is available yet.

< *local-interface* >

Usage

```
<connection>
  <local-interface>
    <interface-name>interface-name</interface-name>
    <interface-status>interface-status</interface-status>
    <interface-encapsulation>interface-encapsulation</interface-encapsulation>
  </local-interface>
</connection>
```

Description No documentation is available yet.

Contents <interface-encapsulation>—No documentation is available yet.

<interface-name>—No documentation is available yet.

<interface-status>—No documentation is available yet.

< *log-element* >

Usage

```
<ospf-log-instance | ospf-log-maximum-length | ospf-log-events>
  <log-element>
    <timestamp>timestamp</timestamp>
    <ospf-log-type>ospf-log-type</ospf-log-type>
    <elapsed-time>elapsed-time</elapsed-time>
  </log-element>
</ospf-log-instance | ospf-log-maximum-length | ospf-log-events>
```

Description No documentation is available yet.

Contents <elapsed-time>—Time this adjacency or session has been up or down.

<ospf-log-type>—No documentation is available yet.

<timestamp>—Time when something occurs.

< *message-statistics* >

Usage

```
<rsvp-statistics-information | rsvp-interface>
  <message-statistics>
    <rsvp-message>rsvp-message</rsvp-message>
    <messages-sent>messages-sent</messages-sent>
    <messages-received>messages-received</messages-received>
    <messages-sent-5seconds>messages-sent-5seconds</messages-sent-5seconds>
    <messages-received-5seconds>messages-received</messages-received-5seconds>
  </message-statistics>
</rsvp-statistics-information | rsvp-interface>
```

Description Statistics per RSVP message type.

Contents <messages-received>—Total number of messages received.

<messages-received-5seconds>—Number of messages received in the last 5 seconds.

<messages-sent>—Total number of messages sent.

<messages-sent-5seconds>—Number of messages sent in the last 5 seconds.

<rsvp-message>—No documentation is available yet.

< *mpls-admin-group* >

Usage

```
<mpls-admin-group-information>
  <mpls-admin-group>
    <admin-group-name>admin-group-name</admin-group-name>
    <index>index</index>
  </mpls-admin-group>
</mpls-admin-group-information>
```

Description No documentation is available yet.

Contents <admin-group-name>—Name of the admin group.

<index>—No documentation is available yet.

< *mpls-admin-group-information* >

Usage

```
<rpc-reply>
  <mpls-admin-group-information>
    <mpls-admin-group>...</mpls-admin-group>
  </mpls-admin-group-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <mpls-admin-group>—No documentation is available yet.

< *mpls-cspf* >

Usage

```
<mpls-cspf-information>
  <mpls-cspf>
    <cspf-queue>...</cspf-queue>
    <cspf-paths>...</cspf-paths>
    <cspf-timing>...</cspf-timing>
  </mpls-cspf>
</mpls-cspf-information>
```

Description No documentation is available yet.

Contents <cspf-paths>—CSPF path computations statistics.

<cspf-queue>—CSPF queue statistics.

<cspf-timing>—CSPF timing statistics.

< *mpls-cspf-information* >

Usage

```
<rpc-reply>
  <mpls-cspf-information>
    <mpls-cspf>...</mpls-cspf>
  </mpls-cspf-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <mpls-cspf>—No documentation is available yet.

< *mpls-error* >

Usage

```
<rpc-reply>
  <mpls-error>
    <mpls-error-msg>mpls-error-msg</mpls-error-msg>
  </mpls-error>
</rpc-reply>
```

Description No documentation is available yet.

Contents <mpls-error-msg>—MPLS error message.

< *mpls-interface* >

Usage

```
<mpls-interface-information>
  <mpls-interface>
    <interface-name>interface-name</interface-name>
    <mpls-interface-state>mpls-interface-state</mpls-interface-state>
    <no-group-flag/>
    <admin-group-name>admin-group-name</admin-group-name>
    <admin-group-number>admin-group-number</admin-group-number>
  </mpls-interface>
</mpls-interface-information>
```

Description No documentation is available yet.

Contents <admin-group-name>—Name of the admin group.

<admin-group-number>—Number of the admin group.

<interface-name>—No documentation is available yet.

<mpls-interface-state>—No documentation is available yet.

<no-group-flag>—No documentation is available yet.

< *mpls-interface-information* >

Usage

```
<rpc-reply>
  <mpls-interface-information>
    <mpls-interface>...</mpls-interface>
  </mpls-interface-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <mpls-interface>—No documentation is available yet.

< *mpls-lsp* >

Usage

```
<rsvp-session>
  <mpls-lsp>
    <destination-address>destination-address</destination-address>
    <source-address>source-address</source-address>
    <lsp-state>lsp-state</lsp-state>
    <route-count>route-count</route-count>
    <active-path>active-path</active-path>
    <is-primary/>
    <name>name</name>
    <bidirectional/>
    <lsp-description>lsp-description</lsp-description>
    <lsp-pktbytes>lsp-pktbytes</lsp-pktbytes>
    <no-statistics/>
    <is-fastreroute/>
    <is-linkprotection/>
    <load-balance>load-balance</load-balance>
    <metric>metric</metric>
    <admin-groups>...</admin-groups>
    <lsp-creation-time>lsp-creation-time</lsp-creation-time>
    <retry-timer>retry-timer</retry-timer>
    <retry-limit>retry-limit</retry-limit>
    <mpls-lsp-autobandwidth>...</mpls-lsp-autobandwidth>
    <mpls-lsp-path>...</mpls-lsp-path>
    <mpls-lsp-attributes>...</mpls-lsp-attributes>
  </mpls-lsp>
</rsvp-session>
```

Description MPLS Label Switched Path (LSP).

Contents <active-path>—Path that the LSP is currently using.

<admin-groups>—No documentation is available yet.

<bidirectional>—LSP is bidirectional.

<destination-address>—Session destination address.

<is-fastreroute>—Indicates that detours will be established for an LSP so that if a node or link in the LSP fails, the traffic on the LSP can be rerouted with minimal packet loss.

<is-linkprotection>—Request to protect links via bypass LSPs.

<is-primary>—This is a primary path.

<load-balance>—Load-balancing algorithm chosen.

<lsp-creation-time>—Time when the LSP was created.

<lsp-description>—LSP description string (up to 80 characters).

<lsp-pktbytes>—No documentation is available yet.

<lsp-state>—State of an LSP.

<metric>—No documentation is available yet.

<mpls-lsp-attributes>—No documentation is available yet.

<mpls-lsp-autobandwidth>—No documentation is available yet.

<mpls-lsp-path>—Primary or secondary LSP path.

<name>—No documentation is available yet.

<no-statistics>—Indicates that no statistics are available for this session.

<retry-limit>—Maximum number of times the ingress tries to establish the primary path. It is reset each time primary path is created successfully.

<retry-timer>—Amount of time the ingress router waits between attempts to establish primary path.

<route-count>—Number of active routes.

<source-address>—No documentation is available yet.

< mpls-lsp-attributes >

Usage

```
<mpls-lsp>
  <mpls-lsp-attributes>
    <signal-type>signal-type</signal-type>
    <encoding-type>encoding-type</encoding-type>
    <switching-type>switching-type</switching-type>
    <gpid>gpid</gpid>
    <protection-type>protection-type</protection-type>
  </mpls-lsp-attributes>
</mpls-lsp>
```

Description No documentation is available yet.

Contents

<encoding-type>—LSP encoding type.

<gpid>—LSP generalized PID.

<protection-type>—LSP protection desired.

<signal-type>—No documentation is available yet.

<switching-type>—LSP switching capability.

< *mpls-lsp-autobandwidth* >

Usage

```
<mpls-lsp>
  <mpls-lsp-autobandwidth>
    <monitor-lsp-bandwidth/>
    <minimum-bandwidth>minimum-bandwidth</minimum-bandwidth>
    <maximum-bandwidth>maximum-bandwidth</maximum-bandwidth>
    <adjust-timer>adjust-timer</adjust-timer>
    <bandwidth>bandwidth</bandwidth>
    <time-to-adjust>time-to-adjust</time-to-adjust>
    <adjust-threshold>adjust-threshold</adjust-threshold>
  </mpls-lsp-autobandwidth>
</mpls-lsp>
```

Description No documentation is available yet.

Contents <adjust-threshold>—Percentage change in average LSP utilization to trigger autoadjustment.

<adjust-timer>—Configured LSP adjust timer.

<bandwidth>—No documentation is available yet.

<maximum-bandwidth>—Configured LSP maximum bandwidth.

<minimum-bandwidth>—Configured LSP minimum bandwidth.

<monitor-lsp-bandwidth>—LSP adjusts bandwidth automatically, but continues to passively monitor the maximum average bandwidth usage of the LSP.

<time-to-adjust>—Time in which LSP will autoadjust bandwidth.

< *mpls-lsp-information* >

Usage

```
<rpc-reply>
  <mpls-lsp-information>
    <rsvp-session-data>...</rsvp-session-data>
  </mpls-lsp-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <rsvp-session-data>—No documentation is available yet.

< *mpls-lsp-path* >

Usage

```
<mpls-lsp>
  <mpls-lsp-path>
    <path-active/>
    <title>title</title>
    <name>name</name>
    <path-state>path-state</path-state>
    <cos>cos</cos>
    <no-decrement-ttl/>
    <preference>preference</preference>
    <setup-priority>setup-priority</setup-priority>
    <hold-priority>hold-priority</hold-priority>
    <bandwidth>bandwidth</bandwidth>
    <path-adaptive/>
    <path-no-recordroute/>
    <hoplimit>hoplimit</hoplimit>
    <optimize-timer>optimize-timer</optimize-timer>
    <admin-groups>...</admin-groups>
    <retry-timer>retry-timer</retry-timer>
    <retry-limit>retry-limit</retry-limit>
    <cspf-status>cspf-status</cspf-status>
    <explicit-route>...</explicit-route>
    <received-rro>received-rro</received-rro>
    <path-history>...</path-history>
  </mpls-lsp-path>
</mpls-lsp>
```

Description Primary or secondary LSP path.

Contents

<admin-groups>—No documentation is available yet.

<bandwidth>—No documentation is available yet.

<cos>—COS value.

<cspf-status>—Status returned by CSPF computation.

<explicit-route>—Explicit Route Object (ERO).

<hold-priority>—Hold priority determines whether a session can be preempted by another session. Range is 0 to 7.

<hoplimit>—Maximum number of hops that can be traversed.

<name>—No documentation is available yet.

<no-decrement-ttl>—TTL.

<optimize-timer>—Indicates the frequency with which reoptimization of an LSP that is already set up is carried out. It is useful only when CSPF is enabled.

<path-active>—Whether the path is active or not.

<path-adaptive>—Indicates that during reroute, the bandwidth on links shared by the old and new paths is not double-counted. SE style reservation is used to assist in smooth transition during rerouting.

<path-history>—Log over time of LSP path-related events.

<path-no-recordroute>—Indicates that an LSP does not actively record routes in the path.

<path-state>—State of the MPLS path.

<preference>—Preference value configured with the preference statement. The default preference value is 170.

<received-rro>—RRO returned by the signaling protocol.

<retry-limit>—Maximum number of times the ingress tries to establish the primary path. It is reset each time primary path is created successfully.

<retry-timer>—Amount of time the ingress router waits between attempts to establish primary path.

<setup-priority>—Setup priority determines the ability of a session to preempt existing session. Range is 0 to 7.

<title>—No documentation is available yet.

< *mpls-path* >

Usage

```
<mpls-path-information>
  <mpls-path>
    <name>name</name>
    <address>address</address>
    <path-type>path-type</path-type>
  </mpls-path>
</mpls-path-information>
```

Description No documentation is available yet.

Contents <address>—No documentation is available yet.

<name>—No documentation is available yet.

<path-type>—No documentation is available yet.

< *mpls-path-information* >

Usage

```
<rpc-reply>
  <mpls-path-information>
    <mpls-path>...</mpls-path>
  </mpls-path-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <mpls-path>—No documentation is available yet.

< *mt-tlv* >

Usage

```
<isis-tlv>
  <mt-tlv>
    <mtid>mtid</mtid>
  </mt-tlv>
</isis-tlv>
```

Description No documentation is available yet.

Contents <mtid>—No documentation is available yet.

< *next-hop-address* >

Usage

```
<ospf-route | ospf3-route>
  <next-hop-address>
    <interface-address>interface-address</interface-address>
    <lsp-name>lsp-name</lsp-name>
  </next-hop-address>
</ospf-route | ospf3-route>
```

Description No documentation is available yet.

Contents <interface-address>—No documentation is available yet.

<lsp-name>—Tunneled into an RSVP LSP.

< *next-hop-element* >

Usage

```
<isis-spf-result>
  <next-hop-element>
    <interface-name>interface-name</interface-name>
    <isis-next-hop>isis-next-hop</isis-next-hop>
    <snpa>snpa</snpa>
  </next-hop-element>
</isis-spf-result>
```

Description No documentation is available yet.

Contents <interface-name>—No documentation is available yet.

<isis-next-hop>—No documentation is available yet.

<snpa>—No documentation is available yet.

< *next-hop-name* >

Usage

```
<ospf-route | ospf3-route>
  <next-hop-name>
    <interface-name>interface-name</interface-name>
    <interface-link-name>interface-link-name</interface-link-name>
  </next-hop-name>
</ospf-route | ospf3-route>
```

Description No documentation is available yet.

Contents <interface-link-name>—No documentation is available yet.

<interface-name>—No documentation is available yet.

< *nh* >

Usage

```
<rt-entry | protocol-nh>
  <nh>
    <selected-next-hop/>
    <weight>weight</weight>
    <via>via</via>
    <nh-local-interface>nh-local-interface</nh-local-interface>
    <nh-table-receive>nh-table-receive</nh-table-receive>
    <nh-table>nh-table</nh-table>
    <to>to</to>
    <lsp-name>lsp-name</lsp-name>
    <mpls-label>mpls-label</mpls-label>
  </nh>
</rt-entry | protocol-nh>
```

Description Next-hop gateway information.

Contents <lsp-name>—Tunneled into an RSVP LSP.

<mpls-label>—Tunneled by MPLS label.

<nh-local-interface>—Destination is a local interface.

<nh-table>—Indirect pointing to another table.

<nh-table-receive>—Destination is a local address.

<selected-next-hop>—Present if this next hop is selected.

<to>—Neighbor address to which to send (next-hop address).

<via>—Reachable via a local interface.

<weight>—Next-hop weight.

< *ospf-area-header* >

Usage

```
<ospf-database-information | ospf3-database-information>
  <ospf-area-header>
    <ospf-area>ospf-area</ospf-area>
  </ospf-area-header>
</ospf-database-information | ospf3-database-information>
```

Description No documentation is available yet.

Contents <ospf-area>—No documentation is available yet.

< *ospf-database* >

Usage

```
<ospf-database-information>
  <ospf-database>
    <lsa-type>lsa-type</lsa-type>
    <our-entry/>
    <lsa-id>lsa-id</lsa-id>
    <advertising-router>advertising-router</advertising-router>
    <sequence-number>sequence-number</sequence-number>
    <age>age</age>
    <options>options</options>
    <checksum>checksum</checksum>
    <lsa-length>lsa-length</lsa-length>
    <ospf-router-lsa>...</ospf-router-lsa>
    <ospf-network-lsa>...</ospf-network-lsa>
    <ospf-opaque-area-lsa>...</ospf-opaque-area-lsa>
    <ospf-opaque-link-local-lsa>...</ospf-opaque-link-local-lsa>
    <ospf-summary-lsa>...</ospf-summary-lsa>
    <ospf-external-lsa>...</ospf-external-lsa>
    <ospf-database-extensive>...</ospf-database-extensive>
  </ospf-database>
</ospf-database-information>
```

Description No documentation is available yet.

Contents <advertising-router>—No documentation is available yet.

<age>—No documentation is available yet.

<checksum>—No documentation is available yet.

<lsa-id>—No documentation is available yet.

<lsa-length>—No documentation is available yet.

<lsa-type>—No documentation is available yet.

<options>—No documentation is available yet.

<ospf-database-extensive>—No documentation is available yet.

<ospf-external-lsa>—No documentation is available yet.

<ospf-network-lsa>—No documentation is available yet.

<ospf-opaque-area-lsa>—No documentation is available yet.

<ospf-opaque-link-local-lsa>—No documentation is available yet.

<ospf-router-lsa>—No documentation is available yet.

<ospf-summary-lsa>—No documentation is available yet.

<our-entry>—No documentation is available yet.

<sequence-number>—No documentation is available yet.

< *ospf-database-extensive* >

Usage

```
<ospf-database | ospf3-database>
  <ospf-database-extensive>
    <generation-timer>generation-timer</generation-timer>
    <aging-timer>aging-timer</aging-timer>
    <installation-time>installation-time</installation-time>
    <expiration-time>expiration-time</expiration-time>
    <send-time>send-time</send-time>
    <database-entry-state>database-entry-state</database-entry-state>
  </ospf-database-extensive>
</ospf-database | ospf3-database>
```

Description No documentation is available yet.

Contents <aging-timer>—No documentation is available yet.

<database-entry-state>—No documentation is available yet.

<expiration-time>—No documentation is available yet.

<generation-timer>—No documentation is available yet.

<installation-time>—No documentation is available yet.

<send-time>—No documentation is available yet.

< *ospf-database-information* >

Usage

```
<rpc-reply>
  <ospf-database-information>
    <ospf-area-header>...</ospf-area-header>
    <ospf-intf-header>...</ospf-intf-header>
    <ospf-database>...</ospf-database>
    <ospf-database-summary>...</ospf-database-summary>
  </ospf-database-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ospf-area-header>—No documentation is available yet.

<ospf-database>—No documentation is available yet.

<ospf-database-summary>—No documentation is available yet.

<ospf-intf-header>—No documentation is available yet.

< *ospf-database-summary* >

Usage

```
<ospf-database-information>
  <ospf-database-summary>
    <ospf-area>ospf-area</ospf-area>
    <ospf-intf>ospf-intf</ospf-intf>
    <ospf-lsa-count>ospf-lsa-count</ospf-lsa-count>
    <ospf-lsa-type>ospf-lsa-type</ospf-lsa-type>
  </ospf-database-summary>
</ospf-database-information>
```

Description No documentation is available yet.

Contents <ospf-area>—No documentation is available yet.

<ospf-intf>—No documentation is available yet.

<ospf-lsa-count>—No documentation is available yet.

<ospf-lsa-type>—No documentation is available yet.

< *ospf-errors* >

Usage

```
<ospf-io-statistics | ospf-statistics>
  <ospf-errors>
    <runt-header-error>runt-header-error</runt-header-error>
    <short-packets-error>short-packets-error</short-packets-error>
    <bad-version-error>bad-version-error</bad-version-error>
    <truncated-packets-error>truncated-packets-error</truncated-packets-error>
    <checksum-error>checksum-error</checksum-error>
    <subnet-mismatch-error>subnet-mismatch-error</subnet-mismatch-error>
    <virtual-link-error>virtual-link-error</virtual-link-error>
    <area-mismatch-error>area-mismatch-error</area-mismatch-error>
    <authentication-mismatch-error>mismatch-error</authentication-mismatch-error>
    <authentication-failure-error>authentication-failure-error</authentication-failure-error>
    <bad-packettype-error>bad-packettype-error</bad-packettype-error>
    <netmask-mismatch-error>netmask-mismatch-error</netmask-mismatch-error>
    <hello-interval-mismatch-error>mismatch-error</hello-interval-mismatch-error>
    <dead-interval-mismatch-error>mismatch-error</dead-interval-mismatch-error>
    <stub-area-mismatch-error>stub-area-mismatch-error</stub-area-mismatch-error>
    <nssa-mismatch-error>nssa-mismatch-error</nssa-mismatch-error>
    <mtu-mismatch-error>mtu-mismatch-error</mtu-mismatch-error>
    <hello-received-error>hello-received-error</hello-received-error>
    <no-interface-error>no-interface-error</no-interface-error>
    <no-router-id-error>no-router-id-error</no-router-id-error>
    <instance-id-mismatch-error>instance-id-mismatch-error</instance-id-mismatch-error>
    <no-error/>
  </ospf-errors>
</ospf-io-statistics | ospf-statistics>
```

Description No documentation is available yet.

Contents <area-mismatch-error>—No documentation is available yet.

<authentication-failure-error>—No documentation is available yet.

<authentication-mismatch-error>—No documentation is available yet.

<bad-packettype-error>—No documentation is available yet.

<bad-version-error>—No documentation is available yet.

<checksum-error>—No documentation is available yet.

<dead-interval-mismatch-error>—No documentation is available yet.

<hello-interval-mismatch-error>—No documentation is available yet.

<hello-received-error>—No documentation is available yet.

<instance-id-mismatch-error>—No documentation is available yet.

<mtu-mismatch-error>—No documentation is available yet.

<netmask-mismatch-error>—No documentation is available yet.

<no-error>—No documentation is available yet.

<no-interface-error>—No documentation is available yet.

<no-router-id-error>—No documentation is available yet.

<nssa-mismatch-error>—No documentation is available yet.

<runt-header-error>—No documentation is available yet.

<short-packets-error>—No documentation is available yet.

<stub-area-mismatch-error>—No documentation is available yet.

<subnet-mismatch-error>—No documentation is available yet.

<truncated-packets-error>—No documentation is available yet.

<virtual-link-error>—No documentation is available yet.

< *ospf-external-lsa* >

Usage

```
<ospf-database>
  <ospf-external-lsa>
    <address-mask>address-mask</address-mask>
    <type-value>type-value</type-value>
    <tos-count>tos-count</tos-count>
    <metric>metric</metric>
    <forward-address>forward-address</forward-address>
    <tag>tag</tag>
  </ospf-external-lsa>
</ospf-database>
```

Description No documentation is available yet.

Contents <address-mask>—No documentation is available yet.

<forward-address>—No documentation is available yet.

<metric>—No documentation is available yet.

<tag>—No documentation is available yet.

<tos-count>—No documentation is available yet.

<type-value>—No documentation is available yet.

< *ospf-interface* >

Usage

```
<ospf-interface-information>
  <ospf-interface>
    <interface-name>interface-name</interface-name>
    <ospf-interface-state>ospf-interface-state</ospf-interface-state>
    <ospf-area>ospf-area</ospf-area>
    <dr-id>dr-id</dr-id>
    <bdr-id>bdr-id</bdr-id>
    <neighbor-count>neighbor-count</neighbor-count>
    <interface-type>interface-type</interface-type>
    <interface-address>interface-address</interface-address>
    <address-mask>address-mask</address-mask>
    <mtu>mtu</mtu>
    <interface-cost>interface-cost</interface-cost>
    <dr-address>dr-address</dr-address>
    <bdr-address>bdr-address</bdr-address>
    <adj-count>adj-count</adj-count>
    <router-priority>router-priority</router-priority>
    <passive>passive</passive>
    <hello-interval>hello-interval</hello-interval>
    <poll-interval>poll-interval</poll-interval>
    <dead-interval>dead-interval</dead-interval>
    <retransmit-interval>retransmit-interval</retransmit-interval>
    <ospf-stub-type>ospf-stub-type</ospf-stub-type>
    <interface-flood-list-count>interface-flood-list-count</interface-flood-list-count>
    <flood-list-count>flood-list-count</flood-list-count>
    <lsa-list>lsa-list</lsa-list>
    <interface-description-list>interface-description-list</interface-description-list>
  </ospf-interface>
</ospf-interface-information>
```

Description No documentation is available yet.

Contents <address-mask>—No documentation is available yet.

<adj-count>—Count of fully adjacent neighbors.

<bdr-address>—IP address of BDR.

<bdr-id>—No documentation is available yet.

<dead-interval>—No documentation is available yet.

<dr-address>—IP address of DR.

<dr-id>—No documentation is available yet.

<flood-list-count>—No documentation is available yet.

<hello-interval>—Determines the rate at which RSVP hellos are sent out. Default is 3 seconds.

<interface-address>—No documentation is available yet.

<interface-cost>—Cost associated with this interface.

<interface-description-list>—No documentation is available yet.

<interface-flood-list-count>—No documentation is available yet.

<interface-name>—No documentation is available yet.

<interface-type>—No documentation is available yet.

<lsa-list>—No documentation is available yet.

<mtu>—MTU along an interface.

<neighbor-count>—No documentation is available yet.

<ospf-area>—No documentation is available yet.

<ospf-interface-state>—No documentation is available yet.

<ospf-stub-type>—No documentation is available yet.

<passive>—No documentation is available yet.

<poll-interval>—No documentation is available yet.

<retransmit-interval>—No documentation is available yet.

<router-priority>—Router priority used in DR election on broadcast or NBMA interface.

< ospf-interface-information >

Usage

```
<rpc-reply>
  <ospf-interface-information>
    <ospf-interface>...</ospf-interface>
  </ospf-interface-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ospf-interface>—No documentation is available yet.

< ospf-intf-header >

Usage

```
<ospf-database-information | ospf3-database-information>
  <ospf-intf-header>
    <ospf-intf>ospf-intf</ospf-intf>
  </ospf-intf-header>
</ospf-database-information | ospf3-database-information>
```

Description No documentation is available yet.

Contents <ospf-intf>—No documentation is available yet.

< *ospf-io-statistics* >

Usage

```
<ospf-io-statistics-information | ospf3-io-statistics-information>
  <ospf-io-statistics>
    <packets-read>packets-read</packets-read>
    <average-per-run>average-per-run</average-per-run>
    <max-run>max-run</max-run>
    <ospf-errors>...</ospf-errors>
  </ospf-io-statistics>
</ospf-io-statistics-information | ospf3-io-statistics-information>
```

Description No documentation is available yet.

Contents <average-per-run>—No documentation is available yet.

<max-run>—No documentation is available yet.

<ospf-errors>—No documentation is available yet.

<packets-read>—No documentation is available yet.

< *ospf-io-statistics-information* >

Usage

```
<rpc-reply>
  <ospf-io-statistics-information>
    <ospf-io-statistics>...</ospf-io-statistics>
  </ospf-io-statistics-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ospf-io-statistics>—No documentation is available yet.

< *ospf-link* >

Usage

```
<ospf-router-lsa>
  <ospf-link>
    <link-id>link-id</link-id>
    <link-data>link-data</link-data>
    <link-type-name>link-type-name</link-type-name>
    <link-type-value>link-type-value</link-type-value>
    <tos-count>tos-count</tos-count>
    <tos-0-metric>tos-0-metric</tos-0-metric>
  </ospf-link>
</ospf-router-lsa>
```

Description No documentation is available yet.

Contents <link-data>—No documentation is available yet.

<link-id>—No documentation is available yet.

<link-type-name>—No documentation is available yet.

<link-type-value>—No documentation is available yet.

<tos-0-metric>—No documentation is available yet.

<tos-count>—No documentation is available yet.

< *ospf-log-events* >

Usage

```
<ospf-log-information | ospf3-log-information>
  <ospf-log-events>
    <log-element>...</log-element>
    <number-events>number-events</number-events>
  </ospf-log-events>
</ospf-log-information | ospf3-log-information>
```

Description No documentation is available yet.

Contents <log-element>—No documentation is available yet.

<number-events>—No documentation is available yet.

< *ospf-log-information* >

Usage

```
<rpc-reply>
  <ospf-log-information>
    <ospf-log-instance>...</ospf-log-instance>
    <ospf-log-maximum-length>...</ospf-log-maximum-length>
    <ospf-log-events>...</ospf-log-events>
  </ospf-log-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ospf-log-events>—No documentation is available yet.

<ospf-log-instance>—No documentation is available yet.

<ospf-log-maximum-length>—No documentation is available yet.

< *ospf-log-instance* >

Usage

```
<ospf-log-information | ospf3-log-information>
  <ospf-log-instance>
    <log-element>...</log-element>
  </ospf-log-instance>
</ospf-log-information | ospf3-log-information>
```

Description No documentation is available yet.

Contents <log-element>—No documentation is available yet.

< *ospf-log-maximum-length* >

Usage

```
<ospf-log-information | ospf3-log-information>
  <ospf-log-maximum-length>
    <log-element>...</log-element>
  </ospf-log-maximum-length>
</ospf-log-information | ospf3-log-information>
```

Description No documentation is available yet.

Contents <log-element>—No documentation is available yet.

< *ospf-neighbor* >

Usage

```
<ospf-neighbor-information>
  <ospf-neighbor>
    <neighbor-address>neighbor-address</neighbor-address>
    <interface-name>interface-name</interface-name>
    <ospf-neighbor-state>ospf-neighbor-state</ospf-neighbor-state>
    <neighbor-id>neighbor-id</neighbor-id>
    <neighbor-priority>neighbor-priority</neighbor-priority>
    <activity-timer>activity-timer</activity-timer>
    <ospf-area>ospf-area</ospf-area>
    <options>options</options>
    <dr-address>dr-address</dr-address>
    <bdr-address>bdr-address</bdr-address>
    <neighbor-up-time>neighbor-up-time</neighbor-up-time>
    <neighbor-adjacency-time>neighbor-adjacency-time</neighbor-adjacency-time>
    <master-slave>master-slave</master-slave>
    <sequence-number>sequence-number</sequence-number>
    <dbd-retransmit-time>dbd-retransmit-time</dbd-retransmit-time>
    <lsreq-retransmit-time>lsreq-retransmit-time</lsreq-retransmit-time>
    <lsreq-enqueued/>
    <lsreq-active/>
    <lsa-list>lsa-list</lsa-list>
  </ospf-neighbor>
</ospf-neighbor-information>
```

Description No documentation is available yet.

Contents <activity-timer>—No documentation is available yet.

<bdr-address>—IP address of BDR.

<dbd-retransmit-time>—Seconds until DBD is retransmitted.

<dr-address>—IP address of DR.

<interface-name>—No documentation is available yet.

<lsa-list>—No documentation is available yet.

<lsreq-active>—No documentation is available yet.

<lsreq-enqueued>—No documentation is available yet.

<lsreq-retransmit-time>—Seconds until LSREQ is retransmitted.

<master-slave>—No documentation is available yet.

<neighbor-address>—IP address of this neighbor.

<neighbor-adjacency-time>—Time when neighbor became adjacent.

<neighbor-id>—No documentation is available yet.

<neighbor-priority>—No documentation is available yet.

<neighbor-up-time>—Time when neighbor came up.

<options>—No documentation is available yet.

<ospf-area>—No documentation is available yet.

<ospf-neighbor-state>—No documentation is available yet.

<sequence-number>—No documentation is available yet.

< *ospf-neighbor-information* >

Usage

```
<rpc-reply>
  <ospf-neighbor-information>
    <ospf-neighbor>...</ospf-neighbor>
  </ospf-neighbor-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ospf-neighbor>—No documentation is available yet.

< *ospf-network-lsa* >

Usage

```
<ospf-database>
  <ospf-network-lsa>
    <address-mask>address-mask</address-mask>
    <attached-router>attached-router</attached-router>
  </ospf-network-lsa>
</ospf-database>
```

Description No documentation is available yet.

Contents <address-mask>—No documentation is available yet.

<attached-router>—No documentation is available yet.

< *ospf-opaque-area-lsa* >

Usage

```
<ospf-database>
  <ospf-opaque-area-lsa>
    <tlv-block>...</tlv-block>
    <link-subtlv>...</link-subtlv>
  </ospf-opaque-area-lsa>
</ospf-database>
```

Description No documentation is available yet.

Contents <link-subtlv>—No documentation is available yet.

<tlv-block>—No documentation is available yet.

< *ospf-opaque-link-local-lsa* >

Usage

```
<ospf-database | ospf3-database>
  <ospf-opaque-link-local-lsa>
    <tlv-grace-type-name>tlv-grace-type-name</tlv-grace-type-name>
    <tlv-grace-value>tlv-grace-value</tlv-grace-value>
  </ospf-opaque-link-local-lsa>
</ospf-database | ospf3-database>
```

Description No documentation is available yet.

Contents <tlv-grace-type-name>—No documentation is available yet.

<tlv-grace-value>—No documentation is available yet.

< *ospf-route* >

Usage

```
<ospf-route-information>
  <ospf-route>
    <address-prefix>address-prefix</address-prefix>
    <route-path-type>route-path-type</route-path-type>
    <route-type>route-type</route-type>
    <next-hop-type>next-hop-type</next-hop-type>
    <interface-cost>interface-cost</interface-cost>
    <next-hop-name>...</next-hop-name>
    <next-hop-address>...</next-hop-address>
    <ospf-area>ospf-area</ospf-area>
    <optional-capability>optional-capability</optional-capability>
    <route-origin>route-origin</route-origin>
    <type7/>
    <pbit/>
    <forward-nz/>
  </ospf-route>
</ospf-route-information>
```

Description No documentation is available yet.

Contents <address-prefix>—No documentation is available yet.

<forward-nz>—No documentation is available yet.

<interface-cost>—Cost associated with this interface.

<next-hop-address>—No documentation is available yet.

<next-hop-name>—No documentation is available yet.

<next-hop-type>—No documentation is available yet.

<optional-capability>—VEB bits received in the router LSA.

<ospf-area>—No documentation is available yet.

<pbit>—No documentation is available yet.

<route-origin>—No documentation is available yet.

<route-path-type>—No documentation is available yet.

<route-type>—No documentation is available yet.

<type7>—No documentation is available yet.

< ospf-route-information >

Usage

```
<rpc-reply>
  <ospf-route-information>
    <ospf-route>...</ospf-route>
  </ospf-route-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ospf-route>—No documentation is available yet.

< ospf-router-lsa >

Usage

```
<ospf-database>
  <ospf-router-lsa>
    <bits>bits</bits>
    <link-count>link-count</link-count>
    <ospf-link>...</ospf-link>
  </ospf-router-lsa>
</ospf-database>
```

Description No documentation is available yet.

Contents <bits>—No documentation is available yet.

<link-count>—No documentation is available yet.

<ospf-link>—No documentation is available yet.

< *ospf-statistics* >

Usage

```
<ospf-statistics-information | ospf3-statistics-information>
  <ospf-statistics>
    <packet-statistics>...</packet-statistics>
    <dbds-retransmit>dbds-retransmit</dbds-retransmit>
    <dbds-retransmit-5seconds>dbds-retransmit-5seconds</dbds-retransmit-5seconds>
    <lsas-flooded>lsas-flooded</lsas-flooded>
    <lsas-flooded-5seconds>lsas-flooded-5seconds</lsas-flooded-5seconds>
    <lsas-high-prio-flooded>lsas-high-prio-flooded</lsas-high-prio-flooded>
    <lsas-high-prio-flooded-5seconds>high-prio-flooded</lsas-high-prio-flooded-5seconds>
    <lsas-retransmit>lsas-retransmit</lsas-retransmit>
    <lsas-retransmit-5seconds>lsas-retransmit-5seconds</lsas-retransmit-5seconds>
    <lsas-nbr-transmit>lsas-nbr-transmit</lsas-nbr-transmit>
    <lsas-nbr-transmit-5seconds>lsas-nbr-transmit</lsas-nbr-transmit-5seconds>
    <lsas-requested>lsas-requested</lsas-requested>
    <lsas-requested-5seconds>lsas-requested-5seconds</lsas-requested-5seconds>
    <lsas-acknowledged>lsas-acknowledged</lsas-acknowledged>
    <lsas-acknowledged-5seconds>lsas-acknowledged</lsas-acknowledged-5seconds>
    <flood-queue-depth>flood-queue-depth</flood-queue-depth>
    <total-retransmits>total-retransmits</total-retransmits>
    <total-database-summaries>total-database-summaries</total-database-summaries>
    <total-linkstate-request>total-linkstate-request</total-linkstate-request>
    <ospf-errors>...</ospf-errors>
  </ospf-statistics>
</ospf-statistics-information | ospf3-statistics-information>
```

Description No documentation is available yet.

Contents

<dbds-retransmit>—No documentation is available yet.

<dbds-retransmit-5seconds>—No documentation is available yet.

<flood-queue-depth>—No documentation is available yet.

<lsas-acknowledged>—No documentation is available yet.

<lsas-acknowledged-5seconds>—No documentation is available yet.

<lsas-flooded>—No documentation is available yet.

<lsas-flooded-5seconds>—No documentation is available yet.

<lsas-high-prio-flooded>—No documentation is available yet.

<lsas-high-prio-flooded-5seconds>—No documentation is available yet.

<lsas-nbr-transmit>—No documentation is available yet.

<lsas-nbr-transmit-5seconds>—No documentation is available yet.

<lsas-requested>—No documentation is available yet.

<lsas-requested-5seconds>—No documentation is available yet.

<lsas-retransmit>—No documentation is available yet.

<lsas-retransmit-5seconds>—No documentation is available yet.

<ospf-errors>—No documentation is available yet.

<packet-statistics>—No documentation is available yet.

<total-database-summaries>—No documentation is available yet.

<total-linkstate-request>—No documentation is available yet.

<total-retransmits>—No documentation is available yet.

< *ospf-statistics-information* >

Usage

```
<rpc-reply>
  <ospf-statistics-information>
    <ospf-statistics>...</ospf-statistics>
  </ospf-statistics-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ospf-statistics>—No documentation is available yet.

< *ospf-summary-lsa* >

Usage

```
<ospf-database>
  <ospf-summary-lsa>
    <address-mask>address-mask</address-mask>
    <tos-count>tos-count</tos-count>
    <metric>metric</metric>
  </ospf-summary-lsa>
</ospf-database>
```

Description No documentation is available yet.

Contents <address-mask>—No documentation is available yet.

<metric>—No documentation is available yet.

<tos-count>—No documentation is available yet.

< *ospf3-database* >

Usage

```
<ospf3-database-information>
  <ospf3-database>
    <lsa-type>lsa-type</lsa-type>
    <our-entry/>
    <lsa-id>lsa-id</lsa-id>
    <advertising-router>advertising-router</advertising-router>
    <sequence-number>sequence-number</sequence-number>
    <age>age</age>
    <checksum>checksum</checksum>
    <lsa-length>lsa-length</lsa-length>
    <ospf3-router-lsa>...</ospf3-router-lsa>
    <ospf3-network-lsa>...</ospf3-network-lsa>
    <ospf3-inter-area-prefix-lsa>...</ospf3-inter-area-prefix-lsa>
    <ospf3-inter-area-router-lsa>...</ospf3-inter-area-router-lsa>
    <ospf3-external-lsa>...</ospf3-external-lsa>
    <ospf3-link-lsa>...</ospf3-link-lsa>
    <ospf3-intra-area-prefix-lsa>...</ospf3-intra-area-prefix-lsa>
    <ospf-database-extensive>...</ospf-database-extensive>
    <ospf-opaque-link-local-lsa>...</ospf-opaque-link-local-lsa>
  </ospf3-database>
</ospf3-database-information>
```

Description No documentation is available yet.

Contents <advertising-router>—No documentation is available yet.

<age>—No documentation is available yet.

<checksum>—No documentation is available yet.

<lsa-id>—No documentation is available yet.

<lsa-length>—No documentation is available yet.

<lsa-type>—No documentation is available yet.

<ospf-database-extensive>—No documentation is available yet.

<ospf-opaque-link-local-lsa>—No documentation is available yet.

<ospf3-external-lsa>—No documentation is available yet.

<ospf3-inter-area-prefix-lsa>—No documentation is available yet.

<ospf3-inter-area-router-lsa>—No documentation is available yet.

<ospf3-intra-area-prefix-lsa>—No documentation is available yet.

<ospf3-link-lsa>—No documentation is available yet.

<ospf3-network-lsa>—No documentation is available yet.

<ospf3-router-lsa>—No documentation is available yet.

<our-entry>—No documentation is available yet.

<sequence-number>—No documentation is available yet.

< ospf3-database-information >

Usage

```
<rpc-reply>
  <ospf3-database-information>
    <ospf-area-header>...</ospf-area-header>
    <ospf-intf-header>...</ospf-intf-header>
    <ospf3-database>...</ospf3-database>
    <ospf3-database-summary>...</ospf3-database-summary>
  </ospf3-database-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ospf-area-header>—No documentation is available yet.

<ospf-intf-header>—No documentation is available yet.

<ospf3-database>—No documentation is available yet.

<ospf3-database-summary>—No documentation is available yet.

< ospf3-database-summary >

Usage

```
<ospf3-database-information>
  <ospf3-database-summary>
    <ospf-area>ospf-area</ospf-area>
    <ospf-intf>ospf-intf</ospf-intf>
    <ospf-lsa-count>ospf-lsa-count</ospf-lsa-count>
    <ospf-lsa-type>ospf-lsa-type</ospf-lsa-type>
  </ospf3-database-summary>
</ospf3-database-information>
```

Description No documentation is available yet.

Contents <ospf-area>—No documentation is available yet.

<ospf-intf>—No documentation is available yet.

<ospf-lsa-count>—No documentation is available yet.

<ospf-lsa-type>—No documentation is available yet.

< *ospf3-external-lsa* >

Usage

```
<ospf3-database>
  <ospf3-external-lsa>
    <ospf3-prefix>ospf3-prefix</ospf3-prefix>
    <ospf3-prefix-options>ospf3-prefix-options</ospf3-prefix-options>
    <type-value>type-value</type-value>
    <metric>metric</metric>
    <forward-address>forward-address</forward-address>
    <tag>tag</tag>
  </ospf3-external-lsa>
</ospf3-database>
```

Description No documentation is available yet.

Contents <forward-address>—No documentation is available yet.

<metric>—No documentation is available yet.

<ospf3-prefix>—No documentation is available yet.

<ospf3-prefix-options>—No documentation is available yet.

<tag>—No documentation is available yet.

<type-value>—No documentation is available yet.

< *ospf3-inter-area-prefix-lsa* >

Usage

```
<ospf3-database>
  <ospf3-inter-area-prefix-lsa>
    <ospf3-prefix>ospf3-prefix</ospf3-prefix>
    <ospf3-prefix-options>ospf3-prefix-options</ospf3-prefix-options>
    <metric>metric</metric>
  </ospf3-inter-area-prefix-lsa>
</ospf3-database>
```

Description No documentation is available yet.

Contents <metric>—No documentation is available yet.

<ospf3-prefix>—No documentation is available yet.

<ospf3-prefix-options>—No documentation is available yet.

< *ospf3-inter-area-router-lsa* >

Usage

```
<ospf3-database>
  <ospf3-inter-area-router-lsa>
    <destination-router-id>destination-router-id</destination-router-id>
    <ospf3-options>ospf3-options</ospf3-options>
    <metric>metric</metric>
  </ospf3-inter-area-router-lsa>
</ospf3-database>
```

Description No documentation is available yet.

Contents <destination-router-id>—No documentation is available yet.

<metric>—No documentation is available yet.

<ospf3-options>—No documentation is available yet.

< *ospf3-interface* >

Usage

```
<ospf3-interface-information>
  <ospf3-interface>
    <interface-name>interface-name</interface-name>
    <ospf-interface-state>ospf-interface-state</ospf-interface-state>
    <ospf-area>ospf-area</ospf-area>
    <dr-id>dr-id</dr-id>
    <bdr-id>bdr-id</bdr-id>
    <neighbor-count>neighbor-count</neighbor-count>
    <interface-address>interface-address</interface-address>
    <prefix-length>prefix-length</prefix-length>
    <ospf3-interface-index>ospf3-interface-index</ospf3-interface-index>
    <interface-type>interface-type</interface-type>
    <mtu>mtu</mtu>
    <interface-cost>interface-cost</interface-cost>
    <dr-address>dr-address</dr-address>
    <bdr-address>bdr-address</bdr-address>
    <adj-count>adj-count</adj-count>
    <router-priority>router-priority</router-priority>
    <passive>passive</passive>
    <hello-interval>hello-interval</hello-interval>
    <poll-interval>poll-interval</poll-interval>
    <dead-interval>dead-interval</dead-interval>
    <retransmit-interval>retransmit-interval</retransmit-interval>
    <ospf-stub-type>ospf-stub-type</ospf-stub-type>
    <interface-flood-list-count>interface-flood-list-count</interface-flood-list-count>
    <flood-list-count>flood-list-count</flood-list-count>
    <lsa-list>lsa-list</lsa-list>
    <interface-description-list>interface-description-list</interface-description-list>
  </ospf3-interface>
</ospf3-interface-information>
```

Description No documentation is available yet.

Contents <adj-count>—Count of fully adjacent neighbors.

<bdr-address>—IP address of BDR.

<bdr-id>—No documentation is available yet.

<dead-interval>—No documentation is available yet.

<dr-address>—IP address of DR.

<dr-id>—No documentation is available yet.

<flood-list-count>—No documentation is available yet.

<hello-interval>—Determines the rate at which RSVP hellos are sent out. Default is 3 seconds.

<interface-address>—No documentation is available yet.

<interface-cost>—Cost associated with this interface.

<interface-description-list>—No documentation is available yet.

<interface-flood-list-count>—No documentation is available yet.

<interface-name>—No documentation is available yet.

<interface-type>—No documentation is available yet.

<lsa-list>—No documentation is available yet.

<mtu>—MTU along an interface.

<neighbor-count>—No documentation is available yet.

<ospf-area>—No documentation is available yet.

<ospf-interface-state>—No documentation is available yet.

<ospf-stub-type>—No documentation is available yet.

<ospf3-interface-index>—No documentation is available yet.

<passive>—No documentation is available yet.

<poll-interval>—No documentation is available yet.

<prefix-length>—No documentation is available yet.

<retransmit-interval>—No documentation is available yet.

<router-priority>—Router priority used in DR election on broadcast or NBMA interface.

< *ospf3-interface-information* >

Usage

```
<rpc-reply>
  <ospf3-interface-information>
    <ospf3-interface>...</ospf3-interface>
  </ospf3-interface-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ospf3-interface>—No documentation is available yet.

< *ospf3-intra-area-prefix-lsa* >

Usage

```
<ospf3-database>
  <ospf3-intra-area-prefix-lsa>
    <reference-lsa-type>reference-lsa-type</reference-lsa-type>
    <reference-lsa-id>reference-lsa-id</reference-lsa-id>
    <reference-lsa-router-id>reference-lsa-router-id</reference-lsa-router-id>
    <prefix-count>prefix-count</prefix-count>
    <ospf3-prefix>ospf3-prefix</ospf3-prefix>
    <ospf3-prefix-options>ospf3-prefix-options</ospf3-prefix-options>
    <ospf3-prefix-metric>ospf3-prefix-metric</ospf3-prefix-metric>
  </ospf3-intra-area-prefix-lsa>
</ospf3-database>
```

Description No documentation is available yet.

Contents <ospf3-prefix>—No documentation is available yet.

<ospf3-prefix-metric>—No documentation is available yet.

<ospf3-prefix-options>—No documentation is available yet.

<prefix-count>—No documentation is available yet.

<reference-lsa-id>—No documentation is available yet.

<reference-lsa-router-id>—No documentation is available yet.

<reference-lsa-type>—No documentation is available yet.

< *ospf3-io-statistics-information* >

Usage

```
<rpc-reply>
  <ospf3-io-statistics-information>
    <ospf-io-statistics>...</ospf-io-statistics>
  </ospf3-io-statistics-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ospf-io-statistics>—No documentation is available yet.

< *ospf3-link* >

Usage

```
<ospf3-router-lsa>
  <ospf3-link>
    <link-type-name>link-type-name</link-type-name>
    <link-type-value>link-type-value</link-type-value>
    <link-intf-id>link-intf-id</link-intf-id>
    <nbr-intf-id>nbr-intf-id</nbr-intf-id>
    <nbr-rtr-id>nbr-rtr-id</nbr-rtr-id>
    <link-metric>link-metric</link-metric>
  </ospf3-link>
</ospf3-router-lsa>
```

Description No documentation is available yet.

Contents <link-intf-id>—No documentation is available yet.

<link-metric>—No documentation is available yet.

<link-type-name>—No documentation is available yet.

<link-type-value>—No documentation is available yet.

<nbr-intf-id>—No documentation is available yet.

<nbr-rtr-id>—No documentation is available yet.

< *ospf3-link-lsa* >

Usage

```
<ospf3-database>
  <ospf3-link-lsa>
    <linklocal-address>linklocal-address</linklocal-address>
    <ospf3-options>ospf3-options</ospf3-options>
    <router-priority>router-priority</router-priority>
    <prefix-count>prefix-count</prefix-count>
    <ospf3-prefix>ospf3-prefix</ospf3-prefix>
    <ospf3-prefix-options>ospf3-prefix-options</ospf3-prefix-options>
  </ospf3-link-lsa>
</ospf3-database>
```

Description No documentation is available yet.

Contents <linklocal-address>—No documentation is available yet.

<ospf3-options>—No documentation is available yet.

<ospf3-prefix>—No documentation is available yet.

<ospf3-prefix-options>—No documentation is available yet.

<prefix-count>—No documentation is available yet.

<router-priority>—Router priority used in DR election on broadcast or NBMA interface.

< *ospf3-log-information* >

Usage

```
<rpc-reply>
  <ospf3-log-information>
    <ospf-log-instance>...</ospf-log-instance>
    <ospf-log-maximum-length>...</ospf-log-maximum-length>
    <ospf-log-events>...</ospf-log-events>
  </ospf3-log-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ospf-log-events>—No documentation is available yet.

<ospf-log-instance>—No documentation is available yet.

<ospf-log-maximum-length>—No documentation is available yet.

< *ospf3-neighbor* >

Usage

```
<ospf3-neighbor-information>
  <ospf3-neighbor>
    <neighbor-id>neighbor-id</neighbor-id>
    <interface-name>interface-name</interface-name>
    <ospf-neighbor-state>ospf-neighbor-state</ospf-neighbor-state>
    <neighbor-priority>neighbor-priority</neighbor-priority>
    <activity-timer>activity-timer</activity-timer>
    <neighbor-address>neighbor-address</neighbor-address>
    <ospf-area>ospf-area</ospf-area>
    <options>options</options>
    <ospf3-interface-index>ospf3-interface-index</ospf3-interface-index>
    <dr-id>dr-id</dr-id>
    <bdr-id>bdr-id</bdr-id>
    <neighbor-up-time>neighbor-up-time</neighbor-up-time>
    <neighbor-adjacency-time>neighbor-adjacency-time</neighbor-adjacency-time>
    <master-slave>master-slave</master-slave>
    <sequence-number>sequence-number</sequence-number>
    <dbd-retransmit-time>dbd-retransmit-time</dbd-retransmit-time>
    <lsreq-retransmit-time>lsreq-retransmit-time</lsreq-retransmit-time>
    <lsreq-enqueued/>
    <lsreq-active/>
    <lsa-list>lsa-list</lsa-list>
  </ospf3-neighbor>
</ospf3-neighbor-information>
```

Description No documentation is available yet.

Contents <activity-timer>—No documentation is available yet.

<bdr-id>—No documentation is available yet.

<dbd-retransmit-time>—Seconds until DBD is retransmitted.

<dr-id>—No documentation is available yet.

<interface-name>—No documentation is available yet.

<lsa-list>—No documentation is available yet.

<lsreq-active>—No documentation is available yet.

<lsreq-enqueued>—No documentation is available yet.

<lsreq-retransmit-time>—Seconds until LSREQ is retransmitted.

<master-slave>—No documentation is available yet.

<neighbor-address>—IP address of this neighbor.

<neighbor-adjacency-time>—Time when neighbor became adjacent.

<neighbor-id>—No documentation is available yet.

<neighbor-priority>—No documentation is available yet.

<neighbor-up-time>—Time when neighbor came up.

<options>—No documentation is available yet.

<ospf-area>—No documentation is available yet.

<ospf-neighbor-state>—No documentation is available yet.

<ospf3-interface-index>—No documentation is available yet.

<sequence-number>—No documentation is available yet.

< ospf3-neighbor-information >

Usage

```
<rpc-reply>
  <ospf3-neighbor-information>
    <ospf3-neighbor>...</ospf3-neighbor>
  </ospf3-neighbor-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ospf3-neighbor>—No documentation is available yet.

< *ospf3-network-lsa* >

Usage

```
<ospf3-database>
  <ospf3-network-lsa>
    <ospf3-options>ospf3-options</ospf3-options>
    <attached-router>attached-router</attached-router>
  </ospf3-network-lsa>
</ospf3-database>
```

Description No documentation is available yet.

Contents <attached-router>—No documentation is available yet.

<ospf3-options>—No documentation is available yet.

< *ospf3-route* >

Usage

```
<ospf3-route-information>
  <ospf3-route>
    <address-prefix>address-prefix</address-prefix>
    <route-path-type>route-path-type</route-path-type>
    <route-type>route-type</route-type>
    <next-hop-type>next-hop-type</next-hop-type>
    <interface-cost>interface-cost</interface-cost>
    <next-hop-name>...</next-hop-name>
    <next-hop-address>...</next-hop-address>
    <ospf-area>ospf-area</ospf-area>
    <optional-capability>optional-capability</optional-capability>
    <route-origin>route-origin</route-origin>
    <type7/>
    <pbit/>
    <forward-nz/>
  </ospf3-route>
</ospf3-route-information>
```

Description No documentation is available yet.

Contents <address-prefix>—No documentation is available yet.

<forward-nz>—No documentation is available yet.

<interface-cost>—Cost associated with this interface.

<next-hop-address>—No documentation is available yet.

<next-hop-name>—No documentation is available yet.

<next-hop-type>—No documentation is available yet.

<optional-capability>—VEB bits received in the router LSA.

<ospf-area>—No documentation is available yet.

<pbit>—No documentation is available yet.

<route-origin>—No documentation is available yet.

<route-path-type>—No documentation is available yet.

<route-type>—No documentation is available yet.

<type7>—No documentation is available yet.

< *ospf3-route-information* >

Usage

```
<rpc-reply>
  <ospf3-route-information>
    <ospf3-route>...</ospf3-route>
  </ospf3-route-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ospf3-route>—No documentation is available yet.

< *ospf3-router-lsa* >

Usage

```
<ospf3-database>
  <ospf3-router-lsa>
    <bits>bits</bits>
    <ospf3-options>ospf3-options</ospf3-options>
    <ospf3-link>...</ospf3-link>
  </ospf3-router-lsa>
</ospf3-database>
```

Description No documentation is available yet.

Contents <bits>—No documentation is available yet.

<ospf3-link>—No documentation is available yet.

<ospf3-options>—No documentation is available yet.

< *ospf3-statistics-information* >

Usage

```
<rpc-reply>
  <ospf3-statistics-information>
    <ospf-statistics>...</ospf-statistics>
  </ospf3-statistics-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ospf-statistics>—No documentation is available yet.

< *packet-information* >

Usage

```
<rsvp-session | detour | detour-branch>
  <packet-information>
    <previous-hop>previous-hop</previous-hop>
    <next-hop>next-hop</next-hop>
    <interface-name>interface-name</interface-name>
    <count>count</count>
  </packet-information>
</rsvp-session | detour | detour-branch>
```

Description RSVP packets sent or received per session.

Contents <count>—No documentation is available yet.

<interface-name>—No documentation is available yet.

<next-hop>—Next-hop address.

<previous-hop>—Previous-hop address.

< *packet-statistics* >

Usage

```
<ospf-statistics>
  <packet-statistics>
    <ospf-packet-type>ospf-packet-type</ospf-packet-type>
    <packets-sent>packets-sent</packets-sent>
    <packets-received>packets-received</packets-received>
    <packets-sent-5seconds>packets-sent-5seconds</packets-sent-5seconds>
    <packets-received-5seconds>packets-received</packets-received-5seconds>
  </packet-statistics>
</ospf-statistics>
```

Description No documentation is available yet.

Contents <ospf-packet-type>—No documentation is available yet.

<packets-received>—No documentation is available yet.

<packets-received-5seconds>—No documentation is available yet.

<packets-sent>—No documentation is available yet.

<packets-sent-5seconds>—No documentation is available yet.

< *path-history* >

Usage

```
<mpls-lsp-path>
  <path-history>
    <sequence-number>sequence-number</sequence-number>
    <time>time</time>
    <log>log</log>
    <route>route</route>
  </path-history>
</mpls-lsp-path>
```

Description Log over time of LSP path-related events.

Contents <log>—No documentation is available yet.

<route>—No documentation is available yet.

<sequence-number>—No documentation is available yet.

<time>—No documentation is available yet.

< *prefix-element* >

Usage

```
<isis-spf-result>
  <prefix-element>
    <address-prefix>address-prefix</address-prefix>
    <prefix-metric>prefix-metric</prefix-metric>
    <external-prefix-metric>external-prefix-metric</external-prefix-metric>
  </prefix-element>
</isis-spf-result>
```

Description No documentation is available yet.

Contents <address-prefix>—No documentation is available yet.

<external-prefix-metric>—No documentation is available yet.

<prefix-metric>—No documentation is available yet.

< *prefix-limit* >

Usage

```
<bgp-option-information>
  <prefix-limit>
    <nlri-type>nlri-type</nlri-type>
    <prefix-count>prefix-count</prefix-count>
    <limit-action>limit-action</limit-action>
    <warning-percentage>warning-percentage</warning-percentage>
  </prefix-limit>
</bgp-option-information>
```

Description No documentation is available yet.

Contents <limit-action>—No documentation is available yet.

<nlri-type>—No documentation is available yet.

<prefix-count>—No documentation is available yet.

<warning-percentage>—No documentation is available yet.

< *protocol-nh* >

Usage

```
<rt-entry>
  <protocol-nh>
    <to>to</to>
    <metric>metric</metric>
    <indirect-nh>indirect-nh</indirect-nh>
    <mpls-label>mpls-label</mpls-label>
    <forwarding-nh-count>forwarding-nh-count</forwarding-nh-count>
    <nh>...</nh>
  </protocol-nh>
</rt-entry>
```

Description Protocol next hop.

Contents <forwarding-nh-count>—Number of indirect path forwarding next hops.

<indirect-nh>—No documentation is available yet.

<metric>—No documentation is available yet.

<mpls-label>—Tunneled by MPLS label.

<nh>—Next-hop gateway information.

<to>—Neighbor address to which to send (next-hop address).

< *protocols* >

Usage

```
<route-table>
  <protocols>
    <protocol-name>protocol-name</protocol-name>
    <protocol-route-count>protocol-route-count</protocol-route-count>
    <active-route-count>active-route-count</active-route-count>
  </protocols>
</route-table>
```

Description No documentation is available yet.

Contents <active-route-count>—Active routes.

<protocol-name>—No documentation is available yet.

<protocol-route-count>—Total protocol routes.

< *protocols-tlv* >

Usage

```
<isis-tlv>
  <protocols-tlv>
    <protocol>protocol</protocol>
  </protocols-tlv>
</isis-tlv>
```

Description No documentation is available yet.

Contents <protocol>—No documentation is available yet.

< *reachability-tlv* >

Usage

```
<isis-tlv>
  <reachability-tlv>
    <isis-topology-id>isis-topology-id</isis-topology-id>
    <address-prefix>address-prefix</address-prefix>
    <metric>metric</metric>
    <prefix-flag>prefix-flag</prefix-flag>
    <reachability-delay/>
    <reachability-expense/>
    <reachability-error/>
    <address>address</address>
    <neighbor-prefix>neighbor-prefix</neighbor-prefix>
    <tlv-length>tlv-length</tlv-length>
  </reachability-tlv>
</isis-tlv>
```

Description No documentation is available yet.

Contents <address>—No documentation is available yet.

<address-prefix>—No documentation is available yet.

<isis-topology-id>—No documentation is available yet.

<metric>—No documentation is available yet.

<neighbor-prefix>—No documentation is available yet.

<prefix-flag>—No documentation is available yet.

<reachability-delay>—No documentation is available yet.

<reachability-error>—No documentation is available yet.

<reachability-expense>—No documentation is available yet.

<tlv-length>—No documentation is available yet.

< *record-route* >

Usage

```
<rsvp-session | detour | detour-branch>
  <record-route>
    <address>address</address>
    <self/>
    <incomplete/>
  </record-route>
</rsvp-session | detour | detour-branch>
```

Description Record Route Object (RRO).

Contents <address>—No documentation is available yet.

<incomplete>—No documentation is available yet.

<self>—No documentation is available yet.

< *reference-site* >

Usage

```
<instance>
  <reference-site>
    <local-site-id>local-site-id</local-site-id>
    <remote-site-id>remote-site-id</remote-site-id>
    <interface>...</interface>
    <label-block>...</label-block>
    <connection>...</connection>
  </reference-site>
</instance>
```

Description No documentation is available yet.

Contents <connection>—No documentation is available yet.

<interface>—No documentation is available yet.

<label-block>—No documentation is available yet.

<local-site-id>—No documentation is available yet.

<remote-site-id>—No documentation is available yet.

< *remote-interface* >

Usage

```
<connection>
  <remote-interface>
    <interface-name>interface-name</interface-name>
    <interface-status>interface-status</interface-status>
    <interface-encapsulation>interface-encapsulation</interface-encapsulation>
  </remote-interface>
</connection>
```

Description No documentation is available yet.

Contents <interface-encapsulation>—No documentation is available yet.

<interface-name>—No documentation is available yet.

<interface-status>—No documentation is available yet.

< *reserved-bandwidth* >

Usage

```
<rsvp-telink | rsvp-interface>
  <reserved-bandwidth>
    <bandwidth-priority>bandwidth-priority</bandwidth-priority>
    <total-reserved-bandwidth>total-reserved-bandwidth</total-reserved-bandwidth>
  </reserved-bandwidth>
</rsvp-telink | rsvp-interface>
```

Description Bandwidth reserved at different priority levels.

Contents <bandwidth-priority>—No documentation is available yet.

<total-reserved-bandwidth>—Total amount of bandwidth currently reserved.

< *rip-error* >

Usage

```
<rpc-reply>
  <rip-error>
    <rip-error-message>rip-error-message</rip-error-message>
  </rip-error>
</rpc-reply>
```

Description No documentation is available yet.

Contents <rip-error-message>—RIP error message.

< *rip-general-statistics* >

Usage

```
<rip-general-statistics-information>
  <rip-general-statistics>
    <rip-protocol-name>rip-protocol-name</rip-protocol-name>
    <rip-bad-messages>rip-bad-messages</rip-bad-messages>
    <rip-interface-count>rip-interface-count</rip-interface-count>
    <rip-current-memory>rip-current-memory</rip-current-memory>
    <rip-maximum-memory>rip-maximum-memory</rip-maximum-memory>
  </rip-general-statistics>
</rip-general-statistics-information>
```

Description No documentation is available yet.

Contents <rip-bad-messages>—Number of bad messages received so far.

<rip-current-memory>—The amount of memory allocated by the protocol at this time. This value is zero if the protocol is not running.

<rip-interface-count>—Number of interfaces on which the protocol is enabled.

<rip-maximum-memory>—The maximum amount of memory the protocol ever used. This value might be nonzero even if the protocol is not currently running.

<rip-protocol-name>—Protocol name for the subsequent information: either RIPv2 or RIPng.

< *rip-general-statistics-information* >

Usage

```
<rpc-reply>
  <rip-general-statistics-information>
    <rip-general-statistics>...</rip-general-statistics>
  </rip-general-statistics-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <rip-general-statistics>—No documentation is available yet.

< *rip-global-statistics* >

Usage

```
<rip-statistics-information>
  <rip-global-statistics>
    <rip-routes-learned>rip-routes-learned</rip-routes-learned>
    <rip-routes-holddown>rip-routes-holddown</rip-routes-holddown>
    <rip-requests-dropped>rip-requests-dropped</rip-requests-dropped>
    <rip-responses-dropped>rip-responses-dropped</rip-responses-dropped>
  </rip-global-statistics>
</rip-statistics-information>
```

Description No documentation is available yet.

Contents <rip-requests-dropped>—Number of requests dropped.

<rip-responses-dropped>—Number of responses dropped.

<rip-routes-holddown>—Number of routes in hold-down state.

<rip-routes-learned>—Number of routes learned.

< *rip-message-statistics* >

Usage

```
<rip-neighbor-statistics>
  <rip-message-statistics>
    <rip-message>rip-message</rip-message>
    <rip-message-total>rip-message-total</rip-message-total>
    <rip-message-last-5minutes>rip-message-last-5minutes</rip-message-last-5minutes>
    <rip-message-last-minute>rip-message-last-minute</rip-message-last-minute>
  </rip-message-statistics>
</rip-neighbor-statistics>
```

Description No documentation is available yet.

Contents <rip-message>—No documentation is available yet.

<rip-message-last-5minutes>—Number of messages in the last 5 minutes.

<rip-message-last-minute>—Number of messages in the last minute.

<rip-message-total>—Total number of messages.

< *rip-neighbor* >

Usage

```
<rip-neighbor-information>
  <rip-neighbor>
    <rip-neighbor-name>rip-neighbor-name</rip-neighbor-name>
    <rip-neighbor-state>rip-neighbor-state</rip-neighbor-state>
    <rip-neighbor-metric-in>rip-neighbor-metric-in</rip-neighbor-metric-in>
    <rip-local-address-ipv4>rip-local-address-ipv4</rip-local-address-ipv4>
    <rip-remote-address-ipv4>rip-remote-address-ipv4</rip-remote-address-ipv4>
    <send-mode-ripv2>send-mode-ripv2</send-mode-ripv2>
    <receive-mode-ripv2>receive-mode-ripv2</receive-mode-ripv2>
    <rip-local-address-ipv6>rip-local-address-ipv6</rip-local-address-ipv6>
    <rip-remote-address-ipv6>rip-remote-address-ipv6</rip-remote-address-ipv6>
    <send-mode-ripng>send-mode-ripng</send-mode-ripng>
    <receive-mode-ripng>receive-mode-ripng</receive-mode-ripng>
  </rip-neighbor>
</rip-neighbor-information>
```

Description No documentation is available yet.

Contents

<receive-mode-ripng>—Specifies the receive state of the neighbor, which determines whether RIPng packets are accepted through that interface.

<receive-mode-ripv2>—Specifies the receive state of the neighbor, which determines which RIP packets are accepted. It is one of four values: (1) v1 only--only RIPv1 packets are received, (2) v2 only--only RIPv2 packets are received, (3) both--both RIPv1 and RIPv2 packets are received, or (4) none--no packets are received.

<rip-local-address-ipv4>—Local address of this neighbor (IPv4 address of the interface over which the protocol is configured).

<rip-local-address-ipv6>—Local address of this neighbor (IPv6 address of the interface over which the protocol is configured).

<rip-neighbor-metric-in>—Metric value to add to incoming routes. This is a value between 1 and 15.

<rip-neighbor-name>—Name of the interface over which the protocol is configured.

<rip-neighbor-state>—Indicates whether a neighbor is up or down.

<rip-remote-address-ipv4>—Remote address for this neighbor. If the neighbor is configured for broadcast mode, this is the broadcast address; otherwise, it is the RIP multicast address.

<rip-remote-address-ipv6>—Remote address of this neighbor (RIPng multicast address).

<send-mode-ripng>—Specifies the send state of the neighbor, which determines whether the neighbor sends RIPng updates.

<send-mode-ripv2>—Specifies the send state of the neighbor, which determines how RIP updates are sent. It is one of four values: (1) bcast--broadcast of RIPv2 packets (compatible with RIPv1), (2) mcast--multicast of RIPv2 packets, (3) v1--broadcast of RIPv1 packets, or (4) none--silent neighbor; no updates sent.

< *rip-neighbor-information* >

Usage

```
<rpc-reply>
  <rip-neighbor-information>
    <rip-neighbor>...</rip-neighbor>
  </rip-neighbor-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <rip-neighbor>—No documentation is available yet.

< *rip-neighbor-statistics* >

Usage

```
<rip-statistics-information>
  <rip-neighbor-statistics>
    <rip-neighbor-name>rip-neighbor-name</rip-neighbor-name>
    <rip-neighbor-learnt-routes>rip-neighbor-learnt-routes</rip-neighbor-learnt-routes>
    <rip-neighbor-advertised-routes>-advertised-routes</rip-neighbor-advertised-routes>
    <rip-message-statistics>...</rip-message-statistics>
  </rip-neighbor-statistics>
</rip-statistics-information>
```

Description No documentation is available yet.

Contents <rip-message-statistics>—No documentation is available yet.

<rip-neighbor-advertised-routes>—Number of routes advertised by this neighbor.

<rip-neighbor-learnt-routes>—Number of routes learned by this neighbor.

<rip-neighbor-name>—Name of the interface over which the protocol is configured.

< *rip-restart-values* >

Usage

```
<rip-statistics-information>
  <rip-restart-values>
    <rip-restart-state>rip-restart-state</rip-restart-state>
    <rip-restart-time>rip-restart-time</rip-restart-time>
    <rip-restart-timeout>rip-restart-timeout</rip-restart-timeout>
  </rip-restart-values>
</rip-statistics-information>
```

Description No documentation is available yet.

Contents <rip-restart-state>—Indicates if graceful restart is in progress.

<rip-restart-time>—Restart time locally configured.

<rip-restart-timeout>—Time after which graceful restart is complete.

< *rip-statistics-information* >

Usage

```
<rpc-reply>
  <rip-statistics-information>
    <rip-timer-values>...</rip-timer-values>
    <rip-restart-values>...</rip-restart-values>
    <rip-global-statistics>...</rip-global-statistics>
    <rip-neighbor-statistics>...</rip-neighbor-statistics>
  </rip-statistics-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <rip-global-statistics>—No documentation is available yet.

<rip-neighbor-statistics>—No documentation is available yet.

<rip-restart-values>—No documentation is available yet.

<rip-timer-values>—No documentation is available yet.

< *rip-timer-values* >

Usage

```
<rip-statistics-information>
  <rip-timer-values>
    <rip-protocol-name>rip-protocol-name</rip-protocol-name>
    <rip-port>rip-port</rip-port>
    <rip-update-interval>rip-update-interval</rip-update-interval>
    <rip-holddown>rip-holddown</rip-holddown>
    <rip-timeout>rip-timeout</rip-timeout>
  </rip-timer-values>
</rip-statistics-information>
```

Description No documentation is available yet.

Contents <rip-holddown>—Value of the hold-down timer.

<rip-port>—Port on which the protocol is running.

<rip-protocol-name>—Protocol name for the subsequent information: either RIPv2 or RIPng.

<rip-timeout>—Timeout value.

<rip-update-interval>—Number of seconds between updates.

< *route-filter* >

Usage

```
<rt-martians | unconfigured-peers>
  <route-filter>
    <address>address</address>
    <flags>flags</flags>
    <extended-information>extended-information</extended-information>
  </route-filter>
</rt-martians | unconfigured-peers>
```

Description Entries in martian table.

Contents <address>—No documentation is available yet.

<extended-information>—No documentation is available yet.

<flags>—Enabled trace flags.

< *route-flap-damping* >

Usage

```
<rt-entry>
  <route-flap-damping>
    <merit>merit</merit>
    <last-merit>last-merit</last-merit>
    <damping-parameters>damping-parameters</damping-parameters>
    <default-damping-parameters/>
    <last-update>last-update</last-update>
    <first-update>first-update</first-update>
    <route-flap-count>route-flap-count</route-flap-count>
    <suppressed/>
    <reuse-time>reuse-time</reuse-time>
    <reuse-preference>reuse-preference</reuse-preference>
    <expire-time>expire-time</expire-time>
  </route-flap-damping>
</rt-entry>
```

Description No documentation is available yet.

Contents <damping-parameters>—No documentation is available yet.

<default-damping-parameters>—Default damping parameters used.

<expire-time>—Time when this damping entry expires.

<first-update>—No documentation is available yet.

<last-merit>—Last merit value.

<last-update>—No documentation is available yet.

<merit>—Current merit value.

<reuse-preference>—Preference to use when this route is reused.

<reuse-time>—Time until this route is reusable.

<route-flap-count>—Number of times this route has flapped.

<suppressed>—This route is suppressed.

< *route-information* >

Usage

```
<rpc-reply>
  <route-information>
    <as-number>as-number</as-number>
    <router-id>router-id</router-id>
    <route-table>...</route-table>
    <rt-martians>...</rt-martians>
    <rt-test-policy-prefix>...</rt-test-policy-prefix>
    <rt-test-policy>...</rt-test-policy>
  </route-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <as-number>—No documentation is available yet.

<route-table>—No documentation is available yet.

<router-id>—No documentation is available yet.

<rt-martians>—No documentation is available yet.

<rt-test-policy>—No documentation is available yet.

<rt-test-policy-prefix>—No documentation is available yet.

< *route-queue* >

Usage

```
<bgp-peer | bgp-group>
  <route-queue>
    <timer>timer</timer>
    <state>state</state>
    <element>element</element>
  </route-queue>
</bgp-peer | bgp-group>
```

Description No documentation is available yet.

Contents <element>—No documentation is available yet.

<state>—No documentation is available yet.

<timer>—No documentation is available yet.

< *route-summary-information* >

Usage

```
<rpc-reply>
  <route-summary-information>
    <as-number>as-number</as-number>
    <router-id>router-id</router-id>
    <route-table>...</route-table>
  </route-summary-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <as-number>—No documentation is available yet.

<route-table>—No documentation is available yet.

<router-id>—No documentation is available yet.

< *route-table* >

Usage

```
<route-information | route-summary-information>
  <route-table>
    <protocols>...</protocols>
    <table-name>table-name</table-name>
    <destination-count>destination-count</destination-count>
    <total-route-count>total-route-count</total-route-count>
    <active-route-count>active-route-count</active-route-count>
    <holddown-route-count>holddown-route-count</holddown-route-count>
    <hidden-route-count>hidden-route-count</hidden-route-count>
    <restart-state>restart-state</restart-state>
    <rt>...</rt>
  </route-table>
</route-information | route-summary-information>
```

Description No documentation is available yet.

Contents <active-route-count>—Active routes.

<destination-count>—Number of destinations in this rib.

<hidden-route-count>—No documentation is available yet.

<holddown-route-count>—No documentation is available yet.

<protocols>—No documentation is available yet.

<restart-state>—No documentation is available yet.

<rt>—No documentation is available yet.

<table-name>—No documentation is available yet.

<total-route-count>—No documentation is available yet.

< *router-id-tlv* >

Usage

```
<isis-tlv>
  <router-id-tlv>
    <router-id>router-id</router-id>
  </router-id-tlv>
</isis-tlv>
```

Description No documentation is available yet.

Contents <router-id>—No documentation is available yet.

< *rsvp-error* >

Usage

```
<rsvp-statistics-information>
  <rsvp-error>
    <error-message>error-message</error-message>
    <error-count>error-count</error-count>
    <error-count-5seconds>error-count-5seconds</error-count-5seconds>
  </rsvp-error>
</rsvp-statistics-information>
```

Description No documentation is available yet.

Contents <error-count>—Total number of errors encountered.

<error-count-5seconds>—Number of errors encountered in the last 5 seconds.

<error-message>—No documentation is available yet.

< *rsvp-graceful-restart* >

Usage

```
<rsvp-neighbor | rsvp-version>
  <rsvp-graceful-restart>
    <restart-status>restart-status</restart-status>
    <helper-status>helper-status</helper-status>
    <restart-time>restart-time</restart-time>
    <recovery-time>recovery-time</recovery-time>
  </rsvp-graceful-restart>
</rsvp-neighbor | rsvp-version>
```

Description No documentation is available yet.

Contents <helper-status>—No documentation is available yet.

<recovery-time>—Recovery time advertised.

<restart-status>—No documentation is available yet.

<restart-time>—Restart time advertised.

< rsvp-interface >

Usage

```
<rsvp-interface-information>
  <rsvp-interface>
    <interface-name>interface-name</interface-name>
    <rsvp-status>rsvp-status</rsvp-status>
    <active-control-channel>active-control-channel</active-control-channel>
    <control-channel-unusable/>
    <index>index</index>
    <authentication-flag>authentication-flag</authentication-flag>
    <aggregate-flag>aggregate-flag</aggregate-flag>
    <ack-flag>ack-flag</ack-flag>
    <protect-flag>protect-flag</protect-flag>
    <hello-interval>hello-interval</hello-interval>
    <forward-rsvp/>
    <interface-address>interface-address</interface-address>
    <loopback-address>loopback-address</loopback-address>
    <rsvp-telink>...</rsvp-telink>
    <message-statistics>...</message-statistics>
    <reserved-bandwidth>...</reserved-bandwidth>
    <detour-bandwidth>...</detour-bandwidth>
  </rsvp-interface>
</rsvp-interface-information>
```

Description No documentation is available yet.

Contents <ack-flag>—No documentation is available yet.

<active-control-channel>—Denotes the currently active control channel for the peer.

<aggregate-flag>—No documentation is available yet.

<authentication-flag>—No documentation is available yet.

<control-channel-unusable>—Indicates that control channel does not have RSVP enabled on it.

<detour-bandwidth>—Bandwidth reserved on detour at different priority levels.

<forward-rsvp>—This allows us to forward incoming RSVP messages on this interface when RSVP is disabled on the interface.

<hello-interval>—Determines the rate at which RSVP hellos are sent out. Default is 3 seconds.

<index>—No documentation is available yet.

<interface-address>—No documentation is available yet.

<interface-name>—No documentation is available yet.

<loopback-address>—No documentation is available yet.

<message-statistics>—Statistics per RSVP message type.

<protect-flag>—No documentation is available yet.

<reserved-bandwidth>—Bandwidth reserved at different priority levels.

<rsvp-status>—Indicates whether RSVP has been enabled, whether an RSVP interface is up or down, or whether aggregation of messages is supported.

<rsvp-telink>—No documentation is available yet.

< *rsvp-interface-information* >

Usage

```
<rpc-reply>
  <rsvp-interface-information>
    <active-count>active-count</active-count>
    <rsvp-interface>...</rsvp-interface>
  </rsvp-interface-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <active-count>—Number of active RSVP interfaces.

<rsvp-interface>—No documentation is available yet.

< *rsvp-neighbor* >

Usage

```
<rsvp-neighbor-information>
  <rsvp-neighbor>
    <rsvp-neighbor-address>rsvp-neighbor-address</rsvp-neighbor-address>
    <rsvp-neighbor-interface>rsvp-neighbor-interface</rsvp-neighbor-interface>
    <rsvp-neighbor-status>rsvp-neighbor-status</rsvp-neighbor-status>
    <neighbor-idle>neighbor-idle</neighbor-idle>
    <neighbor-up-count>neighbor-up-count</neighbor-up-count>
    <neighbor-down-count>neighbor-down-count</neighbor-down-count>
    <last-changed-time>last-changed-time</last-changed-time>
    <hello-interval>hello-interval</hello-interval>
    <hellos-sent>hellos-sent</hellos-sent>
    <hellos-received>hellos-received</hellos-received>
    <messages-received>messages-received</messages-received>
    <rsvp-neighbor-remote-instance>remote-instance</rsvp-neighbor-remote-instance>
    <rsvp-neighbor-local-instance>local-instance</rsvp-neighbor-local-instance>
    <rsvp-message>rsvp-message</rsvp-message>
    <rsvp-refresh-reduct-status>rsvp-refresh-reduct-status</rsvp-refresh-reduct-status>
    <rsvp-refresh-reduct-remote-status>remote-status</rsvp-refresh-reduct-remote-status>
    <rsvp-refresh-reduct-ack-status>ack-status</rsvp-refresh-reduct-ack-status>
    <rsvp-link-protect-status>rsvp-link-protect-status</rsvp-link-protect-status>
    <rsvp-lp-bypass-name>rsvp-lp-bypass-name</rsvp-lp-bypass-name>
    <rsvp-link-protection-bypass-status>bypass-status</rsvp-link-protection-bypass-status>
    <rsvp-lp-backup-route-cnt>rsvp-lp-backup-route-cnt</rsvp-lp-backup-route-cnt>
    <rsvp-lp-backup-lsp-cnt>rsvp-lp-backup-lsp-cnt</rsvp-lp-backup-lsp-cnt>
    <explicit-route>...</explicit-route>
    <rsvp-graceful-restart>...</rsvp-graceful-restart>
  </rsvp-neighbor>
</rsvp-neighbor-information>
```

Description No documentation is available yet.

Contents <explicit-route>—Explicit Route Object (ERO).

<hello-interval>—Determines the rate at which RSVP hellos are sent out. Default is 3 seconds.

<hellos-received>—Number of hellos received.

<hellos-sent>—Number of hellos sent.

<last-changed-time>—Time this neighbor last changed state.

<messages-received>—Total number of messages received.

<neighbor-down-count>—Number of times neighbor went down.

<neighbor-idle>—Length of time this neighbor has been idle.

<neighbor-up-count>—Number of times neighbor came up.

<rsvp-graceful-restart>—No documentation is available yet.

<rsvp-link-protect-status>—No documentation is available yet.

<rsvp-link-protection-bypass-status>—No documentation is available yet.

<rsvp-lp-backup-lsp-cnt>—Total number of backup LSPs.

<rsvp-lp-backup-route-cnt>—Total number of backup routes.

<rsvp-lp-bypass-name>—No documentation is available yet.

<rsvp-message>—No documentation is available yet.

<rsvp-neighbor-address>—No documentation is available yet.

<rsvp-neighbor-interface>—Local interface name.

<rsvp-neighbor-local-instance>—Local instance.

<rsvp-neighbor-remote-instance>—Remote instance.

<rsvp-neighbor-status>—No documentation is available yet.

<rsvp-refresh-reduct-ack-status>—No documentation is available yet.

<rsvp-refresh-reduct-remote-status>—No documentation is available yet.

<rsvp-refresh-reduct-status>—No documentation is available yet.

< *rsvp-neighbor-information* >

Usage

```
<rpc-reply>
  <rsvp-neighbor-information>
    <rsvp-neighbor-count>rsvp-neighbor-count</rsvp-neighbor-count>
    <rsvp-neighbor>...</rsvp-neighbor>
  </rsvp-neighbor-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <rsvp-neighbor>—No documentation is available yet.

<rsvp-neighbor-count>—Number of RSVP neighbors learned.

< *rsvp-session* >

Usage

```
<rsvp-session-data>
  <rsvp-session>
    <destination-address>destination-address</destination-address>
    <is-detour/>
    <source-address>source-address</source-address>
    <lsp-state>lsp-state</lsp-state>
    <lsp-pktbytes>lsp-pktbytes</lsp-pktbytes>
    <no-statistics/>
    <route-count>route-count</route-count>
    <rsb-count>rsb-count</rsb-count>
    <resv-style>resv-style</resv-style>
    <label-in>label-in</label-in>
    <label-out>label-out</label-out>
    <name>name</name>
    <bidirectional/>
    <upstream-label-in>upstream-label-in</upstream-label-in>
    <upstream-label-out>upstream-label-out</upstream-label-out>
    <suggested-label-in>suggested-label-in</suggested-label-in>
    <suggested-label-out>suggested-label-out</suggested-label-out>
    <recovery-label-in>recovery-label-in</recovery-label-in>
    <recovery-label-out>recovery-label-out</recovery-label-out>
    <psb-lifetime>psb-lifetime</psb-lifetime>
    <psb-creation-time>psb-creation-time</psb-creation-time>
    <sender-tspec>sender-tspec</sender-tspec>
    <lsp-id>lsp-id</lsp-id>
    <tunnel-id>tunnel-id</tunnel-id>
    <proto-id>proto-id</proto-id>
    <is-fastreroute/>
    <is-linkprotection/>
    <rsvp-path-status>rsvp-path-status</rsvp-path-status>
    <packet-information>...</packet-information>
    <explicit-route>...</explicit-route>
    <record-route>...</record-route>
    <detour>...</detour>
    <detour-branch>...</detour-branch>
    <mpls-lsp>...</mpls-lsp>
  </rsvp-session>
</rsvp-session-data>
```

Description Single RSVP session.

Contents <bidirectional>—LSP is bidirectional.

<destination-address>—Session destination address.

<detour>—Detour that originated at this LSR.

<detour-branch>—Detour that originated at some other LSR.

<explicit-route>—Explicit Route Object (ERO).

<is-detour>—Indicates that this is a detour session.

<is-fastreroute>—Indicates that detours will be established for an LSP so that if a node or link in the LSP fails, the traffic on the LSP can be rerouted with minimal packet loss.

<is-linkprotection>—Request to protect links via bypass LSPs.

<label-in>—Incoming label.

<label-out>—Outgoing label.

<lsp-id>—LSP ID or source port for some sender. It is unique to every sender or LSP.

<lsp-pktbytes>—No documentation is available yet.

<lsp-state>—State of an LSP.

<mpls-lsp>—MPLS Label Switched Path (LSP).

<name>—No documentation is available yet.

<no-statistics>—Indicates that no statistics are available for this session.

<packet-information>—RSVP packets sent or received per session.

<proto-id>—No documentation is available yet.

<psb-creation-time>—Time when this PSB was created.

<psb-lifetime>—This timer maintains the soft state of a PSB.

<record-route>—Record Route Object (RRO).

<recovery-label-in>—No documentation is available yet.

<recovery-label-out>—No documentation is available yet.

<resv-style>—Corresponds to one of the reservation styles: FF or SE.

<route-count>—Number of active routes.

<rsb-count>—Number of RSBs.

<rsvp-path-status>—No documentation is available yet.

<sender-tspec>—Sender TSpec.

<source-address>—No documentation is available yet.

<suggested-label-in>—Suggested label received.

<suggested-label-out>—Suggested label sent.

<tunnel-id>—Tunnel ID or destination port for this session. It is unique to every session.

<upstream-label-in>—Incoming upstream label.

<upstream-label-out>—Outgoing upstream label.

< *rsvp-session-data* >

Usage

```
<rsvp-session-information | mpls-lsp-information>
  <rsvp-session-data>
    <session-type>session-type</session-type>
    <count>count</count>
    <display-count>display-count</display-count>
    <up-count>up-count</up-count>
    <down-count>down-count</down-count>
    <detours>detours</detours>
    <rsvp-session>...</rsvp-session>
  </rsvp-session-data>
</rsvp-session-information | mpls-lsp-information>
```

Description No documentation is available yet.

Contents

<count>—No documentation is available yet.

<detours>—Number of detour sessions.

<display-count>—Number of sessions displayed.

<down-count>—Number of sessions in down state.

<rsvp-session>—Single RSVP session.

<session-type>—Indicates whether the router is at the ingress, egress, or transit for this session.

<up-count>—Number of sessions in up state.

< *rsvp-session-information* >

Usage

```
<rpc-reply>
  <rsvp-session-information>
    <rsvp-session-data>...</rsvp-session-data>
  </rsvp-session-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <rsvp-session-data>—No documentation is available yet.

< *rsvp-statistics-information* >

Usage

```
<rpc-reply>
  <rsvp-statistics-information>
    <message-statistics>...</message-statistics>
    <rsvp-error>...</rsvp-error>
  </rsvp-statistics-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <message-statistics>—Statistics per RSVP message type.

<rsvp-error>—No documentation is available yet.

< *rsvp-telink* >

Usage

```
<rsvp-interface>
  <rsvp-telink>
    <telink-name>telink-name</telink-name>
    <telink-local-id>telink-local-id</telink-local-id>
    <active-reservation>active-reservation</active-reservation>
    <subscription>subscription</subscription>
    <static-bandwidth>static-bandwidth</static-bandwidth>
    <available-bandwidth>available-bandwidth</available-bandwidth>
    <total-reserved-bandwidth>total-reserved-bandwidth</total-reserved-bandwidth>
    <high-watermark>high-watermark</high-watermark>
    <preemption-count>preemption-count</preemption-count>
    <update-threshold>update-threshold</update-threshold>
    <reserved-bandwidth>...</reserved-bandwidth>
    <detour-bandwidth>...</detour-bandwidth>
  </rsvp-telink>
</rsvp-interface>
```

Description No documentation is available yet.

Contents <active-reservation>—Number of active reservations.

<available-bandwidth>—Amount of bandwidth available for reservations.

<detour-bandwidth>—Bandwidth reserved on detour at different priority levels.

<high-watermark>—Maximum bandwidth that was ever reserved.

<preemption-count>—Number of preemptions that occurred on an interface.

<reserved-bandwidth>—Bandwidth reserved at different priority levels.

<static-bandwidth>—Static bandwidth capacity of the link.

<subscription>—Percentage of link capacity available for bandwidth reservations.

<telink-local-id>—Local identifier of the TE link.

<telink-name>—Name of the TE link.

<total-reserved-bandwidth>—Total amount of bandwidth currently reserved.

<update-threshold>—Percentage change in reserved bandwidth to trigger IGP update.

< *rsvp-version* >

Usage

```
<rsvp-version-information>
  <rsvp-version>
    <rsvp-status>rsvp-status</rsvp-status>
    <rsvp-restart-flag>rsvp-restart-flag</rsvp-restart-flag>
    <refresh-timer>refresh-timer</refresh-timer>
    <keep-multiplier>keep-multiplier</keep-multiplier>
    <preemption-type>preemption-type</preemption-type>
    <rsvp-graceful-restart>...</rsvp-graceful-restart>
  </rsvp-version>
</rsvp-version-information>
```

Description No documentation is available yet.

Contents

<keep-multiplier>—A measure of the number of RSVP message losses that can be tolerated before a state is timed out. Default is 3.

<preemption-type>—Type of preemption scheme.

<refresh-timer>—Indicates the rate at which RSVP refresh messages (Path and Resv) are sent out to maintain the soft state. Default is 30 seconds.

<rsvp-graceful-restart>—No documentation is available yet.

<rsvp-restart-flag>—RSVP restart is in progress.

<rsvp-status>—Indicates whether RSVP has been enabled, whether an RSVP interface is up or down, or whether aggregation of messages is supported.

< *rsvp-version-information* >

Usage

```
<rpc-reply>
  <rsvp-version-information>
    <rsvp-version>...</rsvp-version>
  </rsvp-version-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <rsvp-version>—No documentation is available yet.

< *rt* >

Usage

```
<route-table>
  <rt>
    <rtrib-primary>rtrib-primary</rtrib-primary>
    <rtrib-secondary>rtrib-secondary</rtrib-secondary>
    <rt-destination>rt-destination</rt-destination>
    <rt-prefix-length>rt-prefix-length</rt-prefix-length>
    <rt-entry-count>rt-entry-count</rt-entry-count>
    <rt-announced-count>rt-announced-count</rt-announced-count>
    <rt-state>rt-state</rt-state>
    <rt-entry>...</rt-entry>
    <tsi>tsi</tsi>
  </rt>
</route-table>
```

Description No documentation is available yet.

Contents <rt-announced-count>—Number of announced route entries.

<rt-destination>—No documentation is available yet.

<rt-entry>—No documentation is available yet.

<rt-entry-count>—Number of route entries in this route.

<rt-prefix-length>—No documentation is available yet.

<rt-state>—State of this route.

<rtrib-primary>—Primary routing table.

<rtrib-secondary>—Secondary routing table.

<tsi>—Task-specific information.

< *rt-entry* >

Usage

```
<rt>
  <rt-entry>
    <active-tag>active-tag</active-tag>
    <last-active/>
    <current-active/>
    <protocol-name>protocol-name</protocol-name>
    <preference>preference</preference>
    <preference2>preference2</preference2>
    <route-distinguisher>route-distinguisher</route-distinguisher>
    <color>color</color>
    <color2>color2</color2>
    <age>age</age>
    <metric>metric</metric>
    <metric2>metric2</metric2>
    <rt-tag>rt-tag</rt-tag>
    <rt-tag2>rt-tag2</rt-tag2>
    <learned-from>learned-from</learned-from>
    <peer-as>peer-as</peer-as>
    <local-as>local-as</local-as>
    <rt-entry-state>rt-entry-state</rt-entry-state>
    <inactive-reason>inactive-reason</inactive-reason>
    <task-name>task-name</task-name>
    <announce-bits>announce-bits</announce-bits>
    <announce-tasks>announce-tasks</announce-tasks>
    <as-path>as-path</as-path>
    <local-preference>local-preference</local-preference>
    <med>med</med>
    <peer-id>peer-id</peer-id>
    <route-flap-damping>...</route-flap-damping>
    <aggregate>...</aggregate>
    <gateway>gateway</gateway>
    <indirect-nh-count>indirect-nh-count</indirect-nh-count>
    <nh-type>nh-type</nh-type>
    <nh>...</nh>
    <protocol-nh>...</protocol-nh>
  </rt-entry>
</rt>
```

Description No documentation is available yet.

Contents <active-tag>—Visual indication of active state of this route entry.

<age>—No documentation is available yet.

<aggregate>—No documentation is available yet.

<announce-bits>—No documentation is available yet.

<announce-tasks>—No documentation is available yet.

<as-path>—AS path of this route.

<color>—No documentation is available yet.

<color2>—No documentation is available yet.

<current-active>—This route entry is currently active.

<gateway>—Sourcing gateway.

<inactive-reason>—No documentation is available yet.

<indirect-nh-count>—Number of indirect next hops.

<last-active>—This route entry was the last active route entry.

<learned-from>—Peer address from which this route was learned.

<local-as>—Local AS number.

<local-preference>—No documentation is available yet.

<med>—Multiple exit discriminator.

<metric>—No documentation is available yet.

<metric2>—No documentation is available yet.

<nh>—Next-hop gateway information.

<nh-type>—Special next hop: Reject, Blackhole, Receive, Multicast, Local, Unused.

<peer-as>—Peer AS number.

<peer-id>—Router identifier of the peer.

<preference>—Preference value configured with the preference statement. The default preference value is 170.

<preference2>—No documentation is available yet.

<protocol-name>—No documentation is available yet.

<protocol-nh>—Protocol next hop.

<route-distinguisher>—No documentation is available yet.

<route-flap-damping>—No documentation is available yet.

<rt-entry-state>—State of this route entry.

<rt-tag>—No documentation is available yet.

<rt-tag2>—No documentation is available yet.

<task-name>—The name of this task.

< rt-martians >

Usage

```
<route-information>
  <rt-martians>
    <rt-martian-table-name>rt-martian-table-name</rt-martian-table-name>
    <route-filter>...</route-filter>
  </rt-martians>
</route-information>
```

Description No documentation is available yet.

Contents <route-filter>—Entries in martian table.

<rt-martian-table-name>—Name of the martian table, for example, inet.0.

< rt-test-policy >

Usage

```
<route-information>
  <rt-test-policy>
    <rt-policy-name>rt-policy-name</rt-policy-name>
    <rt-route-accepted>rt-route-accepted</rt-route-accepted>
    <rt-route-rejected>rt-route-rejected</rt-route-rejected>
  </rt-test-policy>
</route-information>
```

Description No documentation is available yet.

Contents <rt-policy-name>—No documentation is available yet.

<rt-route-accepted>—No documentation is available yet.

<rt-route-rejected>—No documentation is available yet.

< rt-test-policy-prefix >

Usage

```
<route-information>
  <rt-test-policy-prefix>
    <rt-policy-name>rt-policy-name</rt-policy-name>
    <rt-destination>rt-destination</rt-destination>
    <rt-prefix-length>rt-prefix-length</rt-prefix-length>
    <rt-test-policy-term>...</rt-test-policy-term>
  </rt-test-policy-prefix>
</route-information>
```

Description No documentation is available yet.

Contents <rt-destination>—No documentation is available yet.

<rt-policy-name>—No documentation is available yet.

<rt-prefix-length>—No documentation is available yet.

<rt-test-policy-term>—No documentation is available yet.

< *rt-test-policy-term* >

Usage

```
<rt-test-policy-prefix>
  <rt-test-policy-term>
    <rt-policy-term-name>rt-policy-term-name</rt-policy-term-name>
    <rt-policy-term-result>rt-policy-term-result</rt-policy-term-result>
    <rt-policy-term-action>rt-policy-term-action</rt-policy-term-action>
  </rt-test-policy-term>
</rt-test-policy-prefix>
```

Description No documentation is available yet.

Contents <rt-policy-term-action>—No documentation is available yet.

<rt-policy-term-name>—No documentation is available yet.

<rt-policy-term-result>—No documentation is available yet.

< *rte-instance* >

Usage

```
<rtexport-table-information>
  <rte-instance>
    <instance-name>instance-name</instance-name>
    <rte-instance-type>rte-instance-type</rte-instance-type>
    <instance-flags>instance-flags</instance-flags>
    <instance-options>instance-options</instance-options>
    <import-policy>import-policy</import-policy>
    <export-policy>export-policy</export-policy>
  </rte-instance>
</rtexport-table-information>
```

Description No documentation is available yet.

Contents <export-policy>—No documentation is available yet.

<import-policy>—No documentation is available yet.

<instance-flags>—No documentation is available yet.

<instance-name>—No documentation is available yet.

<instance-options>—No documentation is available yet.

<rte-instance-type>—No documentation is available yet.

< *rte-table* >

Usage

```
<rtexport-table-information>
  <rte-table>
    <table-name>table-name</table-name>
    <table-export-on>table-export-on</table-export-on>
    <import-list>import-list</import-list>
    <table-flags>table-flags</table-flags>
    <table-usage>table-usage</table-usage>
  </rte-table>
</rtexport-table-information>
```

Description No documentation is available yet.

Contents

<import-list>—No documentation is available yet.

<table-export-on>—No documentation is available yet.

<table-flags>—No documentation is available yet.

<table-name>—No documentation is available yet.

<table-usage>—Number of exported routes.

< *rte-target* >

Usage

```
<rtexport-table-information>
  <rte-target>
    <target-string>target-string</target-string>
    <family>family</family>
    <subaf>subaf</subaf>
    <import-count>import-count</import-count>
    <export-count>export-count</export-count>
    <import-list>import-list</import-list>
    <export-list>export-list</export-list>
  </rte-target>
</rtexport-table-information>
```

Description No documentation is available yet.

Contents

<export-count>—No documentation is available yet.

<export-list>—No documentation is available yet.

<family>—No documentation is available yet.

<import-count>—No documentation is available yet.

<import-list>—No documentation is available yet.

<subaf>—No documentation is available yet.

<target-string>—Route target.

< *rtexport-table-information* >

Usage

```
<rpc-reply>
  <rtexport-table-information>
    <rte-table>...</rte-table>
    <rte-target>...</rte-target>
    <rte-instance>...</rte-instance>
  </rtexport-table-information>
</rpc-reply>
```

Description Operational information policy-based instance export.

Contents <rte-instance>—No documentation is available yet.

<rte-table>—No documentation is available yet.

<rte-target>—No documentation is available yet.

< *task* >

Usage

```
<task-information>
  <task>
    <task-name>task-name</task-name>
    <task-no-information/>
  </task>
</task-information>
```

Description No documentation is available yet.

Contents <task-name>—The name of this task.

<task-no-information>—No information is available for this task.

< *task-information* >

Usage

```
<rpc-reply>
  <task-information>
    <task>...</task>
  </task-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <task>—No documentation is available yet.

< *ted-database* >

Usage

```
<ted-database-information>
  <ted-database>
    <ted-database-id>ted-database-id</ted-database-id>
    <ted-database-id-overload>ted-database-id-overload</ted-database-id-overload>
    <ted-database-type>ted-database-type</ted-database-type>
    <ted-database-age>ted-database-age</ted-database-age>
    <ted-database-link-in>ted-database-link-in</ted-database-link-in>
    <ted-database-link-out>ted-database-link-out</ted-database-link-out>
    <ted-database-protocol>ted-database-protocol</ted-database-protocol>
    <ted-link>...</ted-link>
  </ted-database>
</ted-database-information>
```

Description MPLS Traffic Engineering Database.

Contents <ted-database-age>—No documentation is available yet.

<ted-database-id>—No documentation is available yet.

<ted-database-id-overload>—No documentation is available yet.

<ted-database-link-in>—No documentation is available yet.

<ted-database-link-out>—No documentation is available yet.

<ted-database-protocol>—No documentation is available yet.

<ted-database-type>—No documentation is available yet.

<ted-link>—No documentation is available yet.

< *ted-database-information* >

Usage

```
<rpc-reply>
  <ted-database-information>
    <ted-database-summary>...</ted-database-summary>
    <ted-database>...</ted-database>
  </ted-database-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ted-database>—MPLS Traffic Engineering Database.

<ted-database-summary>—No documentation is available yet.

< *ted-database-summary* >

Usage

```
<ted-database-information>
  <ted-database-summary>
    <ted-database-iso-count>ted-database-iso-count</ted-database-iso-count>
    <ted-database-inet-count>ted-database-inet-count</ted-database-inet-count>
  </ted-database-summary>
</ted-database-information>
```

Description No documentation is available yet.

Contents <ted-database-inet-count>—No documentation is available yet.

<ted-database-iso-count>—No documentation is available yet.

< *ted-link* >

Usage

```
<ted-database | ted-link-information>
  <ted-link>
    <ted-link-from>ted-link-from</ted-link-from>
    <ted-link-to>ted-link-to</ted-link-to>
    <ted-link-local-address>ted-link-local-address</ted-link-local-address>
    <ted-link-remote-address>ted-link-remote-address</ted-link-remote-address>
    <admin-groups>...</admin-groups>
    <ted-link-metric>ted-link-metric</ted-link-metric>
    <ted-link-link-out>ted-link-link-out</ted-link-link-out>
    <ted-link-static-bandwidth>ted-link-static-bandwidth</ted-link-static-bandwidth>
    <ted-link-reservable-bandwidth>reservable-bandwidth</ted-link-reservable-bandwidth>
    <ted-link-local-bw0>ted-link-local-bw0</ted-link-local-bw0>
    <ted-link-local-bw1>ted-link-local-bw1</ted-link-local-bw1>
    <ted-link-local-bw2>ted-link-local-bw2</ted-link-local-bw2>
    <ted-link-local-bw3>ted-link-local-bw3</ted-link-local-bw3>
    <ted-link-local-bw4>ted-link-local-bw4</ted-link-local-bw4>
    <ted-link-local-bw5>ted-link-local-bw5</ted-link-local-bw5>
    <ted-link-local-bw6>ted-link-local-bw6</ted-link-local-bw6>
    <ted-link-local-bw7>ted-link-local-bw7</ted-link-local-bw7>
    <ted-link-avail-bw0>ted-link-avail-bw0</ted-link-avail-bw0>
    <ted-link-avail-bw1>ted-link-avail-bw1</ted-link-avail-bw1>
    <ted-link-avail-bw2>ted-link-avail-bw2</ted-link-avail-bw2>
    <ted-link-avail-bw3>ted-link-avail-bw3</ted-link-avail-bw3>
    <ted-link-avail-bw4>ted-link-avail-bw4</ted-link-avail-bw4>
    <ted-link-avail-bw5>ted-link-avail-bw5</ted-link-avail-bw5>
    <ted-link-avail-bw6>ted-link-avail-bw6</ted-link-avail-bw6>
    <ted-link-avail-bw7>ted-link-avail-bw7</ted-link-avail-bw7>
  </ted-link>
</ted-database | ted-link-information>
```

Description No documentation is available yet.

Contents <admin-groups>—No documentation is available yet.

<ted-link-avail-bw0>—No documentation is available yet.

<ted-link-avail-bw1>—No documentation is available yet.

<ted-link-avail-bw2>—No documentation is available yet.

<ted-link-avail-bw3>—No documentation is available yet.

<ted-link-avail-bw4>—No documentation is available yet.

<ted-link-avail-bw5>—No documentation is available yet.

<ted-link-avail-bw6>—No documentation is available yet.

<ted-link-avail-bw7>—No documentation is available yet.

<ted-link-from>—No documentation is available yet.

<ted-link-link-out>—No documentation is available yet.

<ted-link-local-address>—No documentation is available yet.

<ted-link-local-bw0>—No documentation is available yet.

<ted-link-local-bw1>—No documentation is available yet.

<ted-link-local-bw2>—No documentation is available yet.

<ted-link-local-bw3>—No documentation is available yet.

<ted-link-local-bw4>—No documentation is available yet.

<ted-link-local-bw5>—No documentation is available yet.

<ted-link-local-bw6>—No documentation is available yet.

<ted-link-local-bw7>—No documentation is available yet.

<ted-link-metric>—No documentation is available yet.

<ted-link-remote-address>—No documentation is available yet.

<ted-link-reservable-bandwidth>—No documentation is available yet.

<ted-link-static-bandwidth>—No documentation is available yet.

<ted-link-to>—No documentation is available yet.

< ted-link-information >

Usage

```
<rpc-reply>
  <ted-link-information>
    <ted-link>...</ted-link>
  </ted-link-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ted-link>—No documentation is available yet.

< *ted-protocol* >

Usage

```
<ted-protocol-information>
  <ted-protocol>
    <ted-protocol-name>ted-protocol-name</ted-protocol-name>
    <ted-protocol-credibility>ted-protocol-credibility</ted-protocol-credibility>
    <ted-protocol-self-node>ted-protocol-self-node</ted-protocol-self-node>
  </ted-protocol>
</ted-protocol-information>
```

Description No documentation is available yet.

Contents <ted-protocol-credibility>—No documentation is available yet.

<ted-protocol-name>—Protocol that filled in the TED entry.

<ted-protocol-self-node>—No documentation is available yet.

< *ted-protocol-information* >

Usage

```
<rpc-reply>
  <ted-protocol-information>
    <ted-protocol>...</ted-protocol>
  </ted-protocol-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <ted-protocol>—No documentation is available yet.

< *tlv-block* >

Usage

```
<ospf-opaque-area-lsa>
  <tlv-block>
    <tlv-type-name>tlv-type-name</tlv-type-name>
    <tlv-type-value>tlv-type-value</tlv-type-value>
    <tlv-length>tlv-length</tlv-length>
    <bytes-left>bytes-left</bytes-left>
    <formatted-tlv-data>formatted-tlv-data</formatted-tlv-data>
  </tlv-block>
</ospf-opaque-area-lsa>
```

Description No documentation is available yet.

Contents <bytes-left>—No documentation is available yet.

<formatted-tlv-data>—No documentation is available yet.

<tlv-length>—No documentation is available yet.

<tlv-type-name>—No documentation is available yet.

<tlv-type-value>—No documentation is available yet.

< *tlv-stragglers* >

Usage

```
<isis-tlv>
  <tlv-stragglers>
    <bytes-left>bytes-left</bytes-left>
  </tlv-stragglers>
</isis-tlv>
```

Description No documentation is available yet.

Contents <bytes-left>—No documentation is available yet.

< *totals-information* >

Usage

```
<isis-statistics>
  <totals-information>
    <packets-received>packets-received</packets-received>
    <packets-sent>packets-sent</packets-sent>
  </totals-information>
</isis-statistics>
```

Description No documentation is available yet.

Contents <packets-received>—No documentation is available yet.

<packets-sent>—No documentation is available yet.

< *tracing-information* >

Usage

```
<bgp-peer | bgp-group>
  <tracing-information>
    <flags>flags</flags>
    <filename>filename</filename>
    <filesize>filesize</filesize>
    <filelimit>filelimit</filelimit>
  </tracing-information>
</bgp-peer | bgp-group>
```

Description No documentation is available yet.

Contents <filelimit>—Maximum number of retained trace files.

<filename>—The name of the trace file.

<filesize>—Maximum size of the trace file.

<flags>—Enabled trace flags.

< *transmission-status* >

Usage

```
<isis-database-entry>
  <transmission-status>
    <transmit-count>transmit-count</transmit-count>
    <message>message</message>
    <interface-name>interface-name</interface-name>
    <transmit-time>transmit-time</transmit-time>
  </transmission-status>
</isis-database-entry>
```

Description No documentation is available yet.

Contents <interface-name>—No documentation is available yet.

<message>—No documentation is available yet.

<transmit-count>—No documentation is available yet.

<transmit-time>—Time at which this message is queued for transmission.

< *unconfigured-peers* >

Usage

```
<bgp-group>
  <unconfigured-peers>
    <route-filter>...</route-filter>
  </unconfigured-peers>
</bgp-group>
```

Description The set of address prefixes from which this group allows peering.

Contents <route-filter>—Entries in martian table.

< *unknown-tlv* >

Usage

```
<isis-tlv>
  <unknown-tlv>
    <isis-tlv-type>isis-tlv-type</isis-tlv-type>
    <tlv-length>tlv-length</tlv-length>
  </unknown-tlv>
</isis-tlv>
```

Description No documentation is available yet.

Contents <isis-tlv-type>—No documentation is available yet.

<tlv-length>—No documentation is available yet.

Summary of SNMP Response Tags

This section lists the tags returned by the JUNOScript server to describe Simple Network Management Protocol (SNMP) settings. The associated XML namespace is http://xml.juniper.net/junos/5.5R1/junos-snmp. To review the DTD for the tags, see "DTD for SNMP Response Tags" on page 1805.

< rmon-alarm >

Usage

```
<rmon-alarm-information>
  <rmon-alarm>
    <alarm-index>alarm-index</alarm-index>
    <var-name>var-name</var-name>
    <var-oid>var-oid</var-oid>
    <sample-type>sample-type</sample-type>
    <alarm-value>alarm-value</alarm-value>
    <startup>startup</startup>
    <alarm-interval>alarm-interval</alarm-interval>
    <rising-threshold>rising-threshold</rising-threshold>
    <falling-threshold>falling-threshold</falling-threshold>
    <rising-event-index>rising-event-index</rising-event-index>
    <falling-event-index>falling-event-index</falling-event-index>
    <alarm-owner>alarm-owner</alarm-owner>
    <alarm-creator>alarm-creator</alarm-creator>
    <alarm-state>alarm-state</alarm-state>
  </rmon-alarm>
</rmon-alarm-information>
```

Description No documentation is available yet.

Contents

<alarm-creator>—Method by which entry was created.

<alarm-index>—Alarm instance identifier.

<alarm-interval>—Interval between samples, in seconds.

<alarm-owner>—Name of owner of this entry.

<alarm-state>—Current state of the entry.

<alarm-value>—Most recently monitored value.

<falling-event-index>—Event generated when a falling alarm is sent.

<falling-threshold>—Falling alarm threshold.

<rising-event-index>—Event generated when a rising alarm is sent.

<rising-threshold>—Rising alarm threshold.

<sample-type>—Method of sampling the monitored variable.

<startup>—Alarm that might be sent when entry is activated.

<var-name>—Monitored variable name.

<var-oid>—Monitored variable OID.

< *rmon-alarm-information* >

Usage

```
<rmon-information>
  <rmon-alarm-information>
    <rmon-alarm>...</rmon-alarm>
  </rmon-alarm-information>
</rmon-information>
```

Description No documentation is available yet.

Contents <rmon-alarm>—No documentation is available yet.

< *rmon-event* >

Usage

```
<rmon-event-information>
  <rmon-event>
    <event-index>event-index</event-index>
    <event-descr>event-descr</event-descr>
    <event-type>event-type</event-type>
    <community>community</community>
    <last-time-sent>last-time-sent</last-time-sent>
    <event-owner>event-owner</event-owner>
    <event-creator>event-creator</event-creator>
    <event-state>event-state</event-state>
  </rmon-event>
</rmon-event-information>
```

Description No documentation is available yet.

Contents <community>—Trap group to which trap is sent.

<event-creator>—Method by which the entry was created.

<event-descr>—Comment describing the event entry.

<event-index>—Event instance identifier.

<event-owner>—Name of owner of the event.

<event-state>—Current state of the entry.

<event-type>—Type of notification made about this event.

<last-time-sent>—Time this event was last generated.

< rmon-event-information >

Usage

```
<rmon-information>
  <rmon-event-information>
    <rmon-event>...</rmon-event>
  </rmon-event-information>
</rmon-information>
```

Description No documentation is available yet.

Contents <rmon-event>—No documentation is available yet.

< rmon-information >

Usage

```
<rpc-reply>
  <rmon-information>
    <rmon-alarm-information>...</rmon-alarm-information>
    <rmon-event-information>...</rmon-event-information>
  </rmon-information>
</rpc-reply>
```

Description No documentation is available yet.

Contents <rmon-alarm-information>—No documentation is available yet.

<rmon-event-information>—No documentation is available yet.

< snmp-input-statistics >

Usage

```
<snmp-statistics>
  <snmp-input-statistics>
    <packets>packets</packets>
    <bad-versions>bad-versions</bad-versions>
    <bad-community-names>bad-community-names</bad-community-names>
    <bad-community-uses>bad-community-uses</bad-community-uses>
    <asn-parse-errors>asn-parse-errors</asn-parse-errors>
    <too-bigs>too-bigs</too-bigs>
    <no-such-names>no-such-names</no-such-names>
    <bad-values>bad-values</bad-values>
    <read-onlys>read-onlys</read-onlys>
    <general-errors>general-errors</general-errors>
    <total-request-varbinds>total-request-varbinds</total-request-varbinds>
    <total-set-varbinds>total-set-varbinds</total-set-varbinds>
    <get-requests>get-requests</get-requests>
    <get-nexts>get-nexts</get-nexts>
    <set-requests>set-requests</set-requests>
    <get-responses>get-responses</get-responses>
    <traps>traps</traps>
    <silent-drops>silent-drops</silent-drops>
    <proxy-drops>proxy-drops</proxy-drops>
  </snmp-input-statistics>
</snmp-statistics>
```

Description No documentation is available yet.

Contents <asn-parse-errors>—No documentation is available yet.

<bad-community-names>—No documentation is available yet.

<bad-community-uses>—No documentation is available yet.

<bad-values>—No documentation is available yet.

<bad-versions>—No documentation is available yet.

<general-errors>—No documentation is available yet.

<get-nexts>—No documentation is available yet.

<get-requests>—No documentation is available yet.

<get-responses>—No documentation is available yet.

<no-such-names>—No documentation is available yet.

<packets>—No documentation is available yet.

<proxy-drops>—No documentation is available yet.

<read-onlys>—No documentation is available yet.

<set-requests>—No documentation is available yet.

<silent-drops>—No documentation is available yet.

<too-bigs>—No documentation is available yet.

<total-request-varbinds>—No documentation is available yet.

<total-set-varbinds>—No documentation is available yet.

<traps>—No documentation is available yet.

< *snmp-output-statistics* >

Usage

```
<snmp-statistics>
  <snmp-output-statistics>
    <packets>packets</packets>
    <too-bigs>too-bigs</too-bigs>
    <no-such-names>no-such-names</no-such-names>
    <bad-values>bad-values</bad-values>
    <general-errors>general-errors</general-errors>
    <get-requests>get-requests</get-requests>
    <get-nexts>get-nexts</get-nexts>
    <set-requests>set-requests</set-requests>
    <get-responses>get-responses</get-responses>
    <traps>traps</traps>
  </snmp-output-statistics>
</snmp-statistics>
```

Description No documentation is available yet.

Contents <bad-values>—No documentation is available yet.

<general-errors>—No documentation is available yet.

<get-nexts>—No documentation is available yet.

<get-requests>—No documentation is available yet.

<get-responses>—No documentation is available yet.

<no-such-names>—No documentation is available yet.

<packets>—No documentation is available yet.

<set-requests>—No documentation is available yet.

<too-bigs>—No documentation is available yet.

<traps>—No documentation is available yet.

< *snmp-statistics* >

Usage

```
<rpc-reply>
  <snmp-statistics>
    <snmp-input-statistics>...</snmp-input-statistics>
    <snmp-output-statistics>...</snmp-output-statistics>
    <sub-agent-control-blocks>...</sub-agent-control-blocks>
    <sub-agent-registration>...</sub-agent-registration>
  </snmp-statistics>
</rpc-reply>
```

Description No documentation is available yet.

Contents <snmp-input-statistics>—No documentation is available yet.

<snmp-output-statistics>—No documentation is available yet.

<sub-agent-control-blocks>—No documentation is available yet.

<sub-agent-registration>—No documentation is available yet.

< *sub-agent-control-blocks* >

Usage

```
<snmp-statistics>
  <sub-agent-control-blocks>
    <total>total</total>
    <currently-active>currently-active</currently-active>
    <max-active>max-active</max-active>
    <not-found>not-found</not-found>
    <timed-out>timed-out</timed-out>
    <max-latency>max-latency</max-latency>
  </sub-agent-control-blocks>
</snmp-statistics>
```

Description No documentation is available yet.

Contents <currently-active>—No documentation is available yet.

<max-active>—No documentation is available yet.

<max-latency>—No documentation is available yet.

<not-found>—No documentation is available yet.

<timed-out>—No documentation is available yet.

<total>—No documentation is available yet.

< sub-agent-registration >

Usage

```
<snmp-statistics>
  <sub-agent-registration>
    <group-registers>group-registers</group-registers>
    <group-deregisters>group-deregisters</group-deregisters>
    <group-removes>group-removes</group-removes>
  </sub-agent-registration>
</snmp-statistics>
```

Description No documentation is available yet.

Contents <group-deregisters>—No documentation is available yet.

<group-registers>—No documentation is available yet.

<group-removes>—No documentation is available yet.

Summary of System Process Information Response Tags

This section lists the tags returned by the JUNOScript server to describe system processes (the information returned by the show system processes CLI command). The associated XML namespace is http://xml.juniper.net/junos/5.5R1/junos-process. To review the DTD for the tags, see "DTD for System Process Information Response Tags" on page 1809.

< command-line-argument >

Usage

```
<command-line-argument-list>
  <command-line-argument>
    <argument-index>argument-index</argument-index>
    <argument>argument</argument>
  </command-line-argument>
</command-line-argument-list>
```

Description No documentation is available yet.

Contents <argument>—The command line argument.

<argument-index>—The command line argument index.

< *command-line-argument-list* >

Usage

```
<process>
  <command-line-argument-list>
    <command-line-argument>...</command-line-argument>
  </command-line-argument-list>
</process>
```

Description The list of arguments that were passed to the command.

Contents <command-line-argument>—No documentation is available yet.

< *memory-statistics* >

Usage

```
<process>
  <memory-statistics>
    <memory-load>memory-load</memory-load>
    <virtual-size>virtual-size</virtual-size>
    <resident-set-size>resident-set-size</resident-set-size>
    <resident-set-before-swap>resident-set-before-swap</resident-set-before-swap>
    <text-size>text-size</text-size>
    <data-size>data-size</data-size>
    <stack-size>stack-size</stack-size>
  </memory-statistics>
</process>
```

Description Memory usage statistics for the process.

Contents <data-size>—Process data segment size, in kilobytes.

<memory-load>—Percentage of memory used by this process.

<resident-set-before-swap>—Resident set size of the process before last swap, in kilobytes.

<resident-set-size>—Resident set size of the process in kilobytes.

<stack-size>—Process stack size, in kilobytes.

<text-size>—Process text segment size, in kilobytes.

<virtual-size>—Virtual size of the process in kilobytes.

< *process* >

Usage

```
<process-information>
  <process>
    <process-id>process-id</process-id>
    <login-id>login-id</login-id>
    <start-time>start-time</start-time>
    <parent-process-id>parent-process-id</parent-process-id>
    <process-group-id>process-group-id</process-group-id>
    <command>command</command>
    <command-line-argument-list>...</command-line-argument-list>
    <terminal-device>terminal-device</terminal-device>
    <priority>priority</priority>
    <nice>nice</nice>
    <process-status>process-status</process-status>
    <process-flags>...</process-flags>
    <sleep-information>...</sleep-information>
    <resource-usage>...</resource-usage>
    <memory-statistics>...</memory-statistics>
  </process>
</process-information>
```

Description Information about a running process.

Contents <command>—The command being executed.

<command-line-argument-list>—The list of arguments that were passed to the command.

<login-id>—The effective login id for the process.

<memory-statistics>—Memory usage statistics for the process.

<nice>—The niceness value applied to the process priority.

<parent-process-id>—Parent process identifier.

<priority>—The priority of the process.

<process-flags>—Process flags.

<process-group-id>—Process group identifier.

<process-id>—Process identifier.

<process-status>—The run status of the process.

<resource-usage>—Resource usage statistics for the process.

<sleep-information>—No documentation is available yet.

<start-time>—UTC time in seconds the process started.

<terminal-device>—The terminal device associated with the process.

< *process-flags* >

Usage

```
<process>
  <process-flags>
    <interruptible/>
    <advisory-lock/>
    <controlling-terminal/>
    <in-memory/>
    <wait-child/>
    <profiling/>
    <select/>
    <set-id-privileges/>
    <system-process/>
    <timing-out/>
    <debug-trace/>
    <debug-wait/>
    <exiting/>
    <exec/>
  </process-flags>
</process>
```

Description Process flags.

Contents <advisory-lock>—Process may hold a POSIX advisory lock.

<controlling-terminal>—Process has a controlling terminal.

<debug-trace>—Debugged process being traced.

<debug-wait>—Debugging process has waited for child.

<exec>—Process called exec.

<exiting>—Process is working on exiting.

<in-memory>—Process is loaded into memory.

<interruptible>—Process is in an interruptible sleep.

<profiling>—Process has started profiling.

<select>—Process is waiting on select system call.

<set-id-privileges>—Process has set id privileges since last exec.

<system-process>—Process is a system process—no signals, stats, or swapping.

<timing-out>—Process is timing out during sleep.

<wait-child>—Process is waiting for child to exec or exit.

< *process-information* >

Usage

```
<rpc-reply>
  <process-information>
    <scale-information>...</scale-information>
    <process>...</process>
  </process-information>
</rpc-reply>
```

Description Information about running processes.

Contents <process>—Information about a running process.

<scale-information>—Information about values used in computing scales for this report.

< *resource-usage* >

Usage

```
<process>
  <resource-usage>
    <cpu-load>cpu-load</cpu-load>
    <user-time>user-time</user-time>
    <system-time>system-time</system-time>
    <maximum-resident-set>maximum-resident-set</maximum-resident-set>
    <page-reclaims>page-reclaims</page-reclaims>
    <page-faults>page-faults</page-faults>
    <swaps>swaps</swaps>
    <block-input-operation>block-input-operation</block-input-operation>
    <block-output-operation>block-output-operation</block-output-operation>
    <messages-sent>messages-sent</messages-sent>
    <messages-received>messages-received</messages-received>
    <signals>signals</signals>
    <voluntary-context-switch>voluntary-context-switch</voluntary-context-switch>
    <involuntary-context-switch>involuntary-context-switch</involuntary-context-switch>
  </resource-usage>
</process>
```

Description Resource usage statistics for the process.

Contents <block-input-operation>—Block input operations by the process.

<block-output-operation>—Block output operations by the process.

<cpu-load>—Percentage of CPU time used by this process.

<involuntary-context-switch>—Involuntary context switches for the process.

<maximum-resident-set>—Max resident set size for the process.

<messages-received>—Messages received by the process.

<messages-sent>—Messages sent by the process.

<page-faults>—Page faults incurred by the process.

<page-reclaims>—Page reclaims by the process.

<signals>—Signals received by the process.

<swaps>—Number of process swaps for the process.

<system-time>—System CPU time for the process.

<user-time>—User CPU time for the process.

<voluntary-context-switch>—Voluntary context switches for the process.

< scale-information >

Usage

```
<process-information>
  <scale-information>
    <memory-page-size>memory-page-size</memory-page-size>
    <physical-memory-pages>physical-memory-pages</physical-memory-pages>
  </scale-information>
</process-information>
```

Description Information about values used in computing scales for this report.

Contents <memory-page-size>—Memory page size for platform, in bytes.

<physical-memory-pages>—Maximum number of physical memory pages.

< sleep-information >

Usage

```
<process>
  <sleep-information>
    <reason>reason</reason>
    <address>address</address>
  </sleep-information>
</process>
```

Description No documentation is available yet.

Contents <address>—Sleep address.

<reason>—Reason for sleeping.

Summary of UDP Forwarding Helper Response Tags

This section lists the tags returned by the JUNOScript server to describe output from the User Datagram Protocol (UDP) forwarding helper. The associated XML namespace is http://xml.juniper.net/junos/5.5R1/junos-helper. To review the DTD for the tags, see "DTD for UDP Forwarding Helper Response Tags" on page 1813.

< helper-statistics-information >

Usage

```
<rpc-reply>
  <helper-statistics-information>
    <helper-statistics-service-information>...</helper-statistics-service-information>
  </helper-statistics-information>
</rpc-reply>
```

Description Port forwarding helper statistics.

Contents <helper-statistics-service-information>—Port forwarding helper statistics for a particular service.

< helper-statistics-service-information >

Usage

```
<helper-statistics-information>
  <helper-statistics-service-information>
    <service-name>service-name</service-name>
    <received-packets>received-packets</received-packets>
    <forwarded-packets>forwarded-packets</forwarded-packets>
    <dropped-packets>dropped-packets</dropped-packets>
    <dropped-packets-nointerface>dropped-packets</dropped-packets-nointerface>
    <dropped-packets-badread>dropped-packets-badread</dropped-packets-badread>
    <dropped-packets-badsend>dropped-packets-badsend</dropped-packets-badsend>
  </helper-statistics-service-information>
</helper-statistics-information>
```

Description Port forwarding helper statistics for a particular service.

Contents <dropped-packets>—Number of packets dropped.

<dropped-packets-badread>—Number of packets dropped because of an error during the packet read.

<dropped-packets-badsend>—Number of packets dropped because of an error during the packet send.

<dropped-packets-nointerface>—Number of packets dropped because of no interface.

<forwarded-packets>—Number of packets forwarded.

<received-packets>—Number of packets received.

<service-name>—Name of this service.

Chapter 5
Summary of Configuration Tags

This chapter lists the tags that describe a router's configuration. The tag names are in alphabetical order. For information about the notation used in this chapter, see "Conventions for Tag Summaries" on page lxxiv.

> **Note**
> Every tag in this chapter optionally accepts the <apply-groups> tag as one of its children. For brevity, the reference entries do not list the tag as a child. For information about this tag, see <apply-groups> on page 405.

<access> (configuration)

Usage

```
<configuration>
  <access>
    <profile>...</profile>
    <traceoptions>...</traceoptions>
  </access>
</configuration>
```

Description Network access configuration.

Contents <profile>—Set of attributes that define access.

<traceoptions>—Network access daemon tracing options.

<access> (configuration/snmp)

Usage

```
<configuration>
  <snmp>
    <access>
      <user>...</user>
      <group>...</group>
      <context>...</context>
    </access>
  </snmp>
</configuration>
```

Description SNMPv3 access information.

Contents <context>—SNMPv3 context information.

<group>—SNMPv3 USM group information.

<user>—SNMPv3 USM user information.

<accounting> (configuration/interfaces/interface/unit/family/inet)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <accounting>
              <source-class-usage>...</source-class-usage>
              <destination-class-usage/>
            </accounting>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Configure interface-based accounting options.

Contents <destination-class-usage>—Enable destination class usage on this interface.

<source-class-usage>—No documentation is available yet.

<accounting> (configuration/interfaces/interface/unit/family/inet6)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet6>
            <accounting>
              <source-class-usage>...</source-class-usage>
              <destination-class-usage/>
            </accounting>
          </inet6>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Configure interface-based accounting options.

Contents <destination-class-usage>—Enable destination class usage on this interface.

<source-class-usage>—No documentation is available yet.

<accounting> (configuration/services/ggsn/apn/radius)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <radius>
          <accounting>
            <message-attributes>...</message-attributes>
          </accounting>
        </radius>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description RADIUS accounting settings.

Contents <message-attributes>—Attributes in RADIUS messages.

<accounting-options> (configuration)

Usage

```
<configuration>
  <accounting-options>
    <file>...</file>
    <interface-profile>...</interface-profile>
    <filter-profile>...</filter-profile>
    <class-usage-profile>...</class-usage-profile>
    <routing-engine-profile>...</routing-engine-profile>
  </accounting-options>
</configuration>
```

Description Accounting data configuration.

Contents <class-usage-profile>—Class usage profile for accounting data.

<file>—Accounting data file configuration.

<filter-profile>—Filter profile for accounting data.

<interface-profile>—Interface profile for accounting data.

<routing-engine-profile>—Routing Engine profile for accounting data.

<accounting-profile> (configuration / firewall / family / inet / filter)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <accounting-profile>
            <name>name</name>     <!-- identifier -->
          </accounting-profile>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Accounting profile name.

Contents <name>—Accounting profile name.

<accounting-profile> (configuration / firewall / family / inet6 / filter)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <accounting-profile>
            <name>name</name>     <!-- identifier -->
          </accounting-profile>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Accounting profile name.

Contents <name>—Accounting profile name.

<accounting-profile> (configuration / firewall / family / mpls / filter)

Usage

```
<configuration>
  <firewall>
    <family>
      <mpls>
        <filter>
          <accounting-profile>
            <name>name</name>     <!-- identifier -->
          </accounting-profile>
        </filter>
      </mpls>
    </family>
  </firewall>
</configuration>
```

Description Accounting profile name.

Contents <name>—Accounting profile name.

<accounting-profile> (configuration / firewall / filter)

Usage

```
<configuration>
  <firewall>
    <filter>
      <accounting-profile>
        <name>name</name>     <!-- identifier -->
      </accounting-profile>
    </filter>
  </firewall>
</configuration>
```

Description Accounting profile name.

Contents <name>—Accounting profile name.

<accounting-server> (configuration/services/ggsn/apn/radius)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <radius>
          <accounting-server>
            <name>name</name>     <!-- identifier -->
            <timeout>seconds</timeout>
            <retry>retry</retry>
            <port>port</port>
            <secret>secret</secret>     <!-- mandatory -->
            <serverdown-timeout>seconds</serverdown-timeout>
          </accounting-server>
        </radius>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description RADIUS server for accounting.

Contents <name>—RADIUS server address.

<port>—Port number for RADIUS messages.

<retry>—Retry attempts.

<secret>—Shared secret with the RADIUS server.

<serverdown-timeout>—Time before retrying requests to a down server.

<timeout>—Request timeout period.

<accounting-server> (configuration/services/ggsn/apn/radius/outband-server)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <radius>
          <outband-server>
            <accounting-server>
              <name>name</name>     <!-- identifier -->
            </accounting-server>
          </outband-server>
        </radius>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description Shared RADIUS accounting server.

Contents <name>—Name of outband GGSN RADIUS server.

<address> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <address>
                <name>name</name>     <!-- identifier -->
                <except/>
              </address>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match IP source or destination address.

Contents <except>—Match address not in this prefix.

<name>—Prefix to match.

<address> (configuration / firewall / family / inet6 / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <address>
                <name>name</name>     <!-- identifier -->
                <except/>
              </address>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Match IP source or destination address.

Contents <except>—Match address not in this prefix.

<name>—Prefix to match.

<address> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <address>
            <name>name</name>     <!-- identifier -->
            <except/>
          </address>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match IP source or destination address.

Contents <except>—Match address not in this prefix.

<name>—Prefix to match.

<address> (configuration / interfaces / interface / unit / family / inet)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <address>
              <name>name</name>     <!-- identifier -->
              <destination>destination</destination>
              <broadcast>broadcast</broadcast>
              <primary/>
              <preferred/>
              <multipoint-destination>...</multipoint-destination>
              <arp>...</arp>
              <vrrp-group>...</vrrp-group>
            </address>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Interface address or destination prefix.

Contents <arp>—Static ARP entries.

<broadcast>—Broadcast address.

<destination>—Destination address.

<multipoint-destination>—Multipoint NBMA destination.

<name>—Interface address or destination prefix.

<preferred>—Preferred address on interface.

<primary>—Candidate for primary address in system.

<vrrp-group>—VRRP group.

<address> (configuration/interfaces/interface/unit/family/inet6)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet6>
            <address>
              <name>name</name>     <!-- identifier -->
              <destination>destination</destination>
              <eui-64/>
              <primary/>
              <preferred/>
            </address>
          </inet6>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Interface address or destination prefix.

Contents <destination>—Destination address.

<eui-64>—Generate EUI-64 interface ID.

<name>—Interface address or destination prefix.

<preferred>—Preferred address on interface.

<primary>—Candidate for primary address in system.

<address> (configuration/protocols/pim/rp/static)

Usage

```
<configuration>
  <protocols>
    <pim>
      <rp>
        <static>
          <address>
            <name>name</name>     <!-- identifier -->
            <version>version</version>
            <group-ranges>...</group-ranges>
          </address>
        </static>
      </rp>
    </pim>
  </protocols>
</configuration>
```

Description RP address.

Contents <group-ranges>—Group address range of RP.

<name>—IP address of RP.

<version>—PIM version of RP.

<address> (configuration/protocols/router-discovery)

Usage

```
<configuration>
  <protocols>
    <router-discovery>
      <address>
        <name>name</name>     <!-- identifier -->
        <advertise/>
        <ignore/>
        <broadcast/>
        <multicast/>
        <ineligible/>
        <priority>priority</priority>
      </address>
    </router-discovery>
  </protocols>
</configuration>
```

Description IP addresses to include in advertisements.

Contents <advertise>—Advertise the IP address in advertisements.

<broadcast>—Include IP address only in broadcast advertisements.

<ignore>—Do not advertise the IP address in advertisements.

<ineligible>—IP address can never become a default router.

<multicast>—Include IP address only in multicast advertisements.

<name>—IP addresses to include in router advertisements.

<priority>—Preference of the address to become a default router.

<address> (configuration/routing-instances/instance/protocols/pim/rp/static)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <rp>
            <static>
              <address>
                <name>name</name>     <!-- identifier -->
                <version>version</version>
                <group-ranges>...</group-ranges>
              </address>
            </static>
          </rp>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description RP address.

Contents <group-ranges>—Group address range of RP.

<name>—IP address of RP.

<version>—PIM version of RP.

<address> (configuration/routing-instances/instance/protocols/router-discovery)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <router-discovery>
          <address>
            <name>name</name>     <!-- identifier -->
            <advertise/>
            <ignore/>
            <broadcast/>
            <multicast/>
            <ineligible/>
            <priority>priority</priority>
          </address>
        </router-discovery>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description IP addresses to include in advertisements.

Contents <advertise>—Advertise the IP address in advertisements.

<broadcast>—Include IP address only in broadcast advertisements.

<ignore>—Do not advertise the IP address in advertisements.

<ineligible>—IP address can never become a default router.

<multicast>—Include IP address only in multicast advertisements.

<name>—IP addresses to include in router advertisements.

<priority>—Preference of the address to become a default router.

<addressing> (configuration/services/ggsn/apn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <addressing>
          <name>name</name>     <!-- identifier -->
        </addressing>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description APN address range.

Contents <name>—Address range for APN network.

<admin-group> (configuration/protocols/mpls)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <admin-group>
        <include>...</include>
        <exclude>...</exclude>
      </admin-group>
    </mpls>
  </protocols>
</configuration>
```

Description Administrative group policy.

Contents <exclude>—Groups to reject.

<include>—Groups to require.

<admin-group> (configuration/protocols/mpls/interface)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <interface>
        <admin-group>
          <name>name</name>     <!-- identifier -->
        </admin-group>
      </interface>
    </mpls>
  </protocols>
</configuration>
```

Description Administrative groups.

Contents <name>—Administrative groups.

<admin-group> (configuration/protocols/mpls/label-switched-path)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <admin-group>
          <include>...</include>
          <exclude>...</exclude>
        </admin-group>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Administrative group policy.

Contents <exclude>—Groups to reject.

<include>—Groups to require.

<admin-group> (configuration/protocols/mpls/label-switched-path/primary)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <primary>
          <admin-group>
            <include>...</include>
            <exclude>...</exclude>
          </admin-group>
        </primary>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Administrative group policy.

Contents <exclude>—Groups to reject.

<include>—Groups to require.

<admin-group> (configuration/protocols/mpls/label-switched-path/secondary)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <secondary>
          <admin-group>
            <include>...</include>
            <exclude>...</exclude>
          </admin-group>
        </secondary>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Administrative group policy.

Contents <exclude>—Groups to reject.

<include>—Groups to require.

<admin-groups> (configuration/protocols/mpls)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <admin-groups>
        <name>name</name>     <!-- identifier -->
        <group-value>group-value</group-value>
      </admin-groups>
    </mpls>
  </protocols>
</configuration>
```

Description Administrative groups.

Contents <group-value>—Group bit position.

<name>—Group name.

<aggregate> (configuration / routing-instances / instance / routing-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <defaults>...</defaults>
          <route>...</route>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Coalesced routes.

Contents <defaults>—Global route options.

<route>—Individual route options.

<aggregate> (configuration / routing-instances / instance / routing-options / rib)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <defaults>...</defaults>
            <route>...</route>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Coalesced routes.

Contents <defaults>—Global route options.

<route>—Individual route options.

<aggregate> (configuration/routing-options)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <defaults>...</defaults>
      <route>...</route>
    </aggregate>
  </routing-options>
</configuration>
```

Description Coalesced routes.

Contents <defaults>—Global route options.

<route>—Individual route options.

<aggregate> (configuration/routing-options/rib)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <defaults>...</defaults>
        <route>...</route>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Coalesced routes.

Contents <defaults>—Global route options.

<route>—Individual route options.

<aggregated-devices> (configuration/chassis)

Usage

```
<configuration>
  <chassis>
    <aggregated-devices>
      <ethernet>...</ethernet>
      <sonet>...</sonet>
    </aggregated-devices>
  </chassis>
</configuration>
```

Description Aggregated devices configuration.

Contents <ethernet>—Aggregated device options for Ethernet.

<sonet>—Aggregated device options for POS.

<aggregated-ether-options> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <aggregated-ether-options>
        <loopback/>
        <flow-control/>
        <source-filtering/>
        <source-address-filter>...</source-address-filter>
        <minimum-links>minimum-links</minimum-links>
        <link-speed>link-speed-choice</link-speed>
      </aggregated-ether-options>
    </interface>
  </interfaces>
</configuration>
```

Description Aggregated Ethernet interface-specific options.

Contents <flow-control>—Enable flow control.

<link-speed>—Link speed of individual interface that joins the AE.

- 100m—Links are 100M.
- 10g—Links are 10G.
- 1g—Links are 1G.

<loopback>—Enable loopback.

<minimum-links>—Minimum number of aggregated links.

<source-address-filter>—Source address filters.

<source-filtering>—Enable source address filtering.

<aggregated-sonet-options> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <aggregated-sonet-options>
        <minimum-links>minimum-links</minimum-links>
        <link-speed>link-speed-choice</link-speed>
      </aggregated-sonet-options>
    </interface>
  </interfaces>
</configuration>
```

Description Aggregated SONET interface-specific options.

Contents <link-speed>—Aggregated links speed.

- oc12—Links are OC-12c or STM-4c.
- oc192—Links are OC-192c or STM-64c.
- oc3—Links are OC-3c or STM-1c.
- oc48—Links are OC-48c or STM-16c.

<minimum-links>—Minimum number of aggregated links.

<aggregation> (configuration/forwarding-options/sampling/output/cflowd)

Usage

```
<configuration>
  <forwarding-options>
    <sampling>
      <output>
        <cflowd>
          <aggregation>
            <autonomous-system/>
            <protocol-port/>
            <source-prefix/>
            <destination-prefix/>
            <source-destination-prefix>...</source-destination-prefix>
          </aggregation>
        </cflowd>
      </output>
    </sampling>
  </forwarding-options>
</configuration>
```

Description Aggregations to perform for exported flows (version 8 only).

Contents <autonomous-system>—Aggregate by autonomous system number.

<destination-prefix>—Aggregate by destination prefix.

<protocol-port>—Aggregate by protocol and port number.

<source-destination-prefix>—Aggregate by source and destination prefix.

<source-prefix>—Aggregate by source prefix.

<ah-spi> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <ah-spi>
                <name>name</name>     <!-- identifier -->
              </ah-spi>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match IPSec AH SPI value.

Contents <name>—Range of values.

<ah-spi> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <ah-spi>
            <name>name</name>     <!-- identifier -->
          </ah-spi>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match IPSec AH SPI value.

Contents <name>—Range of values.

<ah-spi-except> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <ah-spi-except>
                <name>name</name>     <!-- identifier -->
              </ah-spi-except>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Do not match IPSec AH SPI value.

Contents <name>—Range of values.

<ah-spi-except> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <ah-spi-except>
            <name>name</name>     <!-- identifier -->
          </ah-spi-except>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Do not match IPSec AH SPI value.

Contents <name>—Range of values.

<alarm> (configuration/chassis)

Usage

```
<configuration>
  <chassis>
    <alarm>
      <management-ethernet>...</management-ethernet>
      <sonet>...</sonet>
      <t3>...</t3>
      <e3>...</e3>
      <ds1>...</ds1>
      <ethernet>...</ethernet>
    </alarm>
  </chassis>
</configuration>
```

Description Global alarm settings.

Contents <ds1>—DS-1 alarms.

<e3>—E3 alarms.

<ethernet>—Ethernet alarms.

<management-ethernet>—Management Ethernet alarms.

<sonet>—SONET alarms.

<t3>—DS-3 alarms.

<alarm> (configuration/snmp/rmon)

Usage

```
<configuration>
  <snmp>
    <rmon>
      <alarm>
        <name>name</name>     <!-- identifier -->
        <description>description</description>
        <interval>seconds</interval>
        <variable>variable</variable>     <!-- mandatory -->
        <sample-type>sample-type-choice</sample-type>     <!-- mandatory -->
        <startup-alarm>startup-alarm-choice</startup-alarm>
        <rising-threshold>rising-threshold</rising-threshold>     <!-- mandatory -->
        <falling-threshold>falling-threshold</falling-threshold>
        <rising-event-index>rising-event-index</rising-event-index>
        <falling-event-index>falling-event-index</falling-event-index>
      </alarm>
    </rmon>
  </snmp>
</configuration>
```

Description RMON alarm entries.

Contents <description>—General description of alarm (stored in alarmOwner).

<falling-event-index>—Event triggered after falling threshold is crossed.

<falling-threshold>—The falling threshold.

<interval>—Interval between samples.

<name>—RMON alarm identifier.

<rising-event-index>—Event triggered after rising threshold is crossed.

<rising-threshold>—The rising threshold.

<sample-type>—Method of sampling the selected variable.

- absolute-value—Absolute sample value is used.
- delta-value—Difference between sampled values is used.

<startup-alarm>—The alarm that may be sent upon entry startup.

- falling-alarm—Falling alarm may be sent at startup.
- rising-alarm—Rising alarm may be sent at startup.
- rising-or-falling-alarm—Rising or falling alarm may be sent at startup.

<variable>—OID of MIB variable to be monitored.

<alias> (configuration/system/static-host-mapping)

Usage

```
<configuration>
  <system>
    <static-host-mapping>
      <alias>
        <name>name</name>     <!-- identifier -->
      </alias>
    </static-host-mapping>
  </system>
</configuration>
```

Description Hostname alias.

Contents <name>—Hostname alias.

<allow> (configuration/protocols/bgp/group)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <allow>
          <name>name</name>     <!-- identifier -->
        </allow>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Configure peer connections for specific networks.

Contents <name>—Configure peer connections for specific networks.

<allow> (configuration/routing-instances/instance/protocols/bgp/group)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <allow>
              <name>name</name>     <!-- identifier -->
            </allow>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure peer connections for specific networks.

Contents <name>—Configure peer connections for specific networks.

<any> (configuration/protocols/bgp/family/inet)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <any>
            <prefix-limit>...</prefix-limit>
            <rib-group>...</rib-group>
          </any>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Include unicast or multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<any> (configuration/protocols/bgp/family/inet-vpn)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet-vpn>
          <any>
            <prefix-limit>...</prefix-limit>
            <rib-group>...</rib-group>
          </any>
        </inet-vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Include unicast or multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<any> (configuration/protocols/bgp/family/inet6)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <any>
            <prefix-limit>...</prefix-limit>
            <rib-group>...</rib-group>
          </any>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Include unicast or multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<any> (configuration/protocols/bgp/group/family/inet)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <any>
              <prefix-limit>...</prefix-limit>
              <rib-group>...</rib-group>
            </any>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include unicast or multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<any> (configuration/protocols/bgp/group/family/inet-vpn)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet-vpn>
            <any>
              <prefix-limit>...</prefix-limit>
              <rib-group>...</rib-group>
            </any>
          </inet-vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include unicast or multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<any> (configuration/protocols/bgp/group/family/inet6)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <any>
              <prefix-limit>...</prefix-limit>
              <rib-group>...</rib-group>
            </any>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include unicast or multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<any> (configuration/protocols/bgp/group/neighbor/family/inet)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <any>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </any>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include unicast or multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<any> (configuration/protocols/bgp/group/neighbor/family/inet-vpn)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet-vpn>
              <any>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </any>
            </inet-vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include unicast or multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<any> (configuration/protocols/bgp/group/neighbor/family/inet6)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <any>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </any>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include unicast or multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<any> (configuration/routing-instances/instance/protocols/bgp/family/inet)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <any>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </any>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include unicast or multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<any> (configuration/routing-instances/instance/protocols/bgp/family/inet-vpn)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet-vpn>
              <any>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </any>
            </inet-vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include unicast or multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<any> (configuration/routing-instances/instance/protocols/bgp/family/inet6)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <any>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </any>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include unicast or multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<any> (configuration/routing-instances/instance/protocols/bgp/group/family/inet)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <any>
                  <prefix-limit>...</prefix-limit>
                  <rib-group>...</rib-group>
                </any>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include unicast or multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<any> (configuration/routing-instances/instance/protocols/bgp/group/family/inet-vpn)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet-vpn>
                <any>
                  <prefix-limit>...</prefix-limit>
                  <rib-group>...</rib-group>
                </any>
              </inet-vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include unicast or multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<any> (configuration/routing-instances/instance/protocols/bgp/group/family/inet6)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <protocols>
            <bgp>
               <group>
                  <family>
                     <inet6>
                        <any>
                           <prefix-limit>...</prefix-limit>
                           <rib-group>...</rib-group>
                        </any>
                     </inet6>
                  </family>
               </group>
            </bgp>
         </protocols>
      </instance>
   </routing-instances>
</configuration>
```

Description Include unicast or multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<any> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <any>
                    <prefix-limit>...</prefix-limit>
                    <rib-group>...</rib-group>
                  </any>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include unicast or multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<any> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet-vpn)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet-vpn>
                  <any>
                    <prefix-limit>...</prefix-limit>
                    <rib-group>...</rib-group>
                  </any>
                </inet-vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include unicast or multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<any> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet6)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <any>
                    <prefix-limit>...</prefix-limit>
                    <rib-group>...</rib-group>
                  </any>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include unicast or multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<apn> (configuration/services/ggsn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <name>name</name>     <!-- identifier -->
        <addressing>...</addressing>     <!-- mandatory -->
        <access-type>access-type-choice</access-type>
        <routing-instance>...</routing-instance>
        <gi-address-range>gi-address-range</gi-address-range>
        <pdp-context>...</pdp-context>     <!-- mandatory -->
        <radius>...</radius>
        <dhcp>...</dhcp>
        <name-server>...</name-server>
        <bandwidth-constraint>...</bandwidth-constraint>
        <quality-of-service>...</quality-of-service>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description Access point configuration.

Contents <access-type>—Type of APN.

- public—Publicly accessible APN.
- restricted—Subscribed access only.

<addressing>—APN address range.

<bandwidth-constraint>—APN bandwidth constraints.

<dhcp>—DHCP server configuration.

<gi-address-range>—Address range to use in APN routing instance.

<name>—Access point identifier.

<name-server>—DNS name servers.

<pdp-context>—No documentation is available yet.

<quality-of-service>—APN quality-of-service mapping.

<radius>—RADIUS server configuration.

<routing-instance>—Routing instance for APN.

<apn> (configuration/services/ggsn/logical-apn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <logical-apn>
        <apn>
          <default>default</default>
          <selectable>...</selectable>
        </apn>
      </logical-apn>
    </ggsn>
  </services>
</configuration>
```

Description No documentation is available yet.

Contents <default>—APN used when not using username-based selection.

<selectable>—APNs available to username-based selection.

<apply-groups>

Usage

```
<!-- any tag -->
  <apply-groups>
    <name>value</name>     <!-- identifier -->
  </apply-groups>
<!-- any tag -->
```

Description Groups from which to inherit configuration data.

Contents <name>—Groups from which to inherit configuration data.

<aps> (configuration/interfaces/interface/sonet-options)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <sonet-options>
        <aps>
          <working-circuit>working-circuit</working-circuit>
          <protect-circuit>protect-circuit</protect-circuit>
          <neighbor>neighbor</neighbor>
          <paired-group>paired-group</paired-group>
          <authentication-key>...</authentication-key>
          <advertise-interval>milliseconds</advertise-interval>
          <hold-time>milliseconds</hold-time>
          <revert-time>seconds</revert-time>
          <request>request-choice</request>
          <force>force-choice</force>
          <lockout/>
        </aps>
      </sonet-options>
    </interface>
  </interfaces>
</configuration>
```

Description Automatic Protection Switching.

Contents <advertise-interval>—Advertise interval.

<authentication-key>—Authentication parameters.

<force>—Force circuit state.

- protect—Force protect circuit.
- working—Force working circuit.

<hold-time>—Hold time.

<lockout>—Lockout protection.

<neighbor>—Neighbor address.

<paired-group>—Name of paired APS group.

<protect-circuit>—Protect circuit group name.

<request>—Request circuit state.

- protect—Request protect circuit.
- working—Request working circuit.

<revert-time>—Circuit revert time.

<working-circuit>—Working circuit group name.

<archive> (configuration/system/syslog)

Usage

```
<configuration>
  <system>
    <syslog>
      <archive>
        <size>bytes</size>
        <files>files</files>
        <world-readable/>
      </archive>
    </syslog>
  </system>
</configuration>
```

Description Archive file information.

Contents <files>—Number of files to be archived.

<size>—Size of files to be archived.

<world-readable>—Allow any user to read the log file.

<archive> (configuration/system/syslog/file)

Usage

```
<configuration>
  <system>
    <syslog>
      <file>
        <archive>
          <size>bytes</size>
          <files>files</files>
          <world-readable/>
        </archive>
      </file>
    </syslog>
  </system>
</configuration>
```

Description Archive file information.

Contents <files>—Number of files to be archived.

<size>—Size of files to be archived.

<world-readable>—Allow any user to read the log file.

<archive-sites> (configuration/accounting-options/file)

Usage

```
<configuration>
  <accounting-options>
    <file>
      <archive-sites>
        <name>name</name>     <!-- identifier -->
      </archive-sites>
    </file>
  </accounting-options>
</configuration>
```

Description No documentation is available yet.

Contents <name>—Primary and failover URLs to receive archive files.

<area> (configuration/protocols/ospf)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <area>
        <name>name</name>     <!-- identifier -->
        <stub>...</stub>
        <nssa>...</nssa>
        <area-range>...</area-range>
        <authentication-type>authentication-type-choice</authentication-type>
        <virtual-link>...</virtual-link>
        <interface>...</interface>
        <label-switched-path>...</label-switched-path>
      </area>
    </ospf>
  </protocols>
</configuration>
```

Description Configure an OSPF area.

Contents <area-range>—Configure area ranges.

<authentication-type>—Authentication type.

- md5—MD5 authentication.
- none—No authentication.
- simple—Simple password authentication.

<interface>—Include an interface in this area.

<label-switched-path>—Configuration for advertisement of a label-switched path.

<name>—Area ID.

<nssa>—Configure a not-so-stubby area.

<stub>—Configure a stub area.

<virtual-link>—Configure virtual links.

<area> (configuration/protocols/ospf3)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <area>
        <name>name</name>     <!-- identifier -->
        <stub>...</stub>
        <nssa>...</nssa>
        <area-range>...</area-range>
        <authentication-type>authentication-type-choice</authentication-type>
        <virtual-link>...</virtual-link>
        <interface>...</interface>
        <label-switched-path>...</label-switched-path>
      </area>
    </ospf3>
  </protocols>
</configuration>
```

Description Configure an OSPF area.

Contents <area-range>—Configure area ranges.

<authentication-type>—Authentication type.

- md5—MD5 authentication.
- none—No authentication.
- simple—Simple password authentication.

<interface>—Include an interface in this area.

<label-switched-path>—Configuration for advertisement of a label-switched path.

<name>—Area ID.

<nssa>—Configure a not-so-stubby area.

<stub>—Configure a stub area.

<virtual-link>—Configure virtual links.

<area> (configuration/routing-instances/instance/protocols/ospf)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <area>
            <name>name</name>     <!-- identifier -->
            <stub>...</stub>
            <nssa>...</nssa>
            <area-range>...</area-range>
            <authentication-type>authentication-type-choice</authentication-type>
            <virtual-link>...</virtual-link>
            <interface>...</interface>
            <label-switched-path>...</label-switched-path>
          </area>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure an OSPF area.

Contents <area-range>—Configure area ranges.

<authentication-type>—Authentication type.

- md5—MD5 authentication.
- none—No authentication.
- simple—Simple password authentication.

<interface>—Include an interface in this area.

<label-switched-path>—Configuration for advertisement of a label-switched path.

<name>—Area ID.

<nssa>—Configure a not-so-stubby area.

<stub>—Configure a stub area.

<virtual-link>—Configure virtual links.

<area-range> (configuration/protocols/ospf/area)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <area>
        <area-range>
          <name>name</name>     <!-- identifier -->
          <restrict/>
        </area-range>
      </area>
    </ospf>
  </protocols>
</configuration>
```

Description Configure area ranges.

Contents <name>—Range to summarize this area.

<restrict>—Restrict advertisement of this area range.

<area-range> (configuration/protocols/ospf/area/nssa)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <area>
        <nssa>
          <area-range>
            <name>name</name>     <!-- identifier -->
            <restrict/>
          </area-range>
        </nssa>
      </area>
    </ospf>
  </protocols>
</configuration>
```

Description Configure NSSA area ranges.

Contents <name>—Range to summarize NSSA routes in this area.

<restrict>—Restrict advertisement of this area range.

<area-range> (configuration/protocols/ospf3/area)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <area>
        <area-range>
          <name>name</name>     <!-- identifier -->
          <restrict/>
        </area-range>
      </area>
    </ospf3>
  </protocols>
</configuration>
```

Description Configure area ranges.

Contents <name>—Range to summarize this area.

<restrict>—Restrict advertisement of this area range.

<area-range> (configuration/protocols/ospf3/area/nssa)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <area>
        <nssa>
          <area-range>
            <name>name</name>     <!-- identifier -->
            <restrict/>
          </area-range>
        </nssa>
      </area>
    </ospf3>
  </protocols>
</configuration>
```

Description Configure NSSA area ranges.

Contents <name>—Range to summarize NSSA routes in this area.

<restrict>—Restrict advertisement of this area range.

<area-range> (configuration/routing-instances/instance/protocols/ospf/area)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <area>
            <area-range>
              <name>name</name>     <!-- identifier -->
              <restrict/>
            </area-range>
          </area>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure area ranges.

Contents <name>—Range to summarize this area.

<restrict>—Restrict advertisement of this area range.

<area-range> (configuration/routing-instances/instance/protocols/ospf/area/nssa)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <area>
            <nssa>
              <area-range>
                <name>name</name>     <!-- identifier -->
                <restrict/>
              </area-range>
            </nssa>
          </area>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure NSSA area ranges.

Contents <name>—Range to summarize NSSA routes in this area.

<restrict>—Restrict advertisement of this area range.

<arp> (configuration/interfaces/interface/unit/family/inet/address)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <address>
              <arp>
                <name>name</name>     <!-- identifier -->
                <mac>mac</mac>
                <multicast-mac>multicast-mac</multicast-mac>
                <publish/>
              </arp>
            </address>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Static ARP entries.

Contents <mac>—MAC address.

<multicast-mac>—Multicast MAC address.

<name>—Destination IP address.

<publish>—Reply to ARP requests for this entry.

<as-path> (configuration/policy-options)

Usage

```
<configuration>
  <policy-options>
    <as-path>
      <name>name</name>     <!-- identifier -->
      <path>path</path>
    </as-path>
  </policy-options>
</configuration>
```

Description BGP autonomous system path regular expression.

Contents <name>—Name to identify AS path regular expression.

<path>—AS path regular expression.

<as-path> (configuration / policy-options / policy-statement / from)

Usage

```
<configuration>
   <policy-options>
      <policy-statement>
         <from>
            <as-path>
               <name>name</name>     <!-- identifier -->
            </as-path>
         </from>
      </policy-statement>
   </policy-options>
</configuration>
```

Description Name of AS path regular expression (BGP only).

Contents <name>—Name of AS path regular expression (BGP only).

<as-path> (configuration / policy-options / policy-statement / term / from)

Usage

```
<configuration>
   <policy-options>
      <policy-statement>
         <term>
            <from>
               <as-path>
                  <name>name</name>     <!-- identifier -->
               </as-path>
            </from>
         </term>
      </policy-statement>
   </policy-options>
</configuration>
```

Description Name of AS path regular expression (BGP only).

Contents <name>—Name of AS path regular expression (BGP only).

<as-path> (configuration/policy-options/policy-statement/term/to)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <to>
          <as-path>
            <name>name</name>     <!-- identifier -->
          </as-path>
        </to>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Name of AS path regular expression (BGP only).

Contents <name>—Name of AS path regular expression (BGP only).

<as-path> (configuration/policy-options/policy-statement/to)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <to>
        <as-path>
          <name>name</name>     <!-- identifier -->
        </as-path>
      </to>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Name of AS path regular expression (BGP only).

Contents <name>—Name of AS path regular expression (BGP only).

<as-path> (configuration/routing-instances/instance/routing-options/aggregate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <defaults>
            <as-path>
              <path>path</path>
              <origin>origin-choice</origin>
              <atomic-aggregate/>
              <as-number>as-number</as-number>
              <address>address</address>
            </as-path>
          </defaults>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-instances/instance/routing-options/aggregate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <route>
            <as-path>
              <path>path</path>
              <origin>origin-choice</origin>
              <atomic-aggregate/>
              <as-number>as-number</as-number>
              <address>address</address>
            </as-path>
          </route>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-instances/instance/routing-options/generate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <generate>
          <defaults>
            <as-path>
              <path>path</path>
              <origin>origin-choice</origin>
              <atomic-aggregate/>
              <as-number>as-number</as-number>
              <address>address</address>
            </as-path>
          </defaults>
        </generate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-instances/instance/routing-options/generate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <generate>
          <route>
            <as-path>
              <path>path</path>
              <origin>origin-choice</origin>
              <atomic-aggregate/>
              <as-number>as-number</as-number>
              <address>address</address>
            </as-path>
          </route>
        </generate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-instances/instance/routing-options/rib/aggregate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <defaults>
              <as-path>
                <path>path</path>
                <origin>origin-choice</origin>
                <atomic-aggregate/>
                <as-number>as-number</as-number>
                <address>address</address>
              </as-path>
            </defaults>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-instances/instance/routing-options/rib/aggregate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <route>
              <as-path>
                <path>path</path>
                <origin>origin-choice</origin>
                <atomic-aggregate/>
                <as-number>as-number</as-number>
                <address>address</address>
              </as-path>
            </route>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-instances/instance/routing-options/rib/generate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <defaults>
              <as-path>
                <path>path</path>
                <origin>origin-choice</origin>
                <atomic-aggregate/>
                <as-number>as-number</as-number>
                <address>address</address>
              </as-path>
            </defaults>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration / routing-instances / instance / routing-options / rib / generate / route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <route>
              <as-path>
                <path>path</path>
                <origin>origin-choice</origin>
                <atomic-aggregate/>
                <as-number>as-number</as-number>
                <address>address</address>
              </as-path>
            </route>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-instances/instance/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <defaults>
              <as-path>
                <path>path</path>
                <origin>origin-choice</origin>
                <atomic-aggregate/>
                <as-number>as-number</as-number>
                <address>address</address>
              </as-path>
            </defaults>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-instances/instance/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <route>
              <as-path>
                <path>path</path>
                <origin>origin-choice</origin>
                <atomic-aggregate/>
                <as-number>as-number</as-number>
                <address>address</address>
              </as-path>
            </route>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-instances/instance/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <defaults>
            <as-path>
              <path>path</path>
              <origin>origin-choice</origin>
              <atomic-aggregate/>
              <as-number>as-number</as-number>
              <address>address</address>
            </as-path>
          </defaults>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-instances/instance/routing-options/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <route>
            <as-path>
              <path>path</path>
              <origin>origin-choice</origin>
              <atomic-aggregate/>
              <as-number>as-number</as-number>
              <address>address</address>
            </as-path>
          </route>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-options/aggregate/defaults)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <defaults>
        <as-path>
          <path>path</path>
          <origin>origin-choice</origin>
          <atomic-aggregate/>
          <as-number>as-number</as-number>
          <address>address</address>
        </as-path>
      </defaults>
    </aggregate>
  </routing-options>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-options/aggregate/route)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <route>
        <as-path>
          <path>path</path>
          <origin>origin-choice</origin>
          <atomic-aggregate/>
          <as-number>as-number</as-number>
          <address>address</address>
        </as-path>
      </route>
    </aggregate>
  </routing-options>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-options/generate/defaults)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <defaults>
        <as-path>
          <path>path</path>
          <origin>origin-choice</origin>
          <atomic-aggregate/>
          <as-number>as-number</as-number>
          <address>address</address>
        </as-path>
      </defaults>
    </generate>
  </routing-options>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-options/generate/route)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <route>
        <as-path>
          <path>path</path>
          <origin>origin-choice</origin>
          <atomic-aggregate/>
          <as-number>as-number</as-number>
          <address>address</address>
        </as-path>
      </route>
    </generate>
  </routing-options>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-options/rib/aggregate/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <defaults>
          <as-path>
            <path>path</path>
            <origin>origin-choice</origin>
            <atomic-aggregate/>
            <as-number>as-number</as-number>
            <address>address</address>
          </as-path>
        </defaults>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-options/rib/aggregate/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <route>
          <as-path>
            <path>path</path>
            <origin>origin-choice</origin>
            <atomic-aggregate/>
            <as-number>as-number</as-number>
            <address>address</address>
          </as-path>
        </route>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-options/rib/generate/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <defaults>
          <as-path>
            <path>path</path>
            <origin>origin-choice</origin>
            <atomic-aggregate/>
            <as-number>as-number</as-number>
            <address>address</address>
          </as-path>
        </defaults>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-options/rib/generate/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <route>
          <as-path>
            <path>path</path>
            <origin>origin-choice</origin>
            <atomic-aggregate/>
            <as-number>as-number</as-number>
            <address>address</address>
          </as-path>
        </route>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <defaults>
          <as-path>
            <path>path</path>
            <origin>origin-choice</origin>
            <atomic-aggregate/>
            <as-number>as-number</as-number>
            <address>address</address>
          </as-path>
        </defaults>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <route>
          <as-path>
            <path>path</path>
            <origin>origin-choice</origin>
            <atomic-aggregate/>
            <as-number>as-number</as-number>
            <address>address</address>
          </as-path>
        </route>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <static>
      <defaults>
        <as-path>
          <path>path</path>
          <origin>origin-choice</origin>
          <atomic-aggregate/>
          <as-number>as-number</as-number>
          <address>address</address>
        </as-path>
      </defaults>
    </static>
  </routing-options>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path> (configuration/routing-options/static/route)

Usage

```
<configuration>
  <routing-options>
    <static>
      <route>
        <as-path>
          <path>path</path>
          <origin>origin-choice</origin>
          <atomic-aggregate/>
          <as-number>as-number</as-number>
          <address>address</address>
        </as-path>
      </route>
    </static>
  </routing-options>
</configuration>
```

Description Autonomous system path.

Contents <atomic-aggregate>—Add ATOMIC_AGGREGATE path attribute to route.

<origin>—No documentation is available yet.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<path>—Autonomous system path.

<as-path-expand> (configuration/policy-options/policy-statement/from/route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <as-path-expand>
            <last-as>...</last-as>
            <aspath>aspath</aspath>
          </as-path-expand>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Prepend AS numbers prior to adding local-as (BGP only).

Contents <aspath>—AS path string.

<last-as>—Prepend last AS.

<as-path-expand> (configuration / policy-options / policy-statement / from / source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <as-path-expand>
            <last-as>...</last-as>
            <aspath>aspath</aspath>
          </as-path-expand>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Prepend AS numbers prior to adding local-as (BGP only).

Contents <aspath>—AS path string.

<last-as>—Prepend last AS.

<as-path-expand> (configuration / policy-options / policy-statement / term / from / route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <as-path-expand>
              <last-as>...</last-as>
              <aspath>aspath</aspath>
            </as-path-expand>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Prepend AS numbers prior to adding local-as (BGP only).

Contents <aspath>—AS path string.

<last-as>—Prepend last AS.

<as-path-expand> (configuration / policy-options / policy-statement / term / from / source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <as-path-expand>
              <last-as>...</last-as>
              <aspath>aspath</aspath>
            </as-path-expand>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Prepend AS numbers prior to adding local-as (BGP only).

Contents <aspath>—AS path string.

<last-as>—Prepend last AS.

<as-path-expand> (configuration / policy-options / policy-statement / term / then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <as-path-expand>
            <last-as>...</last-as>
            <aspath>aspath</aspath>
          </as-path-expand>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Prepend AS numbers prior to adding local-as (BGP only).

Contents <aspath>—AS path string.

<last-as>—Prepend last AS.

<as-path-expand> (configuration / policy-options / policy-statement / then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <then>
        <as-path-expand>
          <last-as>...</last-as>
          <aspath>aspath</aspath>
        </as-path-expand>
      </then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Prepend AS numbers prior to adding local-as (BGP only).

Contents <aspath>—AS path string.

<last-as>—Prepend last AS.

<atm-options> (configuration / interfaces / interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <atm-options>
        <pic-type>pic-type-choice</pic-type>
        <promiscuous-mode>...</promiscuous-mode>
        <vpi>...</vpi>
        <ilmi>ilmi</ilmi>
      </atm-options>
    </interface>
  </interfaces>
</configuration>
```

Description ATM interface-specific options.

Contents <ilmi>—Enable Interim Local Management Interface.

<pic-type>—Type of ATM PIC (ATM II or ATM I).

- atm1—ATM I PIC.
- atm2—ATM II PIC.

<promiscuous-mode>—Set ATM interface to promiscuous mode.

<vpi>—Define a virtual path.

<authentication> (configuration/security/ipsec/security-association/manual/direction)

Usage

```
<configuration>
  <security>
    <ipsec>
      <security-association>
        <manual>
          <direction>
            <authentication>
              <algorithm>algorithm-choice</algorithm>
              <key>...</key>
            </authentication>
          </direction>
        </manual>
      </security-association>
    </ipsec>
  </security>
</configuration>
```

Description Define authentication parameters.

Contents <algorithm>—Define authentication algorithm.

- hmac-md5-96—HMAC-MD5-96 authentication algorithm.
- hmac-sha1-96—HMAC-SHA1-96 authentication algorithm.

<key>—Define an authentication key.

<authentication> (configuration/services/ggsn/apn/radius)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <radius>
          <authentication>
            <message-attributes>...</message-attributes>
          </authentication>
        </radius>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description RADIUS authentication settings.

Contents <message-attributes>—Attributes in RADIUS messages.

<authentication> (configuration / system / login / user)

Usage

```
<configuration>
  <system>
    <login>
      <user>
        <authentication>
          <plain-text-password-value>password-value</plain-text-password-value>
          <encrypted-password>encrypted-password</encrypted-password>
          <ssh-rsa>...</ssh-rsa>
          <ssh-dsa>...</ssh-dsa>
          <load-key-file>load-key-file</load-key-file>
        </authentication>
      </user>
    </login>
  </system>
</configuration>
```

Description Authentication method.

Contents <encrypted-password>—Crypted password string.

<load-key-file>—File (URL) containing one or more ssh keys.

<plain-text-password-value>—Plain text password.

<ssh-dsa>—Secure shell (ssh) DSA public key string.

<ssh-rsa>—Secure shell (ssh) RSA public key string.

<authentication-key> (configuration / interfaces / interface / sonet-options / aps)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <sonet-options>
        <aps>
          <authentication-key>
            <auth_key>auth_key</auth_key>     <!-- mandatory -->
          </authentication-key>
        </aps>
      </sonet-options>
    </interface>
  </interfaces>
</configuration>
```

Description Authentication parameters.

Contents <auth_key>—Authentication key.

<authentication-key> (configuration/protocols/ospf/area/interface)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <area>
        <interface>
          <authentication-key>
            <keyname>keyname</keyname>     <!-- mandatory -->
            <key-id>key-id</key-id>
          </authentication-key>
        </interface>
      </area>
    </ospf>
  </protocols>
</configuration>
```

Description Authentication key.

Contents <key-id>—Key ID for MD5 authentication.

<keyname>—Authentication key value.

<authentication-key> (configuration/protocols/ospf/area/virtual-link)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <area>
        <virtual-link>
          <authentication-key>
            <keyname>keyname</keyname>     <!-- mandatory -->
            <key-id>key-id</key-id>
          </authentication-key>
        </virtual-link>
      </area>
    </ospf>
  </protocols>
</configuration>
```

Description Authentication key.

Contents <key-id>—Key ID for MD5 authentication.

<keyname>—Authentication key value.

<authentication-key> (configuration/protocols/ospf3/area/interface)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <area>
        <interface>
          <authentication-key>
            <keyname>keyname</keyname>     <!-- mandatory -->
            <key-id>key-id</key-id>
          </authentication-key>
        </interface>
      </area>
    </ospf3>
  </protocols>
</configuration>
```

Description Authentication key.

Contents <key-id>—Key ID for MD5 authentication.

<keyname>—Authentication key value.

<authentication-key> (configuration/protocols/ospf3/area/virtual-link)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <area>
        <virtual-link>
          <authentication-key>
            <keyname>keyname</keyname>     <!-- mandatory -->
            <key-id>key-id</key-id>
          </authentication-key>
        </virtual-link>
      </area>
    </ospf3>
  </protocols>
</configuration>
```

Description Authentication key.

Contents <key-id>—Key ID for MD5 authentication.

<keyname>—Authentication key value.

<authentication-key> (configuration/routing-instances/instance/protocols/ospf/area/interface)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <area>
            <interface>
              <authentication-key>
                <keyname>keyname</keyname>      <!-- mandatory -->
                <key-id>key-id</key-id>
              </authentication-key>
            </interface>
          </area>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Authentication key.

Contents <key-id>—Key ID for MD5 authentication.

<keyname>—Authentication key value.

<authentication-key> (configuration/routing-instances/instance/protocols/ospf/area/virtual-link)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <area>
            <virtual-link>
              <authentication-key>
                <keyname>keyname</keyname>      <!-- mandatory -->
                <key-id>key-id</key-id>
              </authentication-key>
            </virtual-link>
          </area>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Authentication key.

Contents <key-id>—Key ID for MD5 authentication.

<keyname>—Authentication key value.

<authentication-order> (configuration/access/profile)

Usage

```
<configuration>
  <access>
    <profile>
      <authentication-order>
        <name>name</name>     <!-- identifier -->
      </authentication-order>
    </profile>
  </access>
</configuration>
```

Description Order in which authentication mechanisms are used.

Contents <name>—Order in which authentication mechanisms are used.

- password—Locally configured password in access profile.
- radius—Remote Authentication Dial-In User Service.

<authentication-order> (configuration/system)

Usage

```
<configuration>
  <system>
    <authentication-order>
      <name>name</name>     <!-- identifier -->
    </authentication-order>
  </system>
</configuration>
```

Description Order in which authentication methods are invoked.

Contents <name>—Order in which authentication methods are invoked.

- password—Traditional password authentication.
- radius—Remote Authentication Dial-In User Service.
- tacplus—TACACS + authentication services.

<authentication-server> (configuration/services/ggsn/apn/radius)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <radius>
          <authentication-server>
            <name>name</name>     <!-- identifier -->
            <timeout>seconds</timeout>
            <retry>retry</retry>
            <port>port</port>
            <secret>secret</secret>     <!-- mandatory -->
            <serverdown-timeout>seconds</serverdown-timeout>
          </authentication-server>
        </radius>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description RADIUS server for authentication.

Contents <name>—RADIUS server address.

<port>—Port number for RADIUS messages.

<retry>—Retry attempts.

<secret>—Shared secret with the RADIUS server.

<serverdown-timeout>—Time before retrying requests to a down server.

<timeout>—Request timeout period.

<authentication-server> (configuration/services/ggsn/apn/radius/outband-server)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <radius>
          <outband-server>
            <authentication-server>
              <name>name</name>     <!-- identifier -->
            </authentication-server>
          </outband-server>
        </radius>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description Shared RADIUS authentication server.

Contents <name>—Name of outband GGSN RADIUS server.

<auto-bandwidth> (configuration/protocols/mpls/label-switched-path)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <auto-bandwidth>
          <adjust-interval>seconds</adjust-interval>
          <adjust-threshold>percent</adjust-threshold>
          <minimum-bandwidth>bps</minimum-bandwidth>
          <maximum-bandwidth>bps</maximum-bandwidth>
          <monitor-bandwidth/>
        </auto-bandwidth>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Do auto bandwidth allocation for this LSP.

Contents <adjust-interval>—Time to adjust LSP bandwidth.

<adjust-threshold>—Change in average LSP utilization to trigger auto-adjustment.

<maximum-bandwidth>—Maximum LSP bandwidth.

<minimum-bandwidth>—Minimum LSP bandwidth.

<monitor-bandwidth>—Monitor LSP bandwidth without adjustments.

<auto-export> (configuration/routing-instances/instance/routing-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <auto-export>
          <disable/>
          <traceoptions>...</traceoptions>
          <family>...</family>
        </auto-export>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Export routes between routing instances.

Contents <disable>—Disable auto-export.

<family>—No documentation is available yet.

<traceoptions>—Trace options.

<auto-export> (configuration/routing-options)

Usage

```
<configuration>
  <routing-options>
    <auto-export>
      <disable/>
      <traceoptions>...</traceoptions>
      <family>...</family>
    </auto-export>
  </routing-options>
</configuration>
```

Description Export routes between routing instances.

Contents <disable>—Disable auto-export.

<family>—No documentation is available yet.

<traceoptions>—Trace options.

<auto-rp> (configuration/protocols/pim/rp)

Usage

```
<configuration>
  <protocols>
    <pim>
      <rp>
        <auto-rp>
          <discovery/>
          <announce/>
          <mapping/>
        </auto-rp>
      </rp>
    </pim>
  </protocols>
</configuration>
```

Description Set auto-RP mode (IPv4 only).

Contents <announce>—Transmit auto-RP announcement messages.

<discovery>—Listen for auto-RP discovery messages.

<mapping>—Transmit auto-RP mapping messages.

<auto-rp> (configuration/routing-instances/instance/protocols/pim/rp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <rp>
            <auto-rp>
              <discovery/>
              <announce/>
              <mapping/>
            </auto-rp>
          </rp>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Set auto-RP mode (IPv4 only).

Contents <announce>—Transmit auto-RP announcement messages.

<discovery>—Listen for auto-RP discovery messages.

<mapping>—Transmit auto-RP mapping messages.

<autonomous-system> (configuration/routing-instances/instance/routing-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <autonomous-system>
          <as-number>as-number</as-number>     <!-- mandatory -->
          <loops>loops</loops>
        </autonomous-system>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Autonomous system number.

Contents <as-number>—Autonomous system number.

<loops>—Maximum number of times this AS can be in an AS path.

<autonomous-system> (configuration/routing-options)

Usage

```
<configuration>
  <routing-options>
    <autonomous-system>
      <as-number>as-number</as-number>     <!-- mandatory -->
      <loops>loops</loops>
    </autonomous-system>
  </routing-options>
</configuration>
```

Description Autonomous system number.

Contents <as-number>—Autonomous system number.

<loops>—Maximum number of times this AS can be in an AS path.

<auxiliary> (configuration/system/ports)

Usage

```
<configuration>
  <system>
    <ports>
      <auxiliary>
        <insecure/>
        <type>type-choice</type>
      </auxiliary>
    </ports>
  </system>
</configuration>
```

Description Auxiliary port.

Contents <insecure>—Disallow superuser access.

<type>—Terminal type.

- ansi—ANSI-compatible terminal.
- small-xterm—Small (24-line) xterm window.
- vt100—VT100-compatible terminal.
- xterm—Large (65-line) xterm window.

<background> (configuration/services/ggsn/apn/quality-of-service)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <quality-of-service>
          <background>
            <name>name</name>     <!-- identifier -->
          </background>
        </quality-of-service>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description DSCP name for background traffic.

Contents <name>—DSCP name for background traffic.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.

- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- be—Best effort forwarding.
- ef—Expedited forwarding.

<background> (configuration/services/ggsn/gtp/quality-of-service)

Usage

```
<configuration>
  <services>
    <ggsn>
      <gtp>
        <quality-of-service>
          <background>
            <name>name</name>     <!-- identifier -->
          </background>
        </quality-of-service>
      </gtp>
    </ggsn>
  </services>
</configuration>
```

Description DSCP name for background traffic.

Contents <name>—DSCP name for background traffic.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.

- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- be—Best effort forwarding.
- ef—Expedited forwarding.

<backup-router> (configuration/system)

Usage

```
<configuration>
  <system>
    <backup-router>
      <address>address</address>     <!-- mandatory -->
      <destination>destination</destination>
    </backup-router>
  </system>
</configuration>
```

Description IPv4 router to use while booting.

Contents <address>—Address of router to use while booting.

<destination>—Destination network reachable through the router.

<bandwidth-constraint> (configuration/services/ggsn/apn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <bandwidth-constraint>
          <name>name</name>     <!-- identifier -->
          <limit>kilobits</limit>     <!-- mandatory -->
        </bandwidth-constraint>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description APN bandwidth constraints.

Contents <limit>—Limit for traffic.

<name>—Type of traffic to limit.

- af1—Assured forwarding class 1.
- af2—Assured forwarding class 2.
- ef—Expedited Forwarding.

<bandwidth-constraint> (configuration/services/ggsn/gtp)

Usage

```
<configuration>
  <services>
    <ggsn>
      <gtp>
        <bandwidth-constraint>
          <name>name</name>      <!-- identifier -->
          <limit>kilobits</limit>     <!-- mandatory -->
        </bandwidth-constraint>
      </gtp>
    </ggsn>
  </services>
</configuration>
```

Description SGSN-GGSN bandwidth constraints.

Contents <limit>—Limit for traffic.

<name>—Type of traffic to limit.

- af1—Assured forwarding class 1.
- af2—Assured forwarding class 2.
- ef—Expedited Forwarding.

<bgp> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <disable/>
      <path-selection>path-selection-choice</path-selection>
      <traceoptions>...</traceoptions>
      <description>description</description>
      <metric-out>...</metric-out>
      <multihop>...</multihop>
      <preference>preference</preference>
      <local-preference>local-preference</local-preference>
      <local-address>local-address</local-address>
      <local-interface>local-interface</local-interface>
      <hold-time>hold-time</hold-time>
      <passive/>
      <advertise-inactive/>
      <keep>keep-choice</keep>
      <no-aggregator-id/>
      <out-delay>out-delay</out-delay>
      <log-updown/>
      <damping/>
      <import>...</import>
      <family>...</family>
      <authentication-key>authentication-key</authentication-key>
      <export>...</export>
      <remove-private/>
      <cluster>cluster</cluster>
      <no-client-reflect/>
      <peer-as>peer-as</peer-as>
      <local-as>...</local-as>
      <ipsec-sa>ipsec-sa</ipsec-sa>
      <graceful-restart>...</graceful-restart>
      <group>...</group>
    </bgp>
  </protocols>
</configuration>
```

Description BGP options.

Contents <advertise-inactive>—Advertise inactive routes.

<authentication-key>—MD5 authentication key.

<cluster>—Cluster identifier.

<damping>—Enable route flap damping.

<description>—Text description.

<disable>—Disable BGP.

<export>—Export policy.

<family>—Protocol family for NLRIs in updates.

<graceful-restart>—BGP graceful restart options.

<group>—Define a peer group.

<hold-time>—Hold time used when negotiating with a peer.

<import>—Import policy.

<ipsec-sa>—IPSec SA name.

<keep>—How to retain routes in the routing table.

- all—Retain all routes.
- none—Retain no routes.

<local-address>—Address of local end of BGP session.

<local-as>—Local autonomous system number.

<local-interface>—Local interface for IPv6 link local EBGP peering.

<local-preference>—Value of LOCAL_PREF path attribute.

<log-updown>—Log a message for peer state transitions.

<metric-out>—Route metric sent in MED.

<multihop>—Configure an EBGP multihop session.

<no-aggregator-id>—Set router ID in aggregator path attribute to 0.

<no-client-reflect>—Disable intracluster route redistribution.

<out-delay>—How long before exporting routes from routing table.

<passive>—Do not send open messages to a peer.

<path-selection>—Configure path selection strategy.

- always-compare-med—Always compare MED values, regardless of neighbor AS.
- cisco-non-deterministic—Use Cisco IOS nondeterministic path selection algorithm.

<peer-as>—Peer autonomous system number.

<preference>—Preference value.

<remove-private>—Remove well-known private AS numbers.

<traceoptions>—Trace options.

<bgp> (configuration/routing-instances/instance/protocols)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <disable/>
          <path-selection>path-selection-choice</path-selection>
          <traceoptions>...</traceoptions>
          <description>description</description>
          <metric-out>...</metric-out>
          <multihop>...</multihop>
          <preference>preference</preference>
          <local-preference>local-preference</local-preference>
          <local-address>local-address</local-address>
          <local-interface>local-interface</local-interface>
          <hold-time>hold-time</hold-time>
          <passive/>
          <advertise-inactive/>
          <keep>keep-choice</keep>
          <no-aggregator-id/>
          <out-delay>out-delay</out-delay>
          <log-updown/>
          <damping/>
          <import>...</import>
          <family>...</family>
          <authentication-key>authentication-key</authentication-key>
          <export>...</export>
          <remove-private/>
          <cluster>cluster</cluster>
          <no-client-reflect/>
          <peer-as>peer-as</peer-as>
          <local-as>...</local-as>
          <ipsec-sa>ipsec-sa</ipsec-sa>
          <graceful-restart>...</graceful-restart>
          <group>...</group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description BGP options.

Contents <advertise-inactive>—Advertise inactive routes.

<authentication-key>—MD5 authentication key.

<cluster>—Cluster identifier.

<damping>—Enable route flap damping.

<description>—Text description.

<disable>—Disable BGP.

<export>—Export policy.

<family>—Protocol family for NLRIs in updates.

<graceful-restart>—BGP graceful restart options.

<group>—Define a peer group.

<hold-time>—Hold time used when negotiating with a peer.

<import>—Import policy.

<ipsec-sa>—IPSec SA name.

<keep>—How to retain routes in the routing table.

- all—Retain all routes.
- none—Retain no routes.

<local-address>—Address of local end of BGP session.

<local-as>—Local autonomous system number.

<local-interface>—Local interface for IPv6 link local EBGP peering.

<local-preference>—Value of LOCAL_PREF path attribute.

<log-updown>—Log a message for peer state transitions.

<metric-out>—Route metric sent in MED.

<multihop>—Configure an EBGP multihop session.

<no-aggregator-id>—Set router ID in aggregator path attribute to 0.

<no-client-reflect>—Disable intracluster route redistribution.

<out-delay>—How long before exporting routes from routing table.

<passive>—Do not send open messages to a peer.

<path-selection>—Configure path selection strategy.

- always-compare-med—Always compare MED values, regardless of neighbor AS.
- cisco-non-deterministic—Use Cisco IOS nondeterministic path selection algorithm.

<peer-as>—Peer autonomous system number.

<preference>—Preference value.

<remove-private>—Remove well-known private AS numbers.

<traceoptions>—Trace options.

<bootp> (configuration/forwarding-options/helpers)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <bootp>
        <description>description</description>
        <server>...</server>
        <maximum-hop-count>maximum-hop-count</maximum-hop-count>
        <minimum-wait-time>minimum-wait-time</minimum-wait-time>
        <interface>...</interface>
      </bootp>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Incoming BOOTP/DHCP request forwarding configuration.

Contents <description>—Text description of servers.

<interface>—Incoming BOOTP/DHCP request forwarding interface configuration.

<maximum-hop-count>—Maximum number of hops per packet.

<minimum-wait-time>—Minimum number of seconds before requests are forwarded.

<server>—Server information.

<bootstrap-export> (configuration/protocols/pim/rp)

Usage

```
<configuration>
  <protocols>
    <pim>
      <rp>
        <bootstrap-export>
          <name>name</name>     <!-- identifier -->
        </bootstrap-export>
      </rp>
    </pim>
  </protocols>
</configuration>
```

Description Bootstrap export policy.

Contents <name>—Bootstrap export policy.

<bootstrap-export> (configuration/routing-instances/instance/protocols/pim/rp)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <protocols>
            <pim>
               <rp>
                  <bootstrap-export>
                     <name>name</name>     <!-- identifier -->
                  </bootstrap-export>
               </rp>
            </pim>
         </protocols>
      </instance>
   </routing-instances>
</configuration>
```

Description Bootstrap export policy.

Contents <name>—Bootstrap export policy.

<bootstrap-import> (configuration/protocols/pim/rp)

Usage

```
<configuration>
   <protocols>
      <pim>
         <rp>
            <bootstrap-import>
               <name>name</name>     <!-- identifier -->
            </bootstrap-import>
         </rp>
      </pim>
   </protocols>
</configuration>
```

Description Bootstrap import policy.

Contents <name>—Bootstrap import policy.

<bootstrap-import> (configuration/routing-instances/instance/protocols/pim/rp)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <protocols>
            <pim>
               <rp>
                  <bootstrap-import>
                     <name>name</name>     <!-- identifier -->
                  </bootstrap-import>
               </rp>
            </pim>
         </protocols>
      </instance>
   </routing-instances>
</configuration>
```

Description Bootstrap import policy.

Contents <name>—Bootstrap import policy.

<buffer-size> (configuration/class-of-service/schedulers)

Usage

```
<configuration>
   <class-of-service>
      <schedulers>
         <buffer-size>
            <percent>percent</percent>
            <remainder/>
         </buffer-size>
      </schedulers>
   </class-of-service>
</configuration>
```

Description Queue transmission buffer size.

Contents <percent>—Buffer size as a percentage.

<remainder>—Remainder of buffer size available.

<bytes> (configuration/interfaces/interface/sonet-options)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <sonet-options>
        <bytes>
          <e1-quiet>e1-quiet</e1-quiet>
          <f1>f1</f1>
          <f2>f2</f2>
          <s1>s1</s1>
          <z3>z3</z3>
          <z4>z4</z4>
        </bytes>
      </sonet-options>
    </interface>
  </interfaces>
</configuration>
```

Description Set SONET header bytes.

Contents <e1-quiet>—E1-quiet value.

<f1>—F1 user value.

<f2>—F2 user value.

<s1>—S1/Z1 value (stratum clock by convention).

<z3>—Z3 user value.

<z4>—Z4 user value.

<categories> (configuration/snmp/trap-group)

Usage

```
<configuration>
  <snmp>
    <trap-group>
      <categories>
        <authentication/>
        <chassis/>
        <link/>
        <remote-operations/>
        <routing/>
        <startup/>
        <ggsn/>
        <rmon-alarm/>
        <vrrp-events/>
        <configuration/>
      </categories>
    </trap-group>
  </snmp>
</configuration>
```

Description Trap categories.

Contents <authentication>—Authentication failures.

<chassis>—Chassis or environment notifications.

<configuration>—Configuration notifications.

<ggsn>—GGSN notifications.

<link>—Link up-down transitions.

<remote-operations>—Remote operations.

<rmon-alarm>—RMON rising and falling alarms.

<routing>—Routing protocol notifications.

<startup>—System warm and cold starts.

<vrrp-events>—VRRP notifications.

<ccc> (configuration / interfaces / interface / unit / family)

Usage

```
<configuration>
   <interfaces>
      <interface>
         <unit>
            <family>
               <ccc>
                  <policer>...</policer>
               </ccc>
            </family>
         </unit>
      </interface>
   </interfaces>
</configuration>
```

Description Circuit cross-connect parameters.

Contents <policer>—Interface policing.

<ce1> (configuration/chassis/fpc/pic)

Usage

```
<configuration>
  <chassis>
    <fpc>
      <pic>
        <ce1>
          <e1>...</e1>
        </ce1>
      </pic>
    </fpc>
  </chassis>
</configuration>
```

Description CE1 NxDS0 PIC configuration.

Contents <e1>—E1 link.

<certificates> (configuration/security)

Usage

```
<configuration>
  <security>
    <certificates>
      <local>...</local>
    </certificates>
  </security>
</configuration>
```

Description X.509 certificate configuration.

Contents <local>—Local X.509 certificate configuration.

<cflowd> (configuration/forwarding-options/sampling/output)

Usage

```
<configuration>
  <forwarding-options>
    <sampling>
      <output>
        <cflowd>
          <name>name</name>     <!-- identifier -->
          <port>port</port>     <!-- mandatory -->
          <version>version-choice</version>
          <local-dump/>
          <autonomous-system-type>autonomous-system</autonomous-system-type>
          <aggregation>...</aggregation>
        </cflowd>
      </output>
    </sampling>
  </forwarding-options>
</configuration>
```

Description Configure sending traffic aggregates in cflowd format.

Contents <aggregation>—Aggregations to perform for exported flows (version 8 only).

<autonomous-system-type>—Type of autonomous system number to export.

- origin—Export origin-AS numbers.
- peer—Export peer-AS numbers.

<local-dump>—Dump cflowd records to log file before exporting.

<name>—Name of host collecting cflowd packets.

<port>—UDP port number on host collecting cflowd packets.

<version>—Format of exported cflowd aggregates.

- 5—Export cflowd aggregates in version 5 format.
- 8—Export cflowd aggregates in version 8 format.

<channel-group> (configuration/chassis/fpc/pic/ce1/e1)

Usage

```
<configuration>
  <chassis>
    <fpc>
      <pic>
        <ce1>
          <e1>
            <channel-group>
              <name>name</name>     <!-- identifier -->
              <timeslots>timeslots</timeslots>
            </channel-group>
          </e1>
        </ce1>
      </pic>
    </fpc>
  </chassis>
</configuration>
```

Description Define a channel group.

Contents <name>—Channel group number.

<timeslots>—DS-0 timeslots (1..31); for example, 1-3,4,9,22-24 (no space).

<channel-group> (configuration/chassis/fpc/pic/ct3/port/t1)

Usage

```
<configuration>
  <chassis>
    <fpc>
      <pic>
        <ct3>
          <port>
            <t1>
              <channel-group>
                <name>name</name>     <!-- identifier -->
                <timeslots>timeslots</timeslots>
              </channel-group>
            </t1>
          </port>
        </ct3>
      </pic>
    </fpc>
  </chassis>
</configuration>
```

Description Define a channel group.

Contents <name>—Channel group number.

<timeslots>—DS-0 timeslots (1..24); for example, 1-3,4,9,22-24 (no space).

<chap> (configuration/interfaces/interface/ppp-options)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <ppp-options>
        <chap>
          <access-profile>access-profile</access-profile>     <!-- mandatory -->
          <local-name>local-name</local-name>
          <passive/>
        </chap>
      </ppp-options>
    </interface>
  </interfaces>
</configuration>
```

Description Challenge Handshake Authentication Protocol options.

Contents <access-profile>—Profile containing client list and access parameters.

<local-name>—Name sent in CHAP-Challenge and CHAP-Response.

<passive>—Handle incoming CHAP requests only.

<characteristics> (configuration/services/ggsn/charging)

Usage

```
<configuration>
  <services>
    <ggsn>
      <charging>
        <characteristics>
          <default-characteristics>...</default-characteristics>
          <normal>...</normal>
          <prepaid>...</prepaid>
          <hot-billing>...</hot-billing>
          <flat-rate>...</flat-rate>
        </characteristics>
      </charging>
    </ggsn>
  </services>
</configuration>
```

Description Account-type charging characteristics.

Contents <default-characteristics>—Default charging characteristics.

<flat-rate>—Flat-rate clients.

<hot-billing>—Hot-billing clients.

<normal>—Normal postpaid clients.

<prepaid>—Prepaid clients.

<charging> (configuration/services/ggsn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <charging>
        <node>node</node>     <!-- mandatory -->
        <charging-gateway>...</charging-gateway>
        <gtp-prime>...</gtp-prime>
        <transfer-type>transfer-type-choice</transfer-type>     <!-- mandatory -->
        <charging-format>charging-format-choice</charging-format>     <!-- mandatory -->
        <local-sequence-number/>
        <msisdn/>
        <sgsn-address/>
        <charging-log>...</charging-log>
        <characteristics>...</characteristics>
        <tariff-activation>...</tariff-activation>
        <logging-owner>logging-owner</logging-owner>
      </charging>
    </ggsn>
  </services>
</configuration>
```

Description GGSN charging and CDR configuration.

Contents <characteristics>—Account-type charging characteristics.

<charging-format>—Charging format version.

- 97—Charging version 97.
- 98—Charging version 98.
- 99—Charging version 99.

<charging-gateway>—Address of GTP Prime charging data server.

<charging-log>—No documentation is available yet.

<gtp-prime>—GTP Prime configuration.

<local-sequence-number>—Call detail records include local sequence number.

<logging-owner>—Username of the owner of charging files.

<msisdn>—Call detail records include MSISDN.

<node>—Identifier for GGSN node.

<sgsn-address>—Call detail records include SGSN address.

<tariff-activation>—UTC times when new tariffs apply.

<transfer-type>—Method used to transfer charging data.

- ftp-pull—Charging data transfer uses FTP pull.
- gtp-prime—Charging data transfer uses GTP Prime.

<charging-gateway> (configuration/services/ggsn/charging)

Usage

```
<configuration>
  <services>
    <ggsn>
      <charging>
        <charging-gateway>
          <name>name</name>     <!-- identifier -->
        </charging-gateway>
      </charging>
    </ggsn>
  </services>
</configuration>
```

Description Address of GTP Prime charging data server.

Contents <name>—Address of GTP Prime charging data server.

<charging-log> (configuration/services/ggsn/charging)

Usage

```
<configuration>
  <services>
    <ggsn>
      <charging>
        <charging-log>
          <log-all-pics/>
          <maximum-size>kilobytes</maximum-size>
          <maximum-age>minutes</maximum-age>
        </charging-log>
      </charging>
    </ggsn>
  </services>
</configuration>
```

Description No documentation is available yet.

Contents <log-all-pics>—All GGSN-C PICs generate charging logs.

<maximum-age>—Maximum age of charging log file.

<maximum-size>—Maximum size of charging log file per PIC.

<chassis> (configuration)

Usage

```
<configuration>
  <chassis>
    <source-route/>
    <packet-scheduling/>
    <redundancy>...</redundancy>
    <aggregated-devices>...</aggregated-devices>
    <fpc>...</fpc>
    <sfm>...</sfm>
    <alarm>...</alarm>
  </chassis>
</configuration>
```

Description Chassis configuration.

Contents <aggregated-devices>—Aggregated devices configuration.

<alarm>—Global alarm settings.

<fpc>—Flexible PIC Concentrator (FPC) card parameters.

<packet-scheduling>—Enable DX2.0 packet scheduling.

<redundancy>—Redundancy settings.

<sfm>—Switching and Forwarding Module (SFM) card parameters.

<source-route>—Enable IP source-route processing.

<class> (configuration / class-of-service / forwarding-policy)

Usage

```
<configuration>
  <class-of-service>
    <forwarding-policy>
      <class>
        <name>name</name>     <!-- identifier -->
        <classification-override>...</classification-override>
      </class>
    </forwarding-policy>
  </class-of-service>
</configuration>
```

Description Class-of-service description.

Contents <classification-override>—Define classification overrides.

<name>—Name to identify class of service.

<class> (configuration / system / login)

Usage

```
<configuration>
  <system>
    <login>
      <class>
        <name>name</name>     <!-- identifier -->
        <idle-timeout>minutes</idle-timeout>
        <permissions>...</permissions>
        <allow-commands>allow-commands</allow-commands>
        <deny-commands>deny-commands</deny-commands>
        <allow-configuration>allow-configuration</allow-configuration>
        <deny-configuration>deny-configuration</deny-configuration>
      </class>
    </login>
  </system>
</configuration>
```

Description Login class.

Contents <allow-commands>—Regular expression for commands to allow explicitly.

<allow-configuration>—Regular expression for configure to allow explicitly.

<deny-commands>—Regular expression for commands to deny explicitly.

<deny-configuration>—Regular expression for configure to deny explicitly.

<idle-timeout>—Maximum idle time before logout.

<name>—Login class name.

<permissions>—Set of permitted operation categories.

<class-of-service> (configuration)

Usage

```
<configuration>
  <class-of-service>
    <forwarding-policy>...</forwarding-policy>
  </class-of-service>
</configuration>
```

Description No documentation is available yet.

Contents <forwarding-policy>—Class-of-service forwarding policy.

<class-usage-profile> (configuration/accounting-options)

Usage

```
<configuration>
  <accounting-options>
    <class-usage-profile>
      <name>name</name>     <!-- identifier -->
      <file>file</file>
      <interval>minutes</interval>
      <destination-classes>...</destination-classes>
      <source-classes>...</source-classes>
    </class-usage-profile>
  </accounting-options>
</configuration>
```

Description Class usage profile for accounting data.

Contents <destination-classes>—Name of destination class.

<file>—Name of file for accounting data.

<interval>—Polling interval.

<name>—Name of profile.

<source-classes>—Name of source class.

<classification-override> (configuration / class-of-service / forwarding-policy / class)

Usage

```
<configuration>
  <class-of-service>
    <forwarding-policy>
      <class>
        <classification-override>
          <forwarding-class>forwarding-class</forwarding-class>
        </classification-override>
      </class>
    </forwarding-policy>
  </class-of-service>
</configuration>
```

Description Define classification overrides.

Contents <forwarding-class>—Forwarding class name.

<classifiers> (configuration / class-of-service)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <dscp>...</dscp>
      <exp>...</exp>
      <ieee-802.1>...</ieee-802.1>
      <inet-precedence>...</inet-precedence>
    </classifiers>
  </class-of-service>
</configuration>
```

Description Classify incoming packets based on code point value.

Contents <dscp>—Differentiated Services (DiffServ) code point (DSCP) classifier.

<exp>—MPLS EXP classifier.

<ieee-802.1>—IEEE-802.1 classifier.

<inet-precedence>—IPv4 precedence classifier.

<classifiers> (configuration / class-of-service / interfaces / unit)

Usage

```
<configuration>
   <class-of-service>
      <interfaces>
         <unit>
            <classifiers>
               <dscp>...</dscp>
               <exp>...</exp>
               <ieee-802.1>...</ieee-802.1>
               <inet-precedence>...</inet-precedence>
            </classifiers>
         </unit>
      </interfaces>
   </class-of-service>
</configuration>
```

Description Classifiers applied to incoming packets.

Contents <dscp>—DSCP classifier.

<exp>—EXP classifier.

<ieee-802.1>—IEEE-802.1 classifier.

<inet-precedence>—IPv4 precedence classifier.

<client> (configuration / access / profile)

Usage

```
<configuration>
   <access>
      <profile>
         <client>
            <name>name</name>     <!-- identifier -->
            <chap-secret>chap-secret</chap-secret>
         </client>
      </profile>
   </access>
</configuration>
```

Description Entity requesting access.

Contents <chap-secret>—CHAP secret.

<name>—Name of entity requesting access.

<clients> (configuration/snmp/access/user)

Usage

```
<configuration>
  <snmp>
    <access>
      <user>
        <clients>
          <name>name</name>     <!-- identifier -->
          <restrict/>
        </clients>
      </user>
    </access>
  </snmp>
</configuration>
```

Description List of source address prefix ranges to accept.

Contents <name>—Address or prefix.

<restrict>—Deny access.

<clients> (configuration/snmp/community)

Usage

```
<configuration>
  <snmp>
    <community>
      <clients>
        <name>name</name>     <!-- identifier -->
        <restrict/>
      </clients>
    </community>
  </snmp>
</configuration>
```

Description List of source address prefix ranges to accept.

Contents <name>—Address or prefix.

<restrict>—Deny access.

<code-point-aliases> (configuration/class-of-service)

Usage

```
<configuration>
  <class-of-service>
    <code-point-aliases>
      <dscp>...</dscp>
      <exp>...</exp>
      <ieee-802.1>...</ieee-802.1>
      <inet-precedence>...</inet-precedence>
    </code-point-aliases>
  </class-of-service>
</configuration>
```

Description Mapping of code point aliases to bit strings.

Contents <dscp>—Differentiated Services (DiffServ) code point (DSCP) aliases.

<exp>—MPLS EXP code point aliases.

<ieee-802.1>—IEEE-802.1 code point aliases.

<inet-precedence>—IPv4 precedence code point aliases.

<code-points> (configuration/class-of-service/classifiers/dscp/forwarding-class/loss-priority)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <dscp>
        <forwarding-class>
          <loss-priority>
            <code-points>
              <name>name</name>     <!-- identifier -->
            </code-points>
          </loss-priority>
        </forwarding-class>
      </dscp>
    </classifiers>
  </class-of-service>
</configuration>
```

Description List of code point aliases and/or bit strings.

Contents <name>—List of code point aliases and/or bit strings.

<code-points> (configuration/class-of-service/classifiers/exp/forwarding-class/loss-priority)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <exp>
        <forwarding-class>
          <loss-priority>
            <code-points>
              <name>name</name>     <!-- identifier -->
            </code-points>
          </loss-priority>
        </forwarding-class>
      </exp>
    </classifiers>
  </class-of-service>
</configuration>
```

Description List of code point aliases and/or bit strings.

Contents <name>—List of code point aliases and/or bit strings.

<code-points> (configuration / class-of-service / classifiers / ieee-802.1 / forwarding-class / loss-priority)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <ieee-802.1>
        <forwarding-class>
          <loss-priority>
            <code-points>
              <name>name</name>     <!-- identifier -->
            </code-points>
          </loss-priority>
        </forwarding-class>
      </ieee-802.1>
    </classifiers>
  </class-of-service>
</configuration>
```

Description List of code point aliases and/or bit strings.

Contents <name>—List of code point aliases and/or bit strings.

<code-points> (configuration / class-of-service / classifiers / inet-precedence / forwarding-class / loss-priority)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <inet-precedence>
        <forwarding-class>
          <loss-priority>
            <code-points>
              <name>name</name>     <!-- identifier -->
            </code-points>
          </loss-priority>
        </forwarding-class>
      </inet-precedence>
    </classifiers>
  </class-of-service>
</configuration>
```

Description List of code point aliases and/or bit strings.

Contents <name>—List of code point aliases and/or bit strings.

<color> (configuration / policy-options / policy-statement / from / route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <color>
            <color>color</color>
            <add>add</add>
            <subtract>subtract</subtract>
          </color>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Color (preference) value.

Contents <add>—Add constant to attribute.

<color>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<color> (configuration / policy-options / policy-statement / from / source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <color>
            <color>color</color>
            <add>add</add>
            <subtract>subtract</subtract>
          </color>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Color (preference) value.

Contents <add>—Add constant to attribute.

<color>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<color> (configuration / policy-options / policy-statement / term / from / route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <color>
              <color>color</color>
              <add>add</add>
              <subtract>subtract</subtract>
            </color>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Color (preference) value.

Contents <add>—Add constant to attribute.

<color>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<color> (configuration / policy-options / policy-statement / term / from / source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <color>
              <color>color</color>
              <add>add</add>
              <subtract>subtract</subtract>
            </color>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Color (preference) value.

Contents <add>—Add constant to attribute.

<color>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<color> (configuration / policy-options / policy-statement / term / then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <color>
            <color>color</color>
            <add>add</add>
            <subtract>subtract</subtract>
          </color>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Color (preference) value.

Contents <add>—Add constant to attribute.

<color>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<color> (configuration / policy-options / policy-statement / then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <then>
        <color>
          <color>color</color>
          <add>add</add>
          <subtract>subtract</subtract>
        </color>
      </then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Color (preference) value.

Contents <add>—Add constant to attribute.

<color>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<color> (configuration/routing-instances/instance/routing-options/aggregate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <defaults>
            <color>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </color>
          </defaults>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration/routing-instances/instance/routing-options/aggregate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <route>
            <color>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </color>
          </route>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration/routing-instances/instance/routing-options/generate/defaults)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <generate>
               <defaults>
                  <color>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </color>
               </defaults>
            </generate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration/routing-instances/instance/routing-options/generate/route)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <generate>
               <route>
                  <color>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </color>
               </route>
            </generate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration/routing-instances/instance/routing-options/rib/aggregate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <defaults>
              <color>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </color>
            </defaults>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration/routing-instances/instance/routing-options/rib/aggregate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <route>
              <color>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </color>
            </route>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration/routing-instances/instance/routing-options/rib/generate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <defaults>
              <color>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </color>
            </defaults>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration/routing-instances/instance/routing-options/rib/generate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <route>
              <color>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </color>
            </route>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration/routing-instances/instance/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <defaults>
              <color>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </color>
            </defaults>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration/routing-instances/instance/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <route>
              <color>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </color>
            </route>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration/routing-instances/instance/routing-options/static/defaults)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <static>
               <defaults>
                  <color>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </color>
               </defaults>
            </static>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration/routing-instances/instance/routing-options/static/route)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <static>
               <route>
                  <color>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </color>
               </route>
            </static>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration / routing-options / aggregate / defaults)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <defaults>
        <color>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </color>
      </defaults>
    </aggregate>
  </routing-options>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration / routing-options / aggregate / route)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <route>
        <color>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </color>
      </route>
    </aggregate>
  </routing-options>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration / routing-options / generate / defaults)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <defaults>
        <color>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </color>
      </defaults>
    </generate>
  </routing-options>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration / routing-options / generate / route)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <route>
        <color>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </color>
      </route>
    </generate>
  </routing-options>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration / routing-options / rib / aggregate / defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <defaults>
          <color>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </color>
        </defaults>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration / routing-options / rib / aggregate / route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <route>
          <color>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </color>
        </route>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration / routing-options / rib / generate / defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <defaults>
          <color>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </color>
        </defaults>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration / routing-options / rib / generate / route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <route>
          <color>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </color>
        </route>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <defaults>
          <color>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </color>
        </defaults>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <route>
          <color>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </color>
        </route>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration / routing-options / static / defaults)

Usage

```
<configuration>
  <routing-options>
    <static>
      <defaults>
        <color>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </color>
      </defaults>
    </static>
  </routing-options>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color> (configuration / routing-options / static / route)

Usage

```
<configuration>
  <routing-options>
    <static>
      <route>
        <color>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </color>
      </route>
    </static>
  </routing-options>
</configuration>
```

Description Color (preference) value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration / policy-options / policy-statement / from / route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <color2>
            <color2>color2</color2>
            <add>add</add>
            <subtract>subtract</subtract>
          </color2>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Color (preference) value 2.

Contents <add>—Add constant to attribute.

<color2>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<color2> (configuration / policy-options / policy-statement / from / source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <color2>
            <color2>color2</color2>
            <add>add</add>
            <subtract>subtract</subtract>
          </color2>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Color (preference) value 2.

Contents <add>—Add constant to attribute.

<color2>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<color2> (configuration / policy-options / policy-statement / term / from / route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <color2>
              <color2>color2</color2>
              <add>add</add>
              <subtract>subtract</subtract>
            </color2>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Color (preference) value 2.

Contents <add>—Add constant to attribute.

<color2>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<color2> (configuration / policy-options / policy-statement / term / from / source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <color2>
              <color2>color2</color2>
              <add>add</add>
              <subtract>subtract</subtract>
            </color2>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Color (preference) value 2.

Contents <add>—Add constant to attribute.

<color2>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<color2> (configuration/policy-options/policy-statement/term/then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <color2>
            <color2>color2</color2>
            <add>add</add>
            <subtract>subtract</subtract>
          </color2>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Color (preference) value 2.

Contents <add>—Add constant to attribute.

<color2>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<color2> (configuration/policy-options/policy-statement/then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <then>
        <color2>
          <color2>color2</color2>
          <add>add</add>
          <subtract>subtract</subtract>
        </color2>
      </then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Color (preference) value 2.

Contents <add>—Add constant to attribute.

<color2>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<color2> (configuration / routing-instances / instance / routing-options / aggregate / defaults)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <aggregate>
               <defaults>
                  <color2>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </color2>
               </defaults>
            </aggregate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration / routing-instances / instance / routing-options / aggregate / route)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <aggregate>
               <route>
                  <color2>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </color2>
               </route>
            </aggregate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration/routing-instances/instance/routing-options/generate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <generate>
          <defaults>
            <color2>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </color2>
          </defaults>
        </generate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration/routing-instances/instance/routing-options/generate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <generate>
          <route>
            <color2>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </color2>
          </route>
        </generate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration/routing-instances/instance/routing-options/rib/aggregate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <defaults>
              <color2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </color2>
            </defaults>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration/routing-instances/instance/routing-options/rib/aggregate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <route>
              <color2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </color2>
            </route>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration/routing-instances/instance/routing-options/rib/generate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <defaults>
              <color2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </color2>
            </defaults>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration/routing-instances/instance/routing-options/rib/generate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <route>
              <color2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </color2>
            </route>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration/routing-instances/instance/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <defaults>
              <color2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </color2>
            </defaults>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration/routing-instances/instance/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <route>
              <color2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </color2>
            </route>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration/routing-instances/instance/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <defaults>
            <color2>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </color2>
          </defaults>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration/routing-instances/instance/routing-options/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <route>
            <color2>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </color2>
          </route>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration / routing-options / aggregate / defaults)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <defaults>
        <color2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </color2>
      </defaults>
    </aggregate>
  </routing-options>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration / routing-options / aggregate / route)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <route>
        <color2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </color2>
      </route>
    </aggregate>
  </routing-options>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration/routing-options/generate/defaults)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <defaults>
        <color2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </color2>
      </defaults>
    </generate>
  </routing-options>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration/routing-options/generate/route)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <route>
        <color2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </color2>
      </route>
    </generate>
  </routing-options>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration / routing-options / rib / aggregate / defaults)

Usage

```
<configuration>
   <routing-options>
      <rib>
         <aggregate>
            <defaults>
               <color2>
                  <metric-value>metric-value</metric-value>     <!-- mandatory -->
                  <type>type</type>
               </color2>
            </defaults>
         </aggregate>
      </rib>
   </routing-options>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration / routing-options / rib / aggregate / route)

Usage

```
<configuration>
   <routing-options>
      <rib>
         <aggregate>
            <route>
               <color2>
                  <metric-value>metric-value</metric-value>     <!-- mandatory -->
                  <type>type</type>
               </color2>
            </route>
         </aggregate>
      </rib>
   </routing-options>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration/routing-options/rib/generate/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <defaults>
          <color2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </color2>
        </defaults>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration/routing-options/rib/generate/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <route>
          <color2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </color2>
        </route>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <defaults>
          <color2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </color2>
        </defaults>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <route>
          <color2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </color2>
        </route>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <static>
      <defaults>
        <color2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </color2>
      </defaults>
    </static>
  </routing-options>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<color2> (configuration/routing-options/static/route)

Usage

```
<configuration>
  <routing-options>
    <static>
      <route>
        <color2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </color2>
      </route>
    </static>
  </routing-options>
</configuration>
```

Description Color (preference) value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<community> (configuration/policy-options)

Usage

```
<configuration>
  <policy-options>
    <community>
      <name>name</name>     <!-- identifier -->
      <members>...</members>
    </community>
  </policy-options>
</configuration>
```

Description BGP community information.

Contents <members>—Community members.

<name>—Name to identify BGP community.

<community> (configuration/policy-options/policy-statement/from)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <community>
          <name>name</name>     <!-- identifier -->
        </community>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description BGP community.

Contents <name>—BGP community.

<community> (configuration / policy-options / policy-statement / from / route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <community>
            <equal-literal/>    <!-- identifier -->
            <set/>    <!-- identifier -->
            <plus-literal/>    <!-- identifier -->
            <add/>    <!-- identifier -->
            <minus-literal/>    <!-- identifier -->
            <delete/>    <!-- identifier -->
            <community-name>community-name</community-name>    <!-- identifier -->
          </community>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description BGP community properties associated with a route.

Contents <add>—Add BGP communities to the route.

<community-name>—Name to identify a BGP community.

<delete>—Remove BGP communities from the route.

<equal-literal>—Set the BGP communities in the route.

<minus-literal>—Remove BGP communities from the route.

<plus-literal>—Add BGP communities to the route.

<set>—Set the BGP communities in the route.

<community> (configuration / policy-options / policy-statement / from / source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <community>
            <equal-literal/>    <!-- identifier -->
            <set/>    <!-- identifier -->
            <plus-literal/>    <!-- identifier -->
            <add/>    <!-- identifier -->
            <minus-literal/>    <!-- identifier -->
            <delete/>    <!-- identifier -->
            <community-name>community-name</community-name>    <!-- identifier -->
          </community>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description BGP community properties associated with a route.

Contents

<add>—Add BGP communities to the route.

<community-name>—Name to identify a BGP community.

<delete>—Remove BGP communities from the route.

<equal-literal>—Set the BGP communities in the route.

<minus-literal>—Remove BGP communities from the route.

<plus-literal>—Add BGP communities to the route.

<set>—Set the BGP communities in the route.

<community> (configuration/policy-options/policy-statement/term/from)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <community>
            <name>name</name>     <!-- identifier -->
          </community>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description BGP community.

Contents <name>—BGP community.

<community> (configuration/policy-options/policy-statement/term/from/route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <community>
              <equal-literal/>     <!-- identifier -->
              <set/>     <!-- identifier -->
              <plus-literal/>     <!-- identifier -->
              <add/>     <!-- identifier -->
              <minus-literal/>     <!-- identifier -->
              <delete/>     <!-- identifier -->
              <community-name>community-name</community-name> <!-- identifier -->
            </community>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description BGP community properties associated with a route.

Contents <add>—Add BGP communities to the route.

<community-name>—Name to identify a BGP community.

<delete>—Remove BGP communities from the route.

<equal-literal>—Set the BGP communities in the route.

<minus-literal>—Remove BGP communities from the route.

<plus-literal>—Add BGP communities to the route.

<set>—Set the BGP communities in the route.

<community> (configuration/policy-options/policy-statement/term/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <community>
              <equal-literal/>    <!-- identifier -->
              <set/>    <!-- identifier -->
              <plus-literal/>    <!-- identifier -->
              <add/>    <!-- identifier -->
              <minus-literal/>    <!-- identifier -->
              <delete/>    <!-- identifier -->
              <community-name>community-name</community-name> <!-- identifier -->
            </community>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description BGP community properties associated with a route.

Contents <add>—Add BGP communities to the route.

<community-name>—Name to identify a BGP community.

<delete>—Remove BGP communities from the route.

<equal-literal>—Set the BGP communities in the route.

<minus-literal>—Remove BGP communities from the route.

<plus-literal>—Add BGP communities to the route.

<set>—Set the BGP communities in the route.

<community> (configuration/policy-options/policy-statement/term/then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <community>
            <equal-literal/>    <!-- identifier -->
            <set/>    <!-- identifier -->
            <plus-literal/>    <!-- identifier -->
            <add/>    <!-- identifier -->
            <minus-literal/>    <!-- identifier -->
            <delete/>    <!-- identifier -->
            <community-name>community-name</community-name>    <!-- identifier -->
          </community>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description BGP community properties associated with a route.

Contents <add>—Add BGP communities to the route.

<community-name>—Name to identify a BGP community.

<delete>—Remove BGP communities from the route.

<equal-literal>—Set the BGP communities in the route.

<minus-literal>—Remove BGP communities from the route.

<plus-literal>—Add BGP communities to the route.

<set>—Set the BGP communities in the route.

<community> (configuration/policy-options/policy-statement/term/to)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <to>
          <community>
            <name>name</name>     <!-- identifier -->
          </community>
        </to>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description BGP community.

Contents <name>—BGP community.

<community> (configuration/policy-options/policy-statement/then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <then>
        <community>
          <equal-literal/>     <!-- identifier -->
          <set/>     <!-- identifier -->
          <plus-literal/>     <!-- identifier -->
          <add/>     <!-- identifier -->
          <minus-literal/>     <!-- identifier -->
          <delete/>     <!-- identifier -->
          <community-name>community-name</community-name>     <!-- identifier -->
        </community>
      </then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description BGP community properties associated with a route.

Contents <add>—Add BGP communities to the route.

<community-name>—Name to identify a BGP community.

<delete>—Remove BGP communities from the route.

<equal-literal>—Set the BGP communities in the route.

<minus-literal>—Remove BGP communities from the route.

<plus-literal>—Add BGP communities to the route.

<set>—Set the BGP communities in the route.

<community> (configuration/policy-options/policy-statement/to)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <to>
        <community>
          <name>name</name>     <!-- identifier -->
        </community>
      </to>
    </policy-statement>
  </policy-options>
</configuration>
```

Description BGP community.

Contents <name>—BGP community.

<community> (configuration/routing-instances/instance/routing-options/aggregate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <defaults>
            <community>
              <name>name</name>     <!-- identifier -->
            </community>
          </defaults>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration / routing-instances / instance / routing-options / aggregate / route)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <aggregate>
               <route>
                  <community>
                     <name>name</name>     <!-- identifier -->
                  </community>
               </route>
            </aggregate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration / routing-instances / instance / routing-options / generate / defaults)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <generate>
               <defaults>
                  <community>
                     <name>name</name>     <!-- identifier -->
                  </community>
               </defaults>
            </generate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration/routing-instances/instance/routing-options/generate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <generate>
          <route>
            <community>
              <name>name</name>     <!-- identifier -->
            </community>
          </route>
        </generate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration/routing-instances/instance/routing-options/rib/aggregate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <defaults>
              <community>
                <name>name</name>     <!-- identifier -->
              </community>
            </defaults>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration / routing-instances / instance / routing-options / rib / aggregate / route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <route>
              <community>
                <name>name</name>     <!-- identifier -->
              </community>
            </route>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration / routing-instances / instance / routing-options / rib / generate / defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <defaults>
              <community>
                <name>name</name>     <!-- identifier -->
              </community>
            </defaults>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration / routing-instances / instance / routing-options / rib / generate / route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <route>
              <community>
                <name>name</name>     <!-- identifier -->
              </community>
            </route>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration / routing-instances / instance / routing-options / rib / static / defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <defaults>
              <community>
                <name>name</name>     <!-- identifier -->
              </community>
            </defaults>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration/routing-instances/instance/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <route>
              <community>
                <name>name</name>     <!-- identifier -->
              </community>
            </route>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration/routing-instances/instance/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <defaults>
            <community>
              <name>name</name>     <!-- identifier -->
            </community>
          </defaults>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration/routing-instances/instance/routing-options/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <route>
            <community>
              <name>name</name>     <!-- identifier -->
            </community>
          </route>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration/routing-options/aggregate/defaults)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <defaults>
        <community>
          <name>name</name>     <!-- identifier -->
        </community>
      </defaults>
    </aggregate>
  </routing-options>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration/routing-options/aggregate/route)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <route>
        <community>
          <name>name</name>     <!-- identifier -->
        </community>
      </route>
    </aggregate>
  </routing-options>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration/routing-options/generate/defaults)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <defaults>
        <community>
          <name>name</name>     <!-- identifier -->
        </community>
      </defaults>
    </generate>
  </routing-options>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration/routing-options/generate/route)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <route>
        <community>
          <name>name</name>     <!-- identifier -->
        </community>
      </route>
    </generate>
  </routing-options>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration/routing-options/rib/aggregate/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <defaults>
          <community>
            <name>name</name>     <!-- identifier -->
          </community>
        </defaults>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration/routing-options/rib/aggregate/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <route>
          <community>
            <name>name</name>     <!-- identifier -->
          </community>
        </route>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration / routing-options / rib / generate / defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <defaults>
          <community>
            <name>name</name>     <!-- identifier -->
          </community>
        </defaults>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration / routing-options / rib / generate / route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <route>
          <community>
            <name>name</name>     <!-- identifier -->
          </community>
        </route>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <defaults>
          <community>
            <name>name</name>     <!-- identifier -->
          </community>
        </defaults>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <route>
          <community>
            <name>name</name>     <!-- identifier -->
          </community>
        </route>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <static>
      <defaults>
        <community>
          <name>name</name>     <!-- identifier -->
        </community>
      </defaults>
    </static>
  </routing-options>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration/routing-options/static/route)

Usage

```
<configuration>
  <routing-options>
    <static>
      <route>
        <community>
          <name>name</name>     <!-- identifier -->
        </community>
      </route>
    </static>
  </routing-options>
</configuration>
```

Description BGP community identifier.

Contents <name>—BGP community identifier.

<community> (configuration/snmp)

Usage

```
<configuration>
  <snmp>
    <community>
      <name>name</name>     <!-- identifier -->
      <view>view</view>
      <authorization>authorization-choice</authorization>
      <clients>...</clients>
    </community>
  </snmp>
</configuration>
```

Description Configure a community string.

Contents <authorization>—Authorization type.

- read-only—Allow read-only access.
- read-write—Allow read and write access.

<clients>—List of source address prefix ranges to accept.

<name>—Community name.

<view>—View name.

<compatibility-mode> (configuration/interfaces/interface/e3-options)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <e3-options>
        <compatibility-mode>
          <larscom/>
          <digital-link>...</digital-link>
          <kentrox/>
        </compatibility-mode>
      </e3-options>
    </interface>
  </interfaces>
</configuration>
```

Description Set CSU compatibility mode.

Contents <digital-link>—Compatible with Digital Link CSU.

<kentrox>—Compatible with Kentrox CSU.

<larscom>—Compatible with Larscom CSU.

<compatibility-mode> (configuration / interfaces / interface / t3-options)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <t3-options>
        <compatibility-mode>
          <larscom>...</larscom>
          <digital-link>...</digital-link>
          <kentrox/>
        </compatibility-mode>
      </t3-options>
    </interface>
  </interfaces>
</configuration>
```

Description Set CSU compatibility mode.

Contents <digital-link>—Compatible with Digital Link CSU.

<kentrox>—Compatible with Kentrox CSU.

<larscom>—Compatible with Larscom CSU.

<confederation> (configuration / routing-instances / instance / routing-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <confederation>
          <confederation-as>confederation-as</confederation-as>     <!-- mandatory -->
          <members>...</members>
        </confederation>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Confederation autonomous system number.

Contents <confederation-as>—Confederation autonomous system number.

<members>—Autonomous system numbers of confederation members.

<confederation> (configuration/routing-options)

Usage

```
<configuration>
  <routing-options>
    <confederation>
      <confederation-as>confederation-as</confederation-as>     <!-- mandatory -->
      <members>...</members>
    </confederation>
  </routing-options>
</configuration>
```

Description Confederation autonomous system number.

Contents <confederation-as>—Confederation autonomous system number.

<members>—Autonomous system numbers of confederation members.

<connections> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <connections>
      <interface-switch>...</interface-switch>
      <remote-interface-switch>...</remote-interface-switch>
      <lsp-switch>...</lsp-switch>
    </connections>
  </protocols>
</configuration>
```

Description Circuit cross-connect configuration.

Contents <interface-switch>—Bidirectional switch between interfaces.

<lsp-switch>—Unidirectional switch between two label-switched paths.

<remote-interface-switch>—Bidirectional switch between a local and a remote interface.

<console> (configuration/system/ports)

Usage

```
<configuration>
  <system>
    <ports>
      <console>
        <insecure/>
        <type>type-choice</type>
      </console>
    </ports>
  </system>
</configuration>
```

Description Console port.

Contents <insecure>—Disallow superuser access.

<type>—Terminal type.

- ansi—ANSI-compatible terminal.
- small-xterm—Small (24-line) xterm window.
- vt100—VT100-compatible terminal.
- xterm—Large (65-line) xterm window.

<console> (configuration/system/syslog)

Usage

```
<configuration>
  <system>
    <syslog>
      <console>
        <name>name</name>     <!-- identifier -->
        <any/>
        <emergency/>
        <alert/>
        <critical/>
        <error/>
        <warning/>
        <notice/>
        <info/>
      </console>
    </syslog>
  </system>
</configuration>
```

Description Console logging.

Contents <alert>—Conditions that should be corrected immediately.

<any>—Matches any level.

<critical>—Critical conditions.

<emergency>—Panic conditions.

<error>—Error conditions.

<info>—Informational messages.

<name>—Facility type.

- any—Matches any facility.
- authorization—The authorization system.
- change-log—Configuration change log.
- conflict-log—Configuration conflict log.
- cron—The cron daemon.
- daemon—Various system daemons.
- firewall—Firewall filtering system.
- ftp—The File Transfer Protocol daemon.
- interactive-commands—Commands executed by the UI.
- kernel—Messages generated by the kernel.
- pfe—Messages generated by the Packet Forwarding Engine.
- user—Messages from random user processes.

<notice>—Conditions that should be handled specially.

<warning>—Warning messages.

<contents> (configuration/system/syslog/file)

Usage

```
<configuration>
  <system>
    <syslog>
      <file>
        <contents>
          <name>name</name>     <!-- identifier -->
          <any/>
          <emergency/>
          <alert/>
          <critical/>
          <error/>
          <warning/>
          <notice/>
          <info/>
        </contents>
      </file>
    </syslog>
  </system>
</configuration>
```

Description

No documentation is available yet.

Contents

<alert>—Conditions that should be corrected immediately.

<any>—Matches any level.

<critical>—Critical conditions.

<emergency>—Panic conditions.

<error>—Error conditions.

<info>—Informational messages.

<name>—Facility type.

- any—Matches any facility.
- authorization—The authorization system.
- change-log—Configuration change log.
- conflict-log—Configuration conflict log.
- cron—The cron daemon.
- daemon—Various system daemons.
- firewall—Firewall filtering system.
- ftp—The File Transfer Protocol daemon.
- interactive-commands—Commands executed by the UI.
- kernel—Messages generated by the kernel.

- pfe—Messages generated by the Packet Forwarding Engine.
- user—Messages from random user processes.

<notice>—Conditions that should be handled specially.

<warning>—Warning messages.

<contents> (configuration/system/syslog/host)

Usage

```
<configuration>
  <system>
    <syslog>
      <host>
        <contents>
          <name>name</name>     <!-- identifier -->
          <any/>
          <emergency/>
          <alert/>
          <critical/>
          <error/>
          <warning/>
          <notice/>
          <info/>
        </contents>
      </host>
    </syslog>
  </system>
</configuration>
```

Description No documentation is available yet.

Contents <alert>—Conditions that should be corrected immediately.

<any>—Matches any level.

<critical>—Critical conditions.

<emergency>—Panic conditions.

<error>—Error conditions.

<info>—Informational messages.

<name>—Facility type.

- any—Matches any facility.
- authorization—The authorization system.
- change-log—Configuration change log.
- conflict-log—Configuration conflict log.
- cron—The cron daemon.

- daemon—Various system daemons.
- firewall—Firewall filtering system.
- ftp—The File Transfer Protocol daemon.
- interactive-commands—Commands executed by the UI.
- kernel—Messages generated by the kernel.
- pfe—Messages generated by the Packet Forwarding Engine.
- user—Messages from random user processes.

<notice>—Conditions that should be handled specially.

<warning>—Warning messages.

<contents> (configuration/system/syslog/user)

Usage

```
<configuration>
  <system>
    <syslog>
      <user>
        <contents>
          <name>name</name>     <!-- identifier -->
          <any/>
          <emergency/>
          <alert/>
          <critical/>
          <error/>
          <warning/>
          <notice/>
          <info/>
        </contents>
      </user>
    </syslog>
  </system>
</configuration>
```

Description No documentation is available yet.

Contents <alert>—Conditions that should be corrected immediately.

<any>—Matches any level.

<critical>—Critical conditions.

<emergency>—Panic conditions.

<error>—Error conditions.

<info>—Informational messages.

<name>—Facility type.

- any—Matches any facility.
- authorization—The authorization system.
- change-log—Configuration change log.
- conflict-log—Configuration conflict log.
- cron—The cron daemon.
- daemon—Various system daemons.
- firewall—Firewall filtering system.
- ftp—The File Transfer Protocol daemon.
- interactive-commands—Commands executed by the UI.
- kernel—Messages generated by the kernel.
- pfe—Messages generated by the Packet Forwarding Engine.
- user—Messages from random user processes.

<notice>—Conditions that should be handled specially.

<warning>—Warning messages.

<context> (configuration/snmp/access)

Usage

```
<configuration>
  <snmp>
    <access>
      <context>
        <name>name</name>     <!-- identifier -->
        <description>description</description>
        <group>...</group>
      </context>
    </access>
  </snmp>
</configuration>
```

Description SNMPv3 context information.

Contents <description>—SNMPv3 context description.

<group>—Access group.

<name>—SNMPv3 context name.

<conversational-1> (configuration/services/ggsn/apn/quality-of-service)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <quality-of-service>
          <conversational-1>
            <name>name</name>     <!-- identifier -->
          </conversational-1>
        </quality-of-service>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description DSCP name for conversational class 1 traffic.

Contents <name>—DSCP name for conversational class 1 traffic.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- be—Best effort forwarding.
- ef—Expedited forwarding.

<conversational-1> (configuration/services/ggsn/gtp/quality-of-service)

Usage

```
<configuration>
  <services>
    <ggsn>
      <gtp>
        <quality-of-service>
          <conversational-1>
            <name>name</name>     <!-- identifier -->
          </conversational-1>
        </quality-of-service>
      </gtp>
    </ggsn>
  </services>
</configuration>
```

Description DSCP name for conversational class 1 traffic.

Contents <name>—DSCP name for conversational class 1 traffic.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- be—Best effort forwarding.
- ef—Expedited forwarding.

<conversational-2> (configuration/services/ggsn/apn/quality-of-service)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <quality-of-service>
          <conversational-2>
            <name>name</name>     <!-- identifier -->
          </conversational-2>
        </quality-of-service>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description DSCP name for conversational class 2 traffic.

Contents <name>—DSCP name for conversational class 2 traffic.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- be—Best effort forwarding.
- ef—Expedited forwarding.

<conversational-2> (configuration/services/ggsn/gtp/quality-of-service)

Usage

```
<configuration>
  <services>
    <ggsn>
      <gtp>
        <quality-of-service>
          <conversational-2>
            <name>name</name>     <!-- identifier -->
          </conversational-2>
        </quality-of-service>
      </gtp>
    </ggsn>
  </services>
</configuration>
```

Description DSCP name for conversational class 2 traffic.

Contents <name>—DSCP name for conversational class 2 traffic.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- be—Best effort forwarding.
- ef—Expedited forwarding.

<counters> (configuration/accounting-options/filter-profile)

Usage

```
<configuration>
  <accounting-options>
    <filter-profile>
      <counters>
        <name>name</name>     <!-- identifier -->
      </counters>
    </filter-profile>
  </accounting-options>
</configuration>
```

Description Name of counter.

Contents <name>—Name of counter.

<csnp-interval> (configuration/protocols/isis/interface)

Usage

```
<configuration>
  <protocols>
    <isis>
      <interface>
        <csnp-interval>
          <csnp-interval-number>seconds</csnp-interval-number>
          <disable/>
        </csnp-interval>
      </interface>
    </isis>
  </protocols>
</configuration>
```

Description Rate of CSN packets.

Contents <csnp-interval-number>—Interval between CSN packets.

<disable>—Do not send CSN packets on this interface.

<csnp-interval> (configuration/routing-instances/instance/protocols/isis/interface)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <isis>
          <interface>
            <csnp-interval>
              <csnp-interval-number>seconds</csnp-interval-number>
              <disable/>
            </csnp-interval>
          </interface>
        </isis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Rate of CSN packets.

Contents <csnp-interval-number>—Interval between CSN packets.

<disable>—Do not send CSN packets on this interface.

<ct3> (configuration/chassis/fpc/pic)

Usage

```
<configuration>
  <chassis>
    <fpc>
      <pic>
        <ct3>
          <port>...</port>
        </ct3>
      </pic>
    </fpc>
  </chassis>
</configuration>
```

Description CT3 NxDS0 PIC configuration.

Contents <port>—Ct3 port.

<damping> (configuration/policy-options)

Usage

```
<configuration>
  <policy-options>
    <damping>
      <name>name</name>     <!-- identifier -->
      <disable/>
      <half-life>minutes</half-life>
      <reuse>reuse</reuse>
      <suppress>suppress</suppress>
      <max-suppress>minutes</max-suppress>
    </damping>
  </policy-options>
</configuration>
```

Description BGP route flap damping properties.

Contents <disable>—Disable damping.

<half-life>—Decay half-life.

<max-suppress>—Maximum hold-down time.

<name>—Name to identify route flap damping parameters.

<reuse>—Reuse threshold (figure-of-merit value).

<suppress>—Cutoff threshold (figure-of-merit value).

<default-characteristics> (configuration/services/ggsn/charging/characteristics)

Usage

```
<configuration>
  <services>
    <ggsn>
      <charging>
        <characteristics>
          <default-characteristics>
            <volume-limit>kilobytes</volume-limit>
            <time-limit>minutes</time-limit>
            <call-detail/>
            <change-limit>change-limit</change-limit>
          </default-characteristics>
        </characteristics>
      </charging>
    </ggsn>
  </services>
</configuration>
```

Description Default charging characteristics.

Contents <call-detail>—Generate call detail records.

<change-limit>—Maximum record changes to buffer on PIC.

<time-limit>—Time to buffer charging data.

<volume-limit>—Volume of charging data to buffer.

<default-lsa> (configuration/protocols/ospf/area/nssa)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <area>
        <nssa>
          <default-lsa>
            <default-metric>default-metric</default-metric>
            <metric-type>metric-type</metric-type>
            <type-7/>
          </default-lsa>
        </nssa>
      </area>
    </ospf>
  </protocols>
</configuration>
```

Description Configure a default LSA.

Contents <default-metric>—Metric for the default route in this area.

<metric-type>—External metric type for the default type 7 LSA.

<type-7>—Flood type 7 default LSA if no-summaries is configured.

<default-lsa> (configuration/protocols/ospf3/area/nssa)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <area>
        <nssa>
          <default-lsa>
            <default-metric>default-metric</default-metric>
            <metric-type>metric-type</metric-type>
            <type-7/>
          </default-lsa>
        </nssa>
      </area>
    </ospf3>
  </protocols>
</configuration>
```

Description Configure a default LSA.

Contents <default-metric>—Metric for the default route in this area.

<metric-type>—External metric type for the default type 7 LSA.

<type-7>—Flood type 7 default LSA if no-summaries is configured.

<default-lsa> (configuration/routing-instances/instance/protocols/ospf/area/nssa)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <area>
            <nssa>
              <default-lsa>
                <default-metric>default-metric</default-metric>
                <metric-type>metric-type</metric-type>
                <type-7/>
              </default-lsa>
            </nssa>
          </area>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure a default LSA.

Contents <default-metric>—Metric for the default route in this area.

<metric-type>—External metric type for the default type 7 LSA.

<type-7>—Flood type 7 default LSA if no-summaries is configured.

<defaults> (configuration/routing-instances/instance/routing-options/aggregate)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <defaults>
            <metric>...</metric>
            <metric2>...</metric2>
            <metric3>...</metric3>
            <metric4>...</metric4>
            <tag>...</tag>
            <tag2>...</tag2>
            <preference>...</preference>
            <preference2>...</preference2>
            <color>...</color>
            <color2>...</color2>
            <community>...</community>
            <as-path>...</as-path>
            <discard/>
            <brief/>
            <full/>
            <active/>
            <passive/>
          </defaults>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Global route options.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<brief>—Include longest common sequences from contributing paths.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<full>—Include all AS numbers from all contributing paths.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<passive>—Retain inactive route in forwarding table.

<preference>—Preference value.

<preference2>—Preference value 2.

<tag>—Tag string.

<tag2>—Tag string 2.

<defaults> (configuration/routing-instances/instance/routing-options/generate)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <generate>
          <defaults>
            <metric>...</metric>
            <metric2>...</metric2>
            <metric3>...</metric3>
            <metric4>...</metric4>
            <tag>...</tag>
            <tag2>...</tag2>
            <preference>...</preference>
            <preference2>...</preference2>
            <color>...</color>
            <color2>...</color2>
            <community>...</community>
            <as-path>...</as-path>
            <discard/>
            <brief/>
            <full/>
            <active/>
            <passive/>
          </defaults>
        </generate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Global route options.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<brief>—Include longest common sequences from contributing paths.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<full>—Include all AS numbers from all contributing paths.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<passive>—Retain inactive route in forwarding table.

<preference>—Preference value.

<preference2>—Preference value 2.

<tag>—Tag string.

<tag2>—Tag string 2.

<defaults> (configuration/routing-instances/instance/routing-options/rib/aggregate)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <defaults>
              <metric>...</metric>
              <metric2>...</metric2>
              <metric3>...</metric3>
              <metric4>...</metric4>
              <tag>...</tag>
              <tag2>...</tag2>
              <preference>...</preference>
              <preference2>...</preference2>
              <color>...</color>
              <color2>...</color2>
              <community>...</community>
              <as-path>...</as-path>
              <discard/>
              <brief/>
              <full/>
              <active/>
              <passive/>
            </defaults>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Global route options.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<brief>—Include longest common sequences from contributing paths.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<full>—Include all AS numbers from all contributing paths.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<passive>—Retain inactive route in forwarding table.

<preference>—Preference value.

<preference2>—Preference value 2.

<tag>—Tag string.

<tag2>—Tag string 2.

<defaults> (configuration/routing-instances/instance/routing-options/rib/generate)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <defaults>
              <metric>...</metric>
              <metric2>...</metric2>
              <metric3>...</metric3>
              <metric4>...</metric4>
              <tag>...</tag>
              <tag2>...</tag2>
              <preference>...</preference>
              <preference2>...</preference2>
              <color>...</color>
              <color2>...</color2>
              <community>...</community>
              <as-path>...</as-path>
              <discard/>
              <brief/>
              <full/>
              <active/>
              <passive/>
            </defaults>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Global route options.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<brief>—Include longest common sequences from contributing paths.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<full>—Include all AS numbers from all contributing paths.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<passive>—Retain inactive route in forwarding table.

<preference>—Preference value.

<preference2>—Preference value 2.

<tag>—Tag string.

<tag2>—Tag string 2.

<defaults> (configuration/routing-instances/instance/routing-options/rib/static)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <defaults>
              <retain/>
              <install/>
              <readvertise/>
              <resolve/>
              <active/>
              <passive/>
              <metric>...</metric>
              <metric2>...</metric2>
              <metric3>...</metric3>
              <metric4>...</metric4>
              <tag>...</tag>
              <tag2>...</tag2>
              <preference>...</preference>
              <preference2>...</preference2>
              <color>...</color>
              <color2>...</color2>
              <community>...</community>
              <as-path>...</as-path>
            </defaults>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Global route options.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<install>—Install route into forwarding table.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<passive>—Retain inactive route in forwarding table.

<preference>—Preference value.

<preference2>—Preference value 2.

<readvertise>—Mark route as eligible to be readvertised.

<resolve>—Allow resolution of indirectly connected next hops.

<retain>—Always keep route in forwarding table.

<tag>—Tag string.

<tag2>—Tag string 2.

<defaults> (configuration/routing-instances/instance/routing-options/static)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <defaults>
            <retain/>
            <install/>
            <readvertise/>
            <resolve/>
            <active/>
            <passive/>
            <metric>...</metric>
            <metric2>...</metric2>
            <metric3>...</metric3>
            <metric4>...</metric4>
            <tag>...</tag>
            <tag2>...</tag2>
            <preference>...</preference>
            <preference2>...</preference2>
            <color>...</color>
            <color2>...</color2>
            <community>...</community>
            <as-path>...</as-path>
          </defaults>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Global route options.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<install>—Install route into forwarding table.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<passive>—Retain inactive route in forwarding table.

<preference>—Preference value.

<preference2>—Preference value 2.

<readvertise>—Mark route as eligible to be readvertised.

<resolve>—Allow resolution of indirectly connected next hops.

<retain>—Always keep route in forwarding table.

<tag>—Tag string.

<tag2>—Tag string 2.

<defaults> (configuration/routing-options/aggregate)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <defaults>
        <metric>...</metric>
        <metric2>...</metric2>
        <metric3>...</metric3>
        <metric4>...</metric4>
        <tag>...</tag>
        <tag2>...</tag2>
        <preference>...</preference>
        <preference2>...</preference2>
        <color>...</color>
        <color2>...</color2>
        <community>...</community>
        <as-path>...</as-path>
        <discard/>
        <brief/>
        <full/>
        <active/>
        <passive/>
      </defaults>
    </aggregate>
  </routing-options>
</configuration>
```

Description Global route options.

Contents

<active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<brief>—Include longest common sequences from contributing paths.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<full>—Include all AS numbers from all contributing paths.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<passive>—Retain inactive route in forwarding table.

<preference>—Preference value.

<preference2>—Preference value 2.

<tag>—Tag string.

<tag2>—Tag string 2.

<defaults> (configuration/routing-options/generate)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <defaults>
        <metric>...</metric>
        <metric2>...</metric2>
        <metric3>...</metric3>
        <metric4>...</metric4>
        <tag>...</tag>
        <tag2>...</tag2>
        <preference>...</preference>
        <preference2>...</preference2>
        <color>...</color>
        <color2>...</color2>
        <community>...</community>
        <as-path>...</as-path>
        <discard/>
        <brief/>
        <full/>
        <active/>
        <passive/>
      </defaults>
    </generate>
  </routing-options>
</configuration>
```

Description Global route options.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<brief>—Include longest common sequences from contributing paths.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<full>—Include all AS numbers from all contributing paths.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<passive>—Retain inactive route in forwarding table.

<preference>—Preference value.

<preference2>—Preference value 2.

<tag>—Tag string.

<tag2>—Tag string 2.

<defaults> (configuration/routing-options/rib/aggregate)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <defaults>
          <metric>...</metric>
          <metric2>...</metric2>
          <metric3>...</metric3>
          <metric4>...</metric4>
          <tag>...</tag>
          <tag2>...</tag2>
          <preference>...</preference>
          <preference2>...</preference2>
          <color>...</color>
          <color2>...</color2>
          <community>...</community>
          <as-path>...</as-path>
          <discard/>
          <brief/>
          <full/>
          <active/>
          <passive/>
        </defaults>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Global route options.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<brief>—Include longest common sequences from contributing paths.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<full>—Include all AS numbers from all contributing paths.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<passive>—Retain inactive route in forwarding table.

<preference>—Preference value.

<preference2>—Preference value 2.

<tag>—Tag string.

<tag2>—Tag string 2.

<defaults> (configuration/routing-options/rib/generate)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <defaults>
          <metric>...</metric>
          <metric2>...</metric2>
          <metric3>...</metric3>
          <metric4>...</metric4>
          <tag>...</tag>
          <tag2>...</tag2>
          <preference>...</preference>
          <preference2>...</preference2>
          <color>...</color>
          <color2>...</color2>
          <community>...</community>
          <as-path>...</as-path>
          <discard/>
          <brief/>
          <full/>
          <active/>
          <passive/>
        </defaults>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Global route options.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<brief>—Include longest common sequences from contributing paths.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<full>—Include all AS numbers from all contributing paths.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<passive>—Retain inactive route in forwarding table.

<preference>—Preference value.

<preference2>—Preference value 2.

<tag>—Tag string.

<tag2>—Tag string 2.

<defaults> (configuration/routing-options/rib/static)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <defaults>
          <retain/>
          <install/>
          <readvertise/>
          <resolve/>
          <active/>
          <passive/>
          <metric>...</metric>
          <metric2>...</metric2>
          <metric3>...</metric3>
          <metric4>...</metric4>
          <tag>...</tag>
          <tag2>...</tag2>
          <preference>...</preference>
          <preference2>...</preference2>
          <color>...</color>
          <color2>...</color2>
          <community>...</community>
          <as-path>...</as-path>
        </defaults>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Global route options.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<install>—Install route into forwarding table.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<passive>—Retain inactive route in forwarding table.

<preference>—Preference value.

<preference2>—Preference value 2.

<readvertise>—Mark route as eligible to be readvertised.

<resolve>—Allow resolution of indirectly connected next hops.

<retain>—Always keep route in forwarding table.

<tag>—Tag string.

<tag2>—Tag string 2.

<defaults> (configuration/routing-options/static)

Usage

```
<configuration>
  <routing-options>
    <static>
      <defaults>
        <retain/>
        <install/>
        <readvertise/>
        <resolve/>
        <active/>
        <passive/>
        <metric>...</metric>
        <metric2>...</metric2>
        <metric3>...</metric3>
        <metric4>...</metric4>
        <tag>...</tag>
        <tag2>...</tag2>
        <preference>...</preference>
        <preference2>...</preference2>
        <color>...</color>
        <color2>...</color2>
        <community>...</community>
        <as-path>...</as-path>
      </defaults>
    </static>
  </routing-options>
</configuration>
```

Description Global route options.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<install>—Install route into forwarding table.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<passive>—Retain inactive route in forwarding table.

<preference>—Preference value.

<preference2>—Preference value 2.

<readvertise>—Mark route as eligible to be readvertised.

<resolve>—Allow resolution of indirectly connected next hops.

<retain>—Always keep route in forwarding table.

<tag>—Tag string.

<tag2>—Tag string 2.

<dense-groups> (configuration/protocols/pim)

Usage

```
<configuration>
  <protocols>
    <pim>
      <dense-groups>
        <name>name</name>     <!-- identifier -->
        <reject/>
        <announce/>
      </dense-groups>
    </pim>
  </protocols>
</configuration>
```

Description Dense mode groups for sparse-dense mode.

Contents <announce>—Advertise as negative prefix in auto-RP announce messages.

<name>—Group address or range to forward in dense mode.

<reject>—Do not include prefix as dense mode; force sparse mode.

<dense-groups> (configuration / routing-instances / instance / protocols / pim)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <dense-groups>
            <name>name</name>     <!-- identifier -->
            <reject/>
            <announce/>
          </dense-groups>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Dense mode groups for sparse-dense mode.

Contents <announce>—Advertise as negative prefix in auto-RP announce messages.

<name>—Group address or range to forward in dense mode.

<reject>—Do not include prefix as dense mode; force sparse mode.

<destination-address> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <destination-address>
                <name>name</name>     <!-- identifier -->
                <except/>
              </destination-address>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match IP destination address.

Contents <except>—Match address not in this prefix.

<name>—Prefix to match.

<destination-address> (configuration / firewall / family / inet6 / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <destination-address>
                <name>name</name>     <!-- identifier -->
                <except/>
              </destination-address>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Match IP destination address.

Contents <except>—Match address not in this prefix.

<name>—Prefix to match.

<destination-address> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <destination-address>
            <name>name</name>     <!-- identifier -->
            <except/>
          </destination-address>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match IP destination address.

Contents <except>—Match address not in this prefix.

<name>—Prefix to match.

<destination-classes> (configuration/accounting-options/class-usage-profile)

Usage

```
<configuration>
  <accounting-options>
    <class-usage-profile>
      <destination-classes>
        <name>name</name>     <!-- identifier -->
      </destination-classes>
    </class-usage-profile>
  </accounting-options>
</configuration>
```

Description Name of destination class.

Contents <name>—Class name.

<destination-port> (configuration/firewall/family/inet/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <destination-port>
                <name>name</name>     <!-- identifier -->
              </destination-port>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match TCP/UDP destination port.

Contents <name>—No documentation is available yet.

- afs—Andrew File System.
- bgp—BGP.
- biff—Biff/Comsat.
- bootpc—BOOTP client.
- bootps—BOOTP server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—DHCP.

- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—HTTP.
- https—Secure HTTP.
- ident—Ident.
- imap—IMAP.
- kerberos-sec—Kerberos Sec.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos db propagation.
- krbupdate—Kerberos db update.
- kshell—Kerberos rsh.
- ldap—LDAP.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.
- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- name—Range of values.
- netbios-dgm—NETBIOS DGM.
- netbios-ns—NETBIOS NS.
- netbios-ssn—NETBIOS SSN.
- nfsd—NFS.
- nntp—NNTP.

- ntalk—New Talk.
- ntp—NTP.
- pop3—POP3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.
- radius—RADIUS authentication.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—SMTP.
- snmp—SNMP.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell (ssh).
- sunrpc—SUN RPC.
- syslog—System log.
- tacacs—TACACS (original, not TACACS +).
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—TFTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—XDMCP.

<destination-port> (configuration / firewall / family / inet6 / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <destination-port>
                <name>name</name>     <!-- identifier -->
              </destination-port>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Match TCP/UDP destination port.

Contents <name>—No documentation is available yet.

- afs—Andrew File System.
- bgp—BGP.
- biff—Biff/Comsat.
- bootpc—BOOTP client.
- bootps—BOOTP server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—DHCP.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—HTTP.
- https—Secure HTTP.

- ident—Ident.
- imap—IMAP.
- kerberos-sec—Kerberos Sec.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos db propagation.
- krbupdate—Kerberos db update.
- kshell—Kerberos rsh.
- ldap—LDAP.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.
- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- name—Range of values.
- netbios-dgm—NETBIOS DGM.
- netbios-ns—NETBIOS NS.
- netbios-ssn—NETBIOS SSN.
- nfsd—NFS.
- nntp—NNTP.
- ntalk—New Talk.
- ntp—NTP.
- pop3—POP3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.
- radius—RADIUS authentication.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.

- smtp—SMTP.
- snmp—SNMP.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell (ssh).
- sunrpc—SUN RPC.
- syslog—System log.
- tacacs—TACACS (original, not TACACS +).
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—TFTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—XDMCP.

<destination-port> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <destination-port>
            <name>name</name>     <!-- identifier -->
          </destination-port>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match TCP/UDP destination port.

Contents <name>—No documentation is available yet.

- afs—Andrew File System.
- bgp—BGP.
- biff—Biff/Comsat.

- bootpc—BOOTP client.
- bootps—BOOTP server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—DHCP.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—HTTP.
- https—Secure HTTP.
- ident—Ident.
- imap—IMAP.
- kerberos-sec—Kerberos Sec.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos db propagation.
- krbupdate—Kerberos db update.
- kshell—Kerberos rsh.
- ldap—LDAP.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.
- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- name—Range of values.

- netbios-dgm—NETBIOS DGM.
- netbios-ns—NETBIOS NS.
- netbios-ssn—NETBIOS SSN.
- nfsd—NFS.
- nntp—NNTP.
- ntalk—New Talk.
- ntp—NTP.
- pop3—POP3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.
- radius—RADIUS authentication.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—SMTP.
- snmp—SNMP.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell (ssh).
- sunrpc—SUN RPC.
- syslog—System log.
- tacacs—TACACS (original, not TACACS +).
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—TFTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—XDMCP.

<destination-port-except> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <destination-port-except>
                <name>name</name>     <!-- identifier -->
              </destination-port-except>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Do not match TCP/UDP destination port.

Contents <name>—No documentation is available yet.

- afs—Andrew File System.
- bgp—BGP.
- biff—Biff/Comsat.
- bootpc—BOOTP client.
- bootps—BOOTP server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—DHCP.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—HTTP.
- https—Secure HTTP.

- ident—Ident.
- imap—IMAP.
- kerberos-sec—Kerberos Sec.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos db propagation.
- krbupdate—Kerberos db update.
- kshell—Kerberos rsh.
- ldap—LDAP.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.
- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- name—Range of values.
- netbios-dgm—NETBIOS DGM.
- netbios-ns—NETBIOS NS.
- netbios-ssn—NETBIOS SSN.
- nfsd—NFS.
- nntp—NNTP.
- ntalk—New Talk.
- ntp—NTP.
- pop3—POP3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.
- radius—RADIUS authentication.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.

- smtp—SMTP.
- snmp—SNMP.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell (ssh).
- sunrpc—SUN RPC.
- syslog—System log.
- tacacs—TACACS (original, not TACACS +).
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—TFTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—XDMCP.

<destination-port-except> (configuration/firewall/family/inet6/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <destination-port-except>
                <name>name</name>     <!-- identifier -->
              </destination-port-except>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Do not match TCP/UDP destination port.

Contents <name>—No documentation is available yet.

- afs—Andrew File System.
- bgp—BGP.
- biff—Biff/Comsat.
- bootpc—BOOTP client.
- bootps—BOOTP server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—DHCP.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—HTTP.
- https—Secure HTTP.
- ident—Ident.
- imap—IMAP.
- kerberos-sec—Kerberos Sec.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos db propagation.
- krbupdate—Kerberos db update.
- kshell—Kerberos rsh.
- ldap—LDAP.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.

- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- name—Range of values.
- netbios-dgm—NETBIOS DGM.
- netbios-ns—NETBIOS NS.
- netbios-ssn—NETBIOS SSN.
- nfsd—NFS.
- nntp—NNTP.
- ntalk—New Talk.
- ntp—NTP.
- pop3—POP3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.
- radius—RADIUS authentication.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—SMTP.
- snmp—SNMP.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell (ssh).
- sunrpc—SUN RPC.
- syslog—System log.
- tacacs—TACACS (original, not TACACS +).
- talk—UNIX Talk.
- telnet—Telnet.

- tftp—TFTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—XDMCP.

<destination-port-except> (configuration/firewall/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <destination-port-except>
            <name>name</name>     <!-- identifier -->
          </destination-port-except>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Do not match TCP/UDP destination port.

Contents <name>—No documentation is available yet.

- afs—Andrew File System.
- bgp—BGP.
- biff—Biff/Comsat.
- bootpc—BOOTP client.
- bootps—BOOTP server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—DHCP.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.

- ftp-data—FTP data.
- http—HTTP.
- https—Secure HTTP.
- ident—Ident.
- imap—IMAP.
- kerberos-sec—Kerberos Sec.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos db propagation.
- krbupdate—Kerberos db update.
- kshell—Kerberos rsh.
- ldap—LDAP.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.
- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- name—Range of values.
- netbios-dgm—NETBIOS DGM.
- netbios-ns—NETBIOS NS.
- netbios-ssn—NETBIOS SSN.
- nfsd—NFS.
- nntp—NNTP.
- ntalk—New Talk.
- ntp—NTP.
- pop3—POP3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.

- radius—RADIUS authentication.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—SMTP.
- snmp—SNMP.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell (ssh).
- sunrpc—SUN RPC.
- syslog—System log.
- tacacs—TACACS (original, not TACACS +).
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—TFTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—XDMCP.

<destination-prefix-list> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <destination-prefix-list>
                <name>name</name>     <!-- identifier -->
                <except/>
              </destination-prefix-list>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match IP destination prefix list.

Contents <except>—Match addresses not in this prefix list.

<name>—Prefix list to match.

<destination-prefix-list> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <destination-prefix-list>
            <name>name</name>     <!-- identifier -->
            <except/>
          </destination-prefix-list>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match IP destination prefix list.

Contents <except>—Match addresses not in this prefix list.

<name>—Prefix list to match.

<dhcp> (configuration/services/ggsn/apn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <dhcp>
          <dhcp-server>...</dhcp-server>
          <outband-server>...</outband-server>
        </dhcp>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description DHCP server configuration.

Contents <dhcp-server>—DHCP server for APN.

<outband-server>—Shared DHCP server configuration.

<dhcp-server> (configuration/services/ggsn/apn/dhcp)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <dhcp>
          <dhcp-server>
            <name>name</name>     <!-- identifier -->
            <timeout>seconds</timeout>
            <retry>retry</retry>
          </dhcp-server>
        </dhcp>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description DHCP server for APN.

Contents <name>—DHCP server address.

<retry>—Retry attempts.

<timeout>—Request timeout period.

<diag-port-authentication> (configuration/system)

Usage

```
<configuration>
  <system>
    <diag-port-authentication>
      <plain-text-password-value>plain-text-password-value</plain-text-password-value>
      <encrypted-password>encrypted-password</encrypted-password>
    </diag-port-authentication>
  </system>
</configuration>
```

Description Authentication for the diagnostic port.

Contents <encrypted-password>—Crypted password string.

<plain-text-password-value>—Plain text password.

<digital-link> (configuration/interfaces/interface/e3-options/compatibility-mode)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <e3-options>
        <compatibility-mode>
          <digital-link>
            <subrate>subrate-choice</subrate>
          </digital-link>
        </compatibility-mode>
      </e3-options>
    </interface>
  </interfaces>
</configuration>
```

Description Compatible with Digital Link CSU.

Contents <subrate>—Set subrate value.

- 1.1Mb—1.1 Mbps.
- 1.4Mb—1.4 Mbps.
- 1.8Mb—1.8 Mbps.
- 10.0Mb—10.0 Mbps.
- 10.4Mb—10.4 Mbps.
- 10.7Mb—10.7 Mbps.
- 11.1Mb—11.1 Mbps.
- 11.5Mb—11.5 Mbps.
- 11.8Mb—11.8 Mbps.

- 12.2Mb—12.2 Mbps.
- 12.5Mb—12.5 Mbps.
- 12.9Mb—12.9 Mbps.
- 13.2Mb—13.2 Mbps.
- 13.6Mb—13.6 Mbps.
- 14.0Mb—14.0 Mbps.
- 14.3Mb—14.3 Mbps.
- 14.7Mb—14.7 Mbps.
- 15.0Mb—15.0 Mbps.
- 15.4Mb—15.4 Mbps.
- 15.8Mb—15.8 Mbps.
- 16.1Mb—16.1 Mbps.
- 16.5Mb—16.5 Mbps.
- 16.8Mb—16.8 Mbps.
- 17.2Mb—17.2 Mbps.
- 17.5Mb—17.5 Mbps.
- 17.9Mb—17.9 Mbps.
- 18.3Mb—18.3 Mbps.
- 18.6Mb—18.6 Mbps.
- 19.0Mb—19.0 Mbps.
- 19.3Mb—19.3 Mbps.
- 19.7Mb—19.7 Mbps.
- 2.1Mb—2.1 Mbps.
- 2.5Mb—2.5 Mbps.
- 2.9Mb—2.9 Mbps.
- 20.0Mb—20.0 Mbps.
- 20.4Mb—20.4 Mbps.
- 20.8Mb—20.8 Mbps.
- 21.1Mb—21.1 Mbps.

- 21.5Mb—21.5 Mbps.
- 21.8Mb—21.8 Mbps.
- 22.2Mb—22.2 Mbps.
- 22.6Mb—22.6 Mbps.
- 22.9Mb—22.9 Mbps.
- 23.3Mb—23.3 Mbps.
- 23.6Mb—23.6 Mbps.
- 24.0Mb—24.0 Mbps.
- 24.3Mb—24.3 Mbps.
- 24.7Mb—24.7 Mbps.
- 25.1Mb—25.1 Mbps.
- 25.4Mb—25.4 Mbps.
- 25.8Mb—25.8 Mbps.
- 26.1Mb—26.1 Mbps.
- 26.5Mb—26.5 Mbps.
- 26.9Mb—26.9 Mbps.
- 27.2Mb—27.2 Mbps.
- 27.6Mb—27.6 Mbps.
- 27.9Mb—27.9 Mbps.
- 28.3Mb—28.3 Mbps.
- 28.6Mb—28.6 Mbps.
- 29.0Mb—29.0 Mbps.
- 29.4Mb—29.4 Mbps.
- 29.7Mb—29.7 Mbps.
- 3.2Mb—3.2 Mbps.
- 3.6Mb—3.6 Mbps.
- 3.9Mb—3.9 Mbps.
- 30.1Mb—30.1 Mbps.
- 30.4Mb—30.4 Mbps.

- 30.8Mb—30.8 Mbps.
- 31.1Mb—31.1 Mbps.
- 31.5Mb—31.5 Mbps.
- 31.9Mb—31.9 Mbps.
- 32.2Mb—32.2 Mbps.
- 32.6Mb—32.6 Mbps.
- 32.9Mb—32.9 Mbps.
- 33.3Mb—33.3 Mbps.
- 33.7Mb—33.7 Mbps.
- 358Kb—358 Kbps.
- 4.3Mb—4.3 Mbps.
- 4.7Mb—4.7 Mbps.
- 5.0Mb—5.0 Mbps.
- 5.4Mb—5.4 Mbps.
- 5.7Mb—5.7 Mbps.
- 6.1Mb—6.1 Mbps.
- 6.4Mb—6.4 Mbps.
- 6.8Mb—6.8 Mbps.
- 7.2Mb—7.2 Mbps.
- 7.5Mb—7.5 Mbps.
- 7.9Mb—7.9 Mbps.
- 716Kb—716 Kbps.
- 8.2Mb—8.2 Mbps.
- 8.6Mb—8.6 Mbps.
- 9.0Mb—9.0 Mbps.
- 9.3Mb—9.3 Mbps.
- 9.7Mb—9.7 Mbps.

<digital-link> (configuration / interfaces / interface / t3-options / compatibility-mode)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <t3-options>
        <compatibility-mode>
          <digital-link>
            <subrate>subrate-choice</subrate>
          </digital-link>
        </compatibility-mode>
      </t3-options>
    </interface>
  </interfaces>
</configuration>
```

Description Compatible with Digital Link CSU.

Contents <subrate>—Set subrate value.

- 1.2Mb—1.2 Mbps.
- 1.5Mb—1.5 Mbps.
- 1.8Mb—1.8 Mbps.
- 10.2Mb—10.2 Mbps.
- 10.5Mb—10.5 Mbps.
- 10.8Mb—10.8 Mbps.
- 11.1Mb—11.1 Mbps.
- 11.4Mb—11.4 Mbps.
- 11.7Mb—11.7 Mbps.
- 12.0Mb—12.0 Mbps.
- 12.3Mb—12.3 Mbps.
- 12.6Mb—12.6 Mbps.
- 12.9Mb—12.9 Mbps.
- 13.2Mb—13.2 Mbps.
- 13.5Mb—13.5 Mbps.
- 13.8Mb—13.8 Mbps.
- 14.1Mb—14.1 Mbps.
- 14.4Mb—14.4 Mbps.

- 14.7Mb—14.7 Mbps.
- 15.0Mb—15.0 Mbps.
- 15.3Mb—15.3 Mbps.
- 15.6Mb—15.6 Mbps.
- 15.9Mb—15.9 Mbps.
- 16.2Mb—16.2 Mbps.
- 16.5Mb—16.5 Mbps.
- 16.8Mb—16.8 Mbps.
- 17.1Mb—17.1 Mbps.
- 17.4Mb—17.4 Mbps.
- 17.7Mb—17.7 Mbps.
- 18.0Mb—18.0 Mbps.
- 18.3Mb—18.3 Mbps.
- 18.6Mb—18.6 Mbps.
- 18.9Mb—18.9 Mbps.
- 19.2Mb—19.2 Mbps.
- 19.5Mb—19.5 Mbps.
- 19.8Mb—19.8 Mbps.
- 2.1Mb—2.1 Mbps.
- 2.4Mb—2.4 Mbps.
- 2.7Mb—2.7 Mbps.
- 20.1Mb—20.1 Mbps.
- 20.5Mb—20.5 Mbps.
- 20.8Mb—20.8 Mbps.
- 21.1Mb—21.1 Mbps.
- 21.4Mb—21.4 Mbps.
- 21.7Mb—21.7 Mbps.
- 22.0Mb—22.0 Mbps.
- 22.3Mb—22.3 Mbps.

- 22.6Mb—22.6 Mbps.
- 22.9Mb—22.9 Mbps.
- 23.2Mb—23.2 Mbps.
- 23.5Mb—23.5 Mbps.
- 23.8Mb—23.8 Mbps.
- 24.1Mb—24.1 Mbps.
- 24.4Mb—24.4 Mbps.
- 24.7Mb—24.7 Mbps.
- 25.0Mb—25.0 Mbps.
- 25.3Mb—25.3 Mbps.
- 25.6Mb—25.6 Mbps.
- 25.9Mb—25.9 Mbps.
- 26.2Mb—26.2 Mbps.
- 26.5Mb—26.5 Mbps.
- 26.8Mb—26.8 Mbps.
- 27.1Mb—27.1 Mbps.
- 27.4Mb—27.4 Mbps.
- 27.7Mb—27.7 Mbps.
- 28.0Mb—28.0 Mbps.
- 28.3Mb—28.3 Mbps.
- 28.6Mb—28.6 Mbps.
- 28.9Mb—28.9 Mbps.
- 29.2Mb—29.2 Mbps.
- 29.5Mb—29.5 Mbps.
- 29.8Mb—29.8 Mbps.
- 3.0Mb—3.0 Mbps.
- 3.3Mb—3.3 Mbps.
- 3.6Mb—3.6 Mbps.
- 3.9Mb—3.9 Mbps.

- 30.1Mb—30.1 Mbps.
- 30.4Mb—30.4 Mbps.
- 30.7Mb—30.7 Mbps.
- 301Kb—301 Kbps.
- 31.0Mb—31.0 Mbps.
- 31.3Mb—31.3 Mbps.
- 31.6Mb—31.6 Mbps.
- 31.9Mb—31.9 Mbps.
- 32.2Mb—32.2 Mbps.
- 32.5Mb—32.5 Mbps.
- 32.8Mb—32.8 Mbps.
- 33.1Mb—33.1 Mbps.
- 33.4Mb—33.4 Mbps.
- 33.7Mb—33.7 Mbps.
- 34.0Mb—34.0 Mbps.
- 34.3Mb—34.3 Mbps.
- 34.6Mb—34.6 Mbps.
- 34.9Mb—34.9 Mbps.
- 35.2Mb—35.2 Mbps.
- 35.5Mb—35.5 Mbps.
- 35.8Mb—35.8 Mbps.
- 36.1Mb—36.1 Mbps.
- 36.4Mb—36.4 Mbps.
- 36.7Mb—36.7 Mbps.
- 37.0Mb—37.0 Mbps.
- 37.3Mb—37.3 Mbps.
- 37.6Mb—37.6 Mbps.
- 37.9Mb—37.9 Mbps.
- 38.2Mb—38.2 Mbps.

- 38.5Mb—38.5 Mbps.
- 38.8Mb—38.8 Mbps.
- 39.1Mb—39.1 Mbps.
- 39.4Mb—39.4 Mbps.
- 39.7Mb—39.7 Mbps.
- 4.2Mb—4.2 Mbps.
- 4.5Mb—4.5 Mbps.
- 4.8Mb—4.8 Mbps.
- 40.0Mb—40.0 Mbps.
- 40.3Mb—40.3 Mbps.
- 40.6Mb—40.6 Mbps.
- 40.9Mb—40.9 Mbps.
- 41.2Mb—41.2 Mbps.
- 41.5Mb—41.5 Mbps.
- 41.8Mb—41.8 Mbps.
- 42.1Mb—42.1 Mbps.
- 42.4Mb—42.4 Mbps.
- 42.7Mb—42.7 Mbps.
- 43.0Mb—43.0 Mbps.
- 43.3Mb—43.3 Mbps.
- 43.6Mb—43.6 Mbps.
- 43.9Mb—43.9 Mbps.
- 44.2Mb—44.2 Mbps.
- 5.1Mb—5.1 Mbps.
- 5.4Mb—5.4 Mbps.
- 5.7Mb—5.7 Mbps.
- 6.0Mb—6.0 Mbps.
- 6.3Mb—6.3 Mbps.
- 6.6Mb—6.6 Mbps.

- 6.9Mb—6.9 Mbps.
- 601Kb—601 Kbps.
- 7.2Mb—7.2 Mbps.
- 7.5Mb—7.5 Mbps.
- 7.8Mb—7.8 Mbps.
- 8.1Mb—8.1 Mbps.
- 8.4Mb—8.4 Mbps.
- 8.7Mb—8.7 Mbps.
- 9.0Mb—9.0 Mbps.
- 9.3Mb—9.3 Mbps.
- 9.6Mb—9.6 Mbps.
- 9.9Mb—9.9 Mbps.
- 902Kb—902 Kbps.

<direction> (configuration/security/ipsec/security-association/manual)

Usage

```
<configuration>
  <security>
    <ipsec>
      <security-association>
        <manual>
          <direction>
            <name>name</name>     <!-- identifier -->
            <protocol>protocol-choice</protocol>
            <spi>spi</spi>     <!-- mandatory -->
            <auxiliary-spi>auxiliary-spi</auxiliary-spi>
            <authentication>...</authentication>
            <encryption>...</encryption>
          </direction>
        </manual>
      </security-association>
    </ipsec>
  </security>
</configuration>
```

Description Define the direction of the security association.

Contents <authentication>—Define authentication parameters.

<auxiliary-spi>—ESP Security Parameter Index for SA Bundle.

<encryption>—Define encryption parameters.

<name>—No documentation is available yet.

- bidirectional—Bidirectional SA.
- inbound—Inbound SA.
- outbound—Outbound SA.

<protocol>—Define an IPSec protocol for the SA.

- ah—Authentication header.
- bundle—Bundle (AH authentication + ESP encryption).
- esp—Encapsulated Security Payload header.

<spi>—Security Parameter Index for an SA.

<domain> (configuration/forwarding-options/helpers)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <domain>
        <description>description</description>
        <server>...</server>
        <interface>...</interface>
      </domain>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Incoming DNS request forwarding configuration.

Contents <description>—Text description of server.

<interface>—Incoming DNS request forwarding interface configuration.

<server>—Server information.

<domain-id> (configuration/protocols/ospf)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <domain-id>
        <domain-id>domain-id</domain-id>
        <disable/>
      </domain-id>
    </ospf>
  </protocols>
</configuration>
```

Description Configure domain ID.

Contents <disable>—Disable domain ID.

<domain-id>—Domain ID.

<domain-id> (configuration/protocols/ospf3)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <domain-id>
        <domain-id>domain-id</domain-id>
        <disable/>
      </domain-id>
    </ospf3>
  </protocols>
</configuration>
```

Description Configure domain ID.

Contents <disable>—Disable domain ID.

<domain-id>—Domain ID.

<domain-id> (configuration/routing-instances/instance/protocols/ospf)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <domain-id>
            <domain-id>domain-id</domain-id>
            <disable/>
          </domain-id>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure domain ID.

Contents <disable>—Disable domain ID.

<domain-id>—Domain ID.

<domain-search> (configuration / system)

Usage

```
<configuration>
  <system>
    <domain-search>
      <name>name</name>     <!-- identifier -->
    </domain-search>
  </system>
</configuration>
```

Description List of domain names to search.

Contents <name>—List of domain names to search.

<drop-probability> (configuration / class-of-service / drop-profiles / interpolate)

Usage

```
<configuration>
  <class-of-service>
    <drop-profiles>
      <interpolate>
        <drop-probability>
          <name>name</name>     <!-- identifier -->
        </drop-probability>
      </interpolate>
    </drop-profiles>
  </class-of-service>
</configuration>
```

Description Data points for packet drop probability.

Contents <name>—Data points for packet drop probability.

<drop-profile-map> (configuration / class-of-service / schedulers)

Usage

```
<configuration>
  <class-of-service>
    <schedulers>
      <drop-profile-map>
        <loss-priority>loss-priority-choice</loss-priority>     <!-- identifier -->
        <protocol>protocol-choice</protocol>     <!-- identifier -->
        <drop-profile>drop-profile</drop-profile>
      </drop-profile-map>
    </schedulers>
  </class-of-service>
</configuration>
```

Description Assign drop profile to a loss priority and protocol.

Contents <drop-profile>—Name of drop profile to apply.

<loss-priority>—Loss priority value.

- any—Ignore loss priority when assigning drop profile.
- high—Loss priority high.
- low—Loss priority low.

<protocol>—Protocol type.

- any—Ignore protocol type when assigning drop profile.
- non-tcp—Non-TCP protocols only.
- tcp—TCP protocol only.

<drop-profiles> (configuration / class-of-service)

Usage

```
<configuration>
  <class-of-service>
    <drop-profiles>
      <name>name</name>     <!-- identifier -->
      <fill-level>...</fill-level>
      <interpolate>...</interpolate>
    </drop-profiles>
  </class-of-service>
</configuration>
```

Description Random Early Drop (RED) data point map.

Contents <fill-level>—Fill-level value of data point.

<interpolate>—Data points interpolated.

<name>—Drop profile name.

<ds0-options> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <ds0-options>
        <byte-encoding>byte-encoding-choice</byte-encoding>
        <invert-data/>
        <fcs>fcs-choice</fcs>
        <idle-cycle-flag>idle-cycle-flag-choice</idle-cycle-flag>
        <start-end-flag>start-end-flag-choice</start-end-flag>
      </ds0-options>
    </interface>
  </interfaces>
</configuration>
```

Description DS-0 interface-specific options.

Contents <byte-encoding>—Byte encoding.

- nx56—7 bits per byte.
- nx64—8 bits per byte.

<fcs>—Frame checksum.

- 16—16-bit mode.
- 32—32-bit mode.

<idle-cycle-flag>—Value to transmit in idle cycles.

- flags—Transmit 0x7E in idle cycles.
- ones—Transmit 0xFF (all ones) in idle cycles.

<invert-data>—Invert data.

<start-end-flag>—Set start/end flags on transmission.

- filler—Send two idle cycles between start/end flags.
- shared—Share start/end flags on transmit.

<ds1> (configuration/chassis/alarm)

Usage

```
<configuration>
  <chassis>
    <alarm>
      <ds1>
        <ais>ais-choice</ais>
        <ylw>ylw-choice</ylw>
      </ds1>
    </alarm>
  </chassis>
</configuration>
```

Description DS-1 alarms.

Contents <ais>—Alarm indicator signal.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<ylw>—Yellow alarm.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<dscp> (configuration/class-of-service/classifiers)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <dscp>
        <name>name</name>     <!-- identifier -->
        <import>import</import>
        <forwarding-class>...</forwarding-class>
      </dscp>
    </classifiers>
  </class-of-service>
</configuration>
```

Description Differentiated Services (DiffServ) code point (DSCP) classifier.

Contents <forwarding-class>—Define a classification of code point aliases.

<import>—Include this classifier in this definition.

<name>—Classifier name.

<dscp> (configuration / class-of-service / code-point-aliases)

Usage

```
<configuration>
  <class-of-service>
    <code-point-aliases>
      <dscp>
        <name>name</name>     <!-- identifier -->
        <bits>bits</bits>     <!-- mandatory -->
      </dscp>
    </code-point-aliases>
  </class-of-service>
</configuration>
```

Description Differentiated Services (DiffServ) code point (DSCP) aliases.

Contents <bits>—DSCP 6-bit pattern.

<name>—DSCP alias name.

<dscp> (configuration / class-of-service / interfaces / unit / classifiers)

Usage

```
<configuration>
  <class-of-service>
    <interfaces>
      <unit>
        <classifiers>
          <dscp>
            <classifier-name>classifier-name</classifier-name>
          </dscp>
        </classifiers>
      </unit>
    </interfaces>
  </class-of-service>
</configuration>
```

Description DSCP classifier.

Contents <classifier-name>—Name of classifier to be applied.

<dscp> (configuration / class-of-service / interfaces / unit / rewrite-rules)

Usage

```
<configuration>
  <class-of-service>
    <interfaces>
      <unit>
        <rewrite-rules>
          <dscp>
            <rewrite-rule-name>rewrite-rule-name</rewrite-rule-name>
          </dscp>
        </rewrite-rules>
      </unit>
    </interfaces>
  </class-of-service>
</configuration>
```

Description DSCP rewrite rule.

Contents <rewrite-rule-name>—Name of rewrite rule to be applied.

<dscp> (configuration / class-of-service / rewrite-rules)

Usage

```
<configuration>
  <class-of-service>
    <rewrite-rules>
      <dscp>
        <name>name</name>     <!-- identifier -->
        <import>import</import>
        <forwarding-class>...</forwarding-class>
      </dscp>
    </rewrite-rules>
  </class-of-service>
</configuration>
```

Description Differentiated Services (DiffServ) code point (DSCP) rewrite rule.

Contents <forwarding-class>—Markings for named forwarding class.

<import>—Include this rewrite rule in this definition.

<name>—Rewrite rule name.

<dscp> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <dscp>
                <name>name</name>     <!-- identifier -->
              </dscp>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match Differentiated Services (DiffServ) code point.

Contents <name>—No documentation is available yet.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- ef—Expedited forwarding.
- name—Range of values.

<dscp> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <dscp>
            <name>name</name>     <!-- identifier -->
          </dscp>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match Differentiated Services (DiffServ) code point.

Contents <name>—No documentation is available yet.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- ef—Expedited forwarding.
- name—Range of values.

<dscp-except> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <dscp-except>
                <name>name</name>     <!-- identifier -->
              </dscp-except>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Do not match Differentiated Services (DiffServ) code point.

Contents <name>—No documentation is available yet.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- ef—Expedited forwarding.
- name—Range of values.

<dscp-except> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <dscp-except>
            <name>name</name>     <!-- identifier -->
          </dscp-except>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Do not match Differentiated Services (DiffServ) code point.

Contents <name>—No documentation is available yet.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- ef—Expedited forwarding.
- name—Range of values.

<dvmrp> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <dvmrp>
      <disable/>
      <traceoptions>...</traceoptions>
      <rib-group>...</rib-group>
      <import>...</import>
      <export>...</export>
      <interface>...</interface>
    </dvmrp>
  </protocols>
</configuration>
```

Description DVMRP options.

Contents <disable>—Disable DVMRP.

<export>—Export policy.

<import>—Import policy.

<interface>—DVMRP interface options.

<rib-group>—Routing table group.

<traceoptions>—Trace options for DVMRP.

<dynamic> (configuration/security/ipsec/security-association)

Usage

```
<configuration>
  <security>
    <ipsec>
      <security-association>
        <dynamic>
          <replay-window-size>replay-window-size-choice</replay-window-size>
          <ipsec-policy>ipsec-policy</ipsec-policy>
        </dynamic>
      </security-association>
    </ipsec>
  </security>
</configuration>
```

Description Define a dynamic IPSec security association.

Contents <ipsec-policy>—Name of the IPSec policy.

<replay-window-size>—Set replay protection window size.

- 32—32-packet window size.
- 64—64-packet window size.

<e1> (configuration/chassis/fpc/pic/ce1)

Usage

```
<configuration>
  <chassis>
    <fpc>
      <pic>
        <ce1>
          <e1>
            <name>name</name>     <!-- identifier -->
            <channel-group>...</channel-group>
          </e1>
        </ce1>
      </pic>
    </fpc>
  </chassis>
</configuration>
```

Description E1 link.

Contents <channel-group>—Define a channel group.

<name>—E1 link number.

<e1-options> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <e1-options>
        <timeslots>timeslots</timeslots>
        <loopback>loopback-choice</loopback>
        <framing>framing-choice</framing>
        <fcs>fcs-choice</fcs>
        <invert-data/>
        <idle-cycle-flag>idle-cycle-flag-choice</idle-cycle-flag>
        <start-end-flag>start-end-flag-choice</start-end-flag>
        <bert-error-rate>bert-error-rate</bert-error-rate>
        <bert-period>seconds</bert-period>
      </e1-options>
    </interface>
  </interfaces>
</configuration>
```

Description E1 interface-specific options.

Contents <bert-error-rate>—Bit error rate to use in BERT test (10^-n).

<bert-period>—Length of BERT test.

<fcs>—Frame checksum.

- 16—16-bit mode.
- 32—32-bit mode.

<framing>—Framing mode.

- g704—G704 mode with CRC4.
- g704-no-crc4—G704 mode without CRC4.
- unframed—Unframed mode.

<idle-cycle-flag>—Value to transmit in idle cycles.

- flags—Transmit 0x7E in idle cycles.
- ones—Transmit 0xFF (all ones) in idle cycles.

<invert-data>—Invert data.

<loopback>—Loopback mode.

- local—Local loopback.
- remote—Remote loopback.

<start-end-flag>—Set start/end flags on transmission.

- filler—Send two idle cycles between start/end flags.
- shared—Share start/end flags on transmit.

<timeslots>—Timeslots (1..32); for example, 1-4,6,9-11,32 (no space).

<e3> (configuration/chassis/alarm)

Usage

```
<configuration>
  <chassis>
    <alarm>
      <e3>
        <ais>ais-choice</ais>
        <exz>exz-choice</exz>
        <ferf>ferf-choice</ferf>
        <idle>idle-choice</idle>
        <lcv>lcv-choice</lcv>
        <lof>lof-choice</lof>
        <los>los-choice</los>
        <pll>pll-choice</pll>
        <ylw>ylw-choice</ylw>
      </e3>
    </alarm>
  </chassis>
</configuration>
```

Description E3 alarms.

Contents <ais>—Alarm indicator signal.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<exz>—Excessive zeros.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<ferf>—Far-end failure.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<idle>—Idle alarm.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<lcv>—Line code violation.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<lof>—Loss of frame.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<los>—Loss of signal.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<pll>—Phase-locked loop out of lock.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<ylw>—Yellow alarm.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<e3-options> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <e3-options>
        <loopback>loopback-choice</loopback>
        <compatibility-mode>...</compatibility-mode>
        <payload-scrambler/>
        <fcs>fcs-choice</fcs>
        <idle-cycle-flag>idle-cycle-flag-choice</idle-cycle-flag>
        <start-end-flag>start-end-flag-choice</start-end-flag>
        <bert-algorithm>bert-algorithm-choice</bert-algorithm>
        <bert-error-rate>bert-error-rate</bert-error-rate>
        <bert-period>seconds</bert-period>
        <buildout>feet</buildout>
        <atm-encapsulation>atm-encapsulation-choice</atm-encapsulation>
        <framing>framing-choice</framing>
      </e3-options>
    </interface>
  </interfaces>
</configuration>
```

Description E3 interface-specific options.

Contents <atm-encapsulation>—E3 interface encapsulation.

- direct—ATM direct mapping.
- plcp—PLCP encapsulation.

<bert-algorithm>—Set BERT algorithm.

- all-ones-repeating—Repeating one bits.
- all-zeros-repeating—Repeating zero bits.
- alternating-double-ones-zeros—Alternating pairs of ones and zeros.
- alternating-ones-zeros—Alternating ones and zeros.

- pseudo-2e10—Pattern is 2^10 - 1.
- pseudo-2e11-o152—Pattern is 2^11 -1 (per O.152 standard).
- pseudo-2e15-o151—Pattern is 2^15 - 1 (per O.152 standard).
- pseudo-2e17—Pattern is 2^17 - 1.
- pseudo-2e18—Pattern is 2^18 - 1.
- pseudo-2e20-o151—Pattern is 2^20 - 1 (per O.151 standard).
- pseudo-2e20-o153—Pattern is 2^20 - 1 (per O.153 standard).
- pseudo-2e21—Pattern is 2^21 - 1.
- pseudo-2e22—Pattern is 2^22 - 1.
- pseudo-2e23-o151—Pattern is 2^23 (per O.151 standard).
- pseudo-2e25—Pattern is 2^25 - 1.
- pseudo-2e28—Pattern is 2^28 - 1.
- pseudo-2e29—Pattern is 2^29 - 1.
- pseudo-2e3—Pattern is 2^3 - 1.
- pseudo-2e31—Pattern is 2^31 - 1.
- pseudo-2e32—Pattern is 2^32 - 1.
- pseudo-2e4—Pattern is 2^4 - 1.
- pseudo-2e5—Pattern is 2^5 - 1.
- pseudo-2e6—Pattern is 2^6 - 1.
- pseudo-2e7—Pattern is 2^7 - 1.
- pseudo-2e9-o153—Pattern is 2^9 - 1 (per O.153 standard).
- repeating-1-in-4—1 bit in 4 is set.
- repeating-1-in-8—1 bit in 8 is set.
- repeating-3-in-24—3 bits in 24 are set.

<bert-error-rate>—BERT error rate (10^-n).

<bert-period>—Length of BERT test.

<buildout>—Line buildout.

<compatibility-mode>—Set CSU compatibility mode.

<fcs>—Frame checksum.

- 16—16-bit mode.
- 32—32-bit mode.

<framing>—E3 line format.

- g.751—G.751 format.
- g.832—G.832 format.

<idle-cycle-flag>—Value to transmit in idle cycles.

- flags—Transmit 0x7E in idle cycles.
- ones—Transmit 0xFF (all ones) in idle cycles.

<loopback>—Loopback mode.

- local—Local loopback.
- remote—Remote loopback.

<payload-scrambler>—Enable payload scrambling.

<start-end-flag>—Set start/end flags on transmission.

- filler—Send two idle cycles between start/end flags.
- shared—Share start/end flags on transmit.

<egress-policy> (configuration/protocols/ldp)

Usage

```
<configuration>
  <protocols>
    <ldp>
      <egress-policy>
        <name>name</name>     <!-- identifier -->
      </egress-policy>
    </ldp>
  </protocols>
</configuration>
```

Description Configure LSP egress policy.

Contents <name>—Configure LSP egress policy.

<egress-policy> (configuration / routing-instances / instance / protocols / ldp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <egress-policy>
            <name>name</name>     <!-- identifier -->
          </egress-policy>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure LSP egress policy.

Contents <name>—Configure LSP egress policy.

<encryption> (configuration / security / ipsec / security-association / manual / direction)

Usage

```
<configuration>
  <security>
    <ipsec>
      <security-association>
        <manual>
          <direction>
            <encryption>
              <algorithm>algorithm-choice</algorithm>
              <key>…</key>
            </encryption>
          </direction>
        </manual>
      </security-association>
    </ipsec>
  </security>
</configuration>
```

Description Define encryption parameters.

Contents <algorithm>—Define encryption algorithm.

- 3des-cbc—3DES-CBC encryption algorithm.
- des-cbc—DES-CBC encryption algorithm.

<key>—Define an encryption key.

<engine-id> (configuration / snmp)

Usage

```
<configuration>
  <snmp>
    <engine-id>
      <local>local</local>
    </engine-id>
  </snmp>
</configuration>
```

Description SNMPv3 engine ID.

Contents <local>—Local engine ID.

<esp-spi> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <esp-spi>
                <name>name</name>     <!-- identifier -->
              </esp-spi>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match IPSec ESP SPI value.

Contents <name>—Range of values.

<esp-spi> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <esp-spi>
            <name>name</name>     <!-- identifier -->
          </esp-spi>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match IPSec ESP SPI value.

Contents <name>—Range of values.

<esp-spi-except> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <esp-spi-except>
                <name>name</name>     <!-- identifier -->
              </esp-spi-except>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Do not match IPSec ESP SPI value.

Contents <name>—Range of values.

<esp-spi-except> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <esp-spi-except>
            <name>name</name>     <!-- identifier -->
          </esp-spi-except>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Do not match IPSec ESP SPI value.

Contents <name>—Range of values.

<ethernet> (configuration / chassis / aggregated-devices)

Usage

```
<configuration>
  <chassis>
    <aggregated-devices>
      <ethernet>
        <device-count>device-count</device-count>
      </ethernet>
    </aggregated-devices>
  </chassis>
</configuration>
```

Description Aggregated device options for Ethernet.

Contents <device-count>—Number of aggregated Ethernet devices.

<ethernet> (configuration/chassis/alarm)

Usage

```
<configuration>
  <chassis>
    <alarm>
      <ethernet>
        <link-down>link-down-choice</link-down>
      </ethernet>
    </alarm>
  </chassis>
</configuration>
```

Description Ethernet alarms.

Contents <link-down>—Link has gone down.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<event> (configuration/snmp/rmon)

Usage

```
<configuration>
  <snmp>
    <rmon>
      <event>
        <name>name</name>     <!-- identifier -->
        <description>description</description>
        <type>type-choice</type>
        <community>community</community>
      </event>
    </rmon>
  </snmp>
</configuration>
```

Description RMON event entries.

Contents <community>—The community (trap group) for outgoing traps.

<description>—General description of event.

<name>—RMON event identifier.

<type>—The type of notification for this event.

- log—Add entry to logTable.
- log-and-trap—Send SNMP trap and make log entry.
- none—No notifications.
- snmptrap—Send SNMP trap.

<exclude> (configuration/protocols/mpls/admin-group)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <admin-group>
        <exclude>
          <name>name</name>     <!-- identifier -->
        </exclude>
      </admin-group>
    </mpls>
  </protocols>
</configuration>
```

Description Groups to reject.

Contents <name>—Groups to reject.

<exclude> (configuration/protocols/mpls/label-switched-path/admin-group)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <admin-group>
          <exclude>
            <name>name</name>     <!-- identifier -->
          </exclude>
        </admin-group>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Groups to reject.

Contents <name>—Groups to reject.

<exclude> (configuration/protocols/mpls/label-switched-path/fast-reroute)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <fast-reroute>
          <exclude>
            <name>name</name>     <!-- identifier -->
          </exclude>
        </fast-reroute>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Groups to reject.

Contents <name>—Groups to reject.

<exclude> (configuration/protocols/mpls/label-switched-path/primary/admin-group)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <primary>
          <admin-group>
            <exclude>
              <name>name</name>     <!-- identifier -->
            </exclude>
          </admin-group>
        </primary>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Groups to reject.

Contents <name>—Groups to reject.

<exclude> (configuration/protocols/mpls/label-switched-path/secondary/admin-group)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <secondary>
          <admin-group>
            <exclude>
              <name>name</name>     <!-- identifier -->
            </exclude>
          </admin-group>
        </secondary>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Groups to reject.

Contents <name>—Groups to reject.

<exp> (configuration/class-of-service/classifiers)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <exp>
        <name>name</name>     <!-- identifier -->
        <import>import</import>
        <forwarding-class>...</forwarding-class>
      </exp>
    </classifiers>
  </class-of-service>
</configuration>
```

Description MPLS EXP classifier.

Contents <forwarding-class>—Define a classification of code point aliases.

<import>—Include this classifier in this definition.

<name>—Classifier name.

<exp> (configuration/class-of-service/code-point-aliases)

Usage

```
<configuration>
  <class-of-service>
    <code-point-aliases>
      <exp>
        <name>name</name>     <!-- identifier -->
        <bits>bits</bits>     <!-- mandatory -->
      </exp>
    </code-point-aliases>
  </class-of-service>
</configuration>
```

Description MPLS EXP code point aliases.

Contents <bits>—EXP 3-bit pattern.

<name>—EXP alias name.

<exp> (configuration/class-of-service/interfaces/unit/classifiers)

Usage

```
<configuration>
  <class-of-service>
    <interfaces>
      <unit>
        <classifiers>
          <exp>
            <classifier-name>classifier-name</classifier-name>
          </exp>
        </classifiers>
      </unit>
    </interfaces>
  </class-of-service>
</configuration>
```

Description EXP classifier.

Contents <classifier-name>—Name of classifier to be applied.

<exp> (configuration / class-of-service / interfaces / unit / rewrite-rules)

Usage

```
<configuration>
  <class-of-service>
    <interfaces>
      <unit>
        <rewrite-rules>
          <exp>
            <name>name</name>     <!-- identifier -->
            <protocol>...</protocol>
          </exp>
        </rewrite-rules>
      </unit>
    </interfaces>
  </class-of-service>
</configuration>
```

Description EXP rewrite rule.

Contents <name>—Name of rewrite rule to be applied.

<protocol>—Specify protocol matching criteria.

<exp> (configuration / class-of-service / rewrite-rules)

Usage

```
<configuration>
  <class-of-service>
    <rewrite-rules>
      <exp>
        <name>name</name>     <!-- identifier -->
        <import>import</import>
        <forwarding-class>...</forwarding-class>
      </exp>
    </rewrite-rules>
  </class-of-service>
</configuration>
```

Description MPLS EXP rewrite rule.

Contents <forwarding-class>—Markings for named forwarding class.

<import>—Include this rewrite rule in this definition.

<name>—Rewrite rule name.

<exp> (configuration / firewall / family / mpls / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <mpls>
        <filter>
          <term>
            <from>
              <exp>
                <name>name</name>     <!-- identifier -->
              </exp>
            </from>
          </term>
        </filter>
      </mpls>
    </family>
  </firewall>
</configuration>
```

Description Match MPLS EXP bits.

Contents <name>—Range of values.

<exp-except> (configuration / firewall / family / mpls / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <mpls>
        <filter>
          <term>
            <from>
              <exp-except>
                <name>name</name>     <!-- identifier -->
              </exp-except>
            </from>
          </term>
        </filter>
      </mpls>
    </family>
  </firewall>
</configuration>
```

Description Do not match MPLS EXP bits.

Contents <name>—Range of values.

<export> (configuration/protocols/bgp)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <export>
        <name>name</name>     <!-- identifier -->
      </export>
    </bgp>
  </protocols>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration/protocols/bgp/group)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <export>
          <name>name</name>     <!-- identifier -->
        </export>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration/protocols/bgp/group/neighbor)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <export>
            <name>name</name>     <!-- identifier -->
          </export>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration/protocols/dvmrp)

Usage

```
<configuration>
  <protocols>
    <dvmrp>
      <export>
        <name>name</name>     <!-- identifier -->
      </export>
    </dvmrp>
  </protocols>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration/protocols/isis)

Usage

```
<configuration>
  <protocols>
    <isis>
      <export>
        <name>name</name>     <!-- identifier -->
      </export>
    </isis>
  </protocols>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration/protocols/ldp)

Usage

```
<configuration>
  <protocols>
    <ldp>
      <export>
        <name>name</name>     <!-- identifier -->
      </export>
    </ldp>
  </protocols>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration/protocols/msdp)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <export>
        <name>name</name>     <!-- identifier -->
      </export>
    </msdp>
  </protocols>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration/protocols/msdp/group)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <group>
        <export>
          <name>name</name>     <!-- identifier -->
        </export>
      </group>
    </msdp>
  </protocols>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration/protocols/msdp/group/peer)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <group>
        <peer>
          <export>
            <name>name</name>     <!-- identifier -->
          </export>
        </peer>
      </group>
    </msdp>
  </protocols>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration/protocols/msdp/peer)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <peer>
        <export>
          <name>name</name>     <!-- identifier -->
        </export>
      </peer>
    </msdp>
  </protocols>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration/protocols/ospf)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <export>
        <name>name</name>     <!-- identifier -->
      </export>
    </ospf>
  </protocols>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration/protocols/ospf3)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <export>
        <name>name</name>     <!-- identifier -->
      </export>
    </ospf3>
  </protocols>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration/protocols/rip/group)

Usage

```
<configuration>
  <protocols>
    <rip>
      <group>
        <export>
          <name>name</name>     <!-- identifier -->
        </export>
      </group>
    </rip>
  </protocols>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration/protocols/ripng/group)

Usage

```
<configuration>
  <protocols>
    <ripng>
      <group>
        <export>
          <name>name</name>     <!-- identifier -->
        </export>
      </group>
    </ripng>
  </protocols>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration/routing-instances/instance/protocols/bgp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <export>
            <name>name</name>     <!-- identifier -->
          </export>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration / routing-instances / instance / protocols / bgp / group)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <export>
              <name>name</name>     <!-- identifier -->
            </export>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration / routing-instances / instance / protocols / bgp / group / neighbor)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <export>
                <name>name</name>     <!-- identifier -->
              </export>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration / routing-instances / instance / protocols / isis)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <isis>
          <export>
            <name>name</name>     <!-- identifier -->
          </export>
        </isis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration / routing-instances / instance / protocols / ldp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <export>
            <name>name</name>     <!-- identifier -->
          </export>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration / routing-instances / instance / protocols / ospf)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <export>
            <name>name</name>     <!-- identifier -->
          </export>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration / routing-instances / instance / protocols / rip / group)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <group>
            <export>
              <name>name</name>     <!-- identifier -->
            </export>
          </group>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration / routing-instances / instance / routing-options / forwarding-table)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <forwarding-table>
          <export>
            <name>name</name>     <!-- identifier -->
          </export>
        </forwarding-table>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<export> (configuration / routing-options / forwarding-table)

Usage

```
<configuration>
  <routing-options>
    <forwarding-table>
      <export>
        <name>name</name>     <!-- identifier -->
      </export>
    </forwarding-table>
  </routing-options>
</configuration>
```

Description Export policy.

Contents <name>—Export policy.

<external> (configuration / policy-options / policy-statement / from)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <external>
          <type>type</type>
        </external>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description External route.

Contents <type>—OSPF external metric type.

<external> (configuration / policy-options / policy-statement / from / route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <external>
            <type>type</type>     <!-- mandatory -->
          </external>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description External route.

Contents <type>—OSPF external metric type.

<external> (configuration / policy-options / policy-statement / from / source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <external>
            <type>type</type>     <!-- mandatory -->
          </external>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description External route.

Contents <type>—OSPF external metric type.

<external> (configuration / policy-options / policy-statement / term / from)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <external>
            <type>type</type>
          </external>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description External route.

Contents <type>—OSPF external metric type.

<external> (configuration / policy-options / policy-statement / term / from / route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <external>
              <type>type</type>     <!-- mandatory -->
            </external>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description External route.

Contents <type>—OSPF external metric type.

<external> (configuration/policy-options/policy-statement/term/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <external>
              <type>type</type>     <!-- mandatory -->
            </external>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description External route.

Contents <type>—OSPF external metric type.

<external> (configuration/policy-options/policy-statement/term/then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <external>
            <type>type</type>     <!-- mandatory -->
          </external>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description External route.

Contents <type>—OSPF external metric type.

<external> (configuration / policy-options / policy-statement / term / to)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <to>
          <external>
            <type>type</type>
          </external>
        </to>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description External route.

Contents <type>—OSPF external metric type.

<external> (configuration / policy-options / policy-statement / then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <then>
        <external>
          <type>type</type>     <!-- mandatory -->
        </external>
      </then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description External route.

Contents <type>—OSPF external metric type.

<external> (configuration / policy-options / policy-statement / to)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <to>
        <external>
          <type>type</type>
        </external>
      </to>
    </policy-statement>
  </policy-options>
</configuration>
```

Description External route.

Contents <type>—OSPF external metric type.

<fabric> (configuration/class-of-service)

Usage

```
<configuration>
  <class-of-service>
    <fabric>
      <scheduler-map>...</scheduler-map>
    </fabric>
  </class-of-service>
</configuration>
```

Description Define CoS parameters of switch fabric.

Contents <scheduler-map>—Mapping of fabric traffic to packet schedulers.

<failover> (configuration/chassis/redundancy)

Usage

```
<configuration>
  <chassis>
    <redundancy>
      <failover>
        <on-loss-of-keepalives/>
      </failover>
    </redundancy>
  </chassis>
</configuration>
```

Description Failover to other Routing Engine.

Contents <on-loss-of-keepalives>—Failover on loss of keepalives.

<family> (configuration/firewall)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>...</inet>
      <inet6>...</inet6>
      <mpls>...</mpls>
    </family>
  </firewall>
</configuration>
```

Description Protocol family.

Contents <inet>—Protocol family IPv4 for firewall filter.

<inet6>—Protocol family IPv6 for firewall filter.

<mpls>—Protocol family MPLS for firewall filter.

<family> (configuration / forwarding-options)

Usage

```
<configuration>
  <forwarding-options>
    <family>
      <inet>...</inet>
      <inet6>...</inet6>
      <mpls>...</mpls>
    </family>
  </forwarding-options>
</configuration>
```

Description Protocol family.

Contents <inet>—IPv4 parameters.

<inet6>—IPv6 parameters.

<mpls>—MPLS parameters.

<family> (configuration / forwarding-options / hash-key)

Usage

```
<configuration>
  <forwarding-options>
    <hash-key>
      <family>
        <inet>...</inet>
        <mpls>...</mpls>
      </family>
    </hash-key>
  </forwarding-options>
</configuration>
```

Description Protocol family.

Contents <inet>—IPv4 protocol family.

<mpls>—MPLS protocol family.

<family> (configuration / forwarding-options / monitoring)

Usage

```
<configuration>
  <forwarding-options>
    <monitoring>
      <family>
        <inet>...</inet>
      </family>
    </monitoring>
  </forwarding-options>
</configuration>
```

Description Address family of packets to monitor.

Contents <inet>—Monitor IPv4 packets.

<family> (configuration / forwarding-options / sampling / input)

Usage

```
<configuration>
  <forwarding-options>
    <sampling>
      <input>
        <family>
          <inet>...</inet>
        </family>
      </input>
    </sampling>
  </forwarding-options>
</configuration>
```

Description Protocol family.

Contents <inet>—Sampling parameters for IPv4.

<family> (configuration / interfaces / interface / unit)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>...</inet>
          <iso>...</iso>
          <inet6>...</inet6>
          <mpls>...</mpls>
          <mlppp>...</mlppp>
          <mlfr>...</mlfr>
          <mfr-frf16>...</mfr-frf16>
          <ccc>...</ccc>
          <tcc>...</tcc>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Protocol family.

Contents <ccc>—Circuit cross-connect parameters.

<inet>—IPv4 parameters.

<inet6>—IPv6 protocol parameters.

<iso>—OSI ISO protocol parameters.

<mfr-frf16>—Multilink Frame Relay UNI/NNI protocol parameters.

<mlfr>—Multilink Frame Relay end-to-end protocol parameters.

<mlppp>—Multilink PPP protocol parameters.

<mpls>—MPLS protocol parameters.

<tcc>—Translational cross-connect parameters.

<family> (configuration/protocols/bgp)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>...</inet>
        <inet-vpn>...</inet-vpn>
        <inet6>...</inet6>
        <l2vpn>...</l2vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Protocol family for NLRIs in updates.

Contents <inet>—IPv4 NLRI parameters.

<inet-vpn>—IPv4 Layer 3 VPN NLRI parameters.

<inet6>—IPv6 NLRI parameters.

<l2vpn>—MPLS-based Layer 2 VPN (L2VPN) NLRI parameters.

<family> (configuration/protocols/bgp/group)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>...</inet>
          <inet-vpn>...</inet-vpn>
          <inet6>...</inet6>
          <l2vpn>...</l2vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Protocol family for NLRIs in updates.

Contents <inet>—IPv4 NLRI parameters.

<inet-vpn>—IPv4 Layer 3 VPN NLRI parameters.

<inet6>—IPv6 NLRI parameters.

<l2vpn>—MPLS-based Layer 2 VPN (L2VPN) NLRI parameters.

<family> (configuration/protocols/bgp/group/neighbor)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>...</inet>
            <inet-vpn>...</inet-vpn>
            <inet6>...</inet6>
            <l2vpn>...</l2vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Protocol family for NLRIs in updates.

Contents <inet>—IPv4 NLRI parameters.

<inet-vpn>—IPv4 Layer 3 VPN NLRI parameters.

<inet6>—IPv6 NLRI parameters.

<l2vpn>—MPLS-based Layer 2 VPN (L2VPN) NLRI parameters.

<family> (configuration/protocols/pim/rp/local)

Usage

```
<configuration>
  <protocols>
    <pim>
      <rp>
        <local>
          <family>
            <inet>...</inet>
            <inet6>...</inet6>
          </family>
        </local>
      </rp>
    </pim>
  </protocols>
</configuration>
```

Description Local RP address family.

Contents <inet>—IPv4 local RP properties.

<inet6>—IPv6 local RP properties.

<family> (configuration/routing-instances/instance/protocols/bgp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>...</inet>
            <inet-vpn>...</inet-vpn>
            <inet6>...</inet6>
            <l2vpn>...</l2vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Protocol family for NLRIs in updates.

Contents <inet>—IPv4 NLRI parameters.

<inet-vpn>—IPv4 Layer 3 VPN NLRI parameters.

<inet6>—IPv6 NLRI parameters.

<l2vpn>—MPLS-based Layer 2 VPN (L2VPN) NLRI parameters.

<family> (configuration/routing-instances/instance/protocols/bgp/group)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>...</inet>
              <inet-vpn>...</inet-vpn>
              <inet6>...</inet6>
              <l2vpn>...</l2vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Protocol family for NLRIs in updates.

Contents <inet>—IPv4 NLRI parameters.

<inet-vpn>—IPv4 Layer 3 VPN NLRI parameters.

<inet6>—IPv6 NLRI parameters.

<l2vpn>—MPLS-based Layer 2 VPN (L2VPN) NLRI parameters.

<family> (configuration/routing-instances/instance/protocols/bgp/group/neighbor)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>...</inet>
                <inet-vpn>...</inet-vpn>
                <inet6>...</inet6>
                <l2vpn>...</l2vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Protocol family for NLRIs in updates.

Contents <inet>—IPv4 NLRI parameters.

<inet-vpn>—IPv4 Layer 3 VPN NLRI parameters.

<inet6>—IPv6 NLRI parameters.

<l2vpn>—MPLS-based Layer 2 VPN (L2VPN) NLRI parameters.

<family> (configuration/routing-instances/instance/protocols/pim/rp/local)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <rp>
            <local>
              <family>
                <inet>...</inet>
                <inet6>...</inet6>
              </family>
            </local>
          </rp>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Local RP address family.

Contents <inet>—IPv4 local RP properties.

<inet6>—IPv6 local RP properties.

<family> (configuration/routing-instances/instance/routing-options/auto-export)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <auto-export>
          <family>
            <inet>...</inet>
          </family>
        </auto-export>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description No documentation is available yet.

Contents <inet>—IPv4 parameters.

<family> (configuration/routing-instances/instance/routing-options/interface-routes)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <interface-routes>
               <family>
                  <name>name</name>     <!-- identifier -->
                  <import>...</import>
               </family>
            </interface-routes>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Address family.

Contents <import>—Import policy.

<name>—No documentation is available yet.

- inet—IPv4 family.
- inet6—IPv6 family.

<family> (configuration/routing-options/auto-export)

Usage

```
<configuration>
   <routing-options>
      <auto-export>
         <family>
            <inet>...</inet>
         </family>
      </auto-export>
   </routing-options>
</configuration>
```

Description No documentation is available yet.

Contents <inet>—IPv4 parameters.

<family> (configuration/routing-options/interface-routes)

Usage

```
<configuration>
  <routing-options>
    <interface-routes>
      <family>
        <name>name</name>     <!-- identifier -->
        <import>...</import>
      </family>
    </interface-routes>
  </routing-options>
</configuration>
```

Description Address family.

Contents <import>—Import policy.

<name>—No documentation is available yet.

- inet—IPv4 family.
- inet6—IPv6 family.

<fast-reroute> (configuration/protocols/mpls/label-switched-path)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <fast-reroute>
          <hop-limit>hop-limit</hop-limit>
          <bandwidth>bandwidth</bandwidth>
          <no-include/>
          <include>...</include>
          <no-exclude/>
          <exclude>...</exclude>
        </fast-reroute>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Fast reroute.

Contents <bandwidth>—Bandwidth to reserve (bps).

<exclude>—Groups to reject.

<hop-limit>—Maximum allowed router hops.

<include>—Groups to require.

<no-exclude>—Disable exclude checking.

<no-include>—Disable include checking.

<fastether-options> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <fastether-options>
        <loopback/>
        <flow-control/>
        <source-filtering/>
        <ingress-rate-limit>megabits per second</ingress-rate-limit>
        <source-address-filter>...</source-address-filter>
        <ieee-802.3ad>ieee-802.3ad</ieee-802.3ad>
      </fastether-options>
    </interface>
  </interfaces>
</configuration>
```

Description Fast Ethernet interface-specific options.

Contents <flow-control>—Enable flow control.

<ieee-802.3ad>—Join an aggregated Ethernet interface.

<ingress-rate-limit>—Ingress rate at the port.

<loopback>—Enable loopback.

<source-address-filter>—Source address filters.

<source-filtering>—Enable source address filtering.

<fate-sharing> (configuration/routing-instances/instance/routing-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <fate-sharing>
          <group>...</group>
        </fate-sharing>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Fate-sharing links or nodes database.

Contents <group>—Group of objects sharing common characteristics.

<fate-sharing> (configuration/routing-options)

Usage

```
<configuration>
  <routing-options>
    <fate-sharing>
      <group>...</group>
    </fate-sharing>
  </routing-options>
</configuration>
```

Description Fate-sharing links or nodes database.

Contents <group>—Group of objects sharing common characteristics.

<fields> (configuration/accounting-options/interface-profile)

Usage

```
<configuration>
  <accounting-options>
    <interface-profile>
      <fields>
        <input-bytes/>
        <output-bytes/>
        <input-packets/>
        <output-packets/>
        <input-errors/>
        <output-errors/>
        <input-multicast/>
        <output-multicast/>
        <input-unicast/>
        <output-unicast/>
        <unsupported-protocol/>
        <rpf-check-bytes/>
        <rpf-check-packets/>
        <rpf-check6-bytes/>
        <rpf-check6-packets/>
      </fields>
    </interface-profile>
  </accounting-options>
</configuration>
```

Description Statistics to log to file.

Contents <input-bytes>—Input bytes.

<input-errors>—Generic input error packets.

<input-multicast>—Input packets arriving by multicast.

<input-packets>—Input packets.

<input-unicast>—Input unicast packets.

<output-bytes>—Output bytes.

<output-errors>—Generic output error packets.

<output-multicast>—Output packets sent by multicast.

<output-packets>—Output packets.

<output-unicast>—Output unicast packets.

<rpf-check-bytes>—Bytes failing IPv4 reverse-path-forwarding check.

<rpf-check-packets>—Packets failing IPv4 reverse-path-forwarding check.

<rpf-check6-bytes>—Bytes failing IPv6 reverse-path-forwarding check.

<rpf-check6-packets>—Packets failing IPv6 reverse-path-forwarding check.

<unsupported-protocol>—Packets for unsupported protocol.

<fields> (configuration/accounting-options/routing-engine-profile)

Usage

```
<configuration>
  <accounting-options>
    <routing-engine-profile>
      <fields>
        <host-name/>
        <date/>
        <time-of-day/>
        <uptime/>
        <cpu-load-1/>
        <cpu-load-5/>
        <cpu-load-15/>
      </fields>
    </routing-engine-profile>
  </accounting-options>
</configuration>
```

Description Information to log to file.

Contents <cpu-load-1>—Average system load over last 1 minute.

<cpu-load-15>—Average system load over last 15 minutes.

<cpu-load-5>—Average system load over last 5 minutes.

<date>—Date.

<host-name>—Host name for this router.

<time-of-day>—Time of day.

<uptime>—Time since last reboot.

<file> (configuration/accounting-options)

Usage

```
<configuration>
  <accounting-options>
    <file>
      <name>name</name>     <!-- identifier -->
      <size>size</size>
      <files>files</files>
      <transfer-interval>minutes</transfer-interval>
      <archive-sites>...</archive-sites>
    </file>
  </accounting-options>
</configuration>
```

Description Accounting data file configuration.

Contents <archive-sites>—No documentation is available yet.

<files>—Maximum number of files for this profile.

<name>—Name of file in which to write accounting data.

<size>—Maximum accounting data file size.

<transfer-interval>—Frequency at which to transfer files to archive sites.

<file> (configuration/forwarding-options/helpers/traceoptions)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <traceoptions>
        <file>
          <size>size</size>
          <files>files</files>
        </file>
      </traceoptions>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Trace file options.

Contents <files>—Maximum number of trace files.

<size>—Maximum trace file size, in kilobytes.

<file> (configuration/forwarding-options/sampling/output)

Usage

```
<configuration>
  <forwarding-options>
    <sampling>
      <output>
        <file>
          <disable/>
          <filename>filename</filename>     <!-- mandatory -->
          <files>files</files>
          <size>size</size>
          <world-readable/>
          <stamp/>
        </file>
      </output>
    </sampling>
  </forwarding-options>
</configuration>
```

Description Configure parameters for dumping sampled packets.

Contents <disable>—Disable sampled packet dumps.

<filename>—Name of file to contain sampled packet dumps.

<files>—Maximum number of sampled packet dump files.

<size>—Maximum sample dump file size.

<stamp>—Timestamp every packet in the dump.

<world-readable>—Allow any user to read the sampled dump.

<file> (configuration/forwarding-options/sampling/traceoptions)

Usage

```
<configuration>
  <forwarding-options>
    <sampling>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </sampling>
  </forwarding-options>
</configuration>
```

Description Trace file information.

Contents <filename>—Filename to hold trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/interfaces/traceoptions)

Usage

```
<configuration>
  <interfaces>
    <traceoptions>
      <file>
        <filename>filename</filename>     <!-- mandatory -->
        <size>size</size>
        <files>files</files>
        <world-readable/>
      </file>
    </traceoptions>
  </interfaces>
</configuration>
```

Description Trace file information.

Contents <filename>—Filename to hold trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/bgp/group/neighbor/traceoptions)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <replace/>
              <size>size</size>
              <files>files</files>
              <no-stamp/>
              <world-readable/>
            </file>
          </traceoptions>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/bgp/group/traceoptions)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <replace/>
            <size>size</size>
            <files>files</files>
            <no-stamp/>
            <world-readable/>
          </file>
        </traceoptions>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/bgp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </bgp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/dvmrp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <dvmrp>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </dvmrp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/igmp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <igmp>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </igmp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/isis/traceoptions)

Usage

```
<configuration>
  <protocols>
    <isis>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </isis>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/l2circuit/traceoptions)

Usage

```
<configuration>
  <protocols>
    <l2circuit>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </l2circuit>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/ldp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ldp>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </ldp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/ldp/traffic-statistics)

Usage

```
<configuration>
  <protocols>
    <ldp>
      <traffic-statistics>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traffic-statistics>
    </ldp>
  </protocols>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/link-management/traceoptions)

Usage

```
<configuration>
  <protocols>
    <link-management>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </link-management>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/mld/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mld>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </mld>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/mpls/label-switched-path/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <replace/>
            <size>size</size>
            <files>files</files>
            <no-stamp/>
            <world-readable/>
          </file>
        </traceoptions>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/mpls/statistics)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <statistics>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </statistics>
    </mpls>
  </protocols>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/mpls/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </mpls>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/msdp/group/peer/traceoptions)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <group>
        <peer>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <replace/>
              <size>size</size>
              <files>files</files>
              <no-stamp/>
              <world-readable/>
            </file>
          </traceoptions>
        </peer>
      </group>
    </msdp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/msdp/group/traceoptions)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <group>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <replace/>
            <size>size</size>
            <files>files</files>
            <no-stamp/>
            <world-readable/>
          </file>
        </traceoptions>
      </group>
    </msdp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/msdp/peer/traceoptions)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <peer>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <replace/>
            <size>size</size>
            <files>files</files>
            <no-stamp/>
            <world-readable/>
          </file>
        </traceoptions>
      </peer>
    </msdp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/msdp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </msdp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/ospf/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </ospf>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/ospf3/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </ospf3>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/pim/traceoptions)

Usage

```
<configuration>
  <protocols>
    <pim>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </pim>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/rip/traceoptions)

Usage

```
<configuration>
  <protocols>
    <rip>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </rip>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/ripng/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ripng>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </ripng>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/router-advertisement/traceoptions)

Usage

```
<configuration>
  <protocols>
    <router-advertisement>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </router-advertisement>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/router-discovery/traceoptions)

Usage

```
<configuration>
  <protocols>
    <router-discovery>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </router-discovery>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/rsvp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <rsvp>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </rsvp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/vrrp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <vrrp>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </vrrp>
  </protocols>
</configuration>
```

Description Trace file information.

Contents <filename>—Filename to hold trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <traceoptions>
                <file>
                  <filename>filename</filename>     <!-- mandatory -->
                  <replace/>
                  <size>size</size>
                  <files>files</files>
                  <no-stamp/>
                  <world-readable/>
                </file>
              </traceoptions>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/bgp/group/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <replace/>
                <size>size</size>
                <files>files</files>
                <no-stamp/>
                <world-readable/>
              </file>
            </traceoptions>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/bgp/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <replace/>
              <size>size</size>
              <files>files</files>
              <no-stamp/>
              <world-readable/>
            </file>
          </traceoptions>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/isis/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <isis>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <replace/>
              <size>size</size>
              <files>files</files>
              <no-stamp/>
              <world-readable/>
            </file>
          </traceoptions>
        </isis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/l2vpn/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <l2vpn>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <replace/>
              <size>size</size>
              <files>files</files>
              <no-stamp/>
              <world-readable/>
            </file>
          </traceoptions>
        </l2vpn>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration / routing-instances / instance / protocols / ldp / traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <replace/>
              <size>size</size>
              <files>files</files>
              <no-stamp/>
              <world-readable/>
            </file>
          </traceoptions>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/ldp/traffic-statistics)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <protocols>
            <ldp>
               <traffic-statistics>
                  <file>
                     <filename>filename</filename>     <!-- mandatory -->
                     <replace/>
                     <size>size</size>
                     <files>files</files>
                     <no-stamp/>
                     <world-readable/>
                  </file>
               </traffic-statistics>
            </ldp>
         </protocols>
      </instance>
   </routing-instances>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/ospf/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <replace/>
              <size>size</size>
              <files>files</files>
              <no-stamp/>
              <world-readable/>
            </file>
          </traceoptions>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/pim/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <replace/>
              <size>size</size>
              <files>files</files>
              <no-stamp/>
              <world-readable/>
            </file>
          </traceoptions>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/rip/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <replace/>
              <size>size</size>
              <files>files</files>
              <no-stamp/>
              <world-readable/>
            </file>
          </traceoptions>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/router-discovery/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <router-discovery>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <replace/>
              <size>size</size>
              <files>files</files>
              <no-stamp/>
              <world-readable/>
            </file>
          </traceoptions>
        </router-discovery>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/routing-options/auto-export/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <auto-export>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <replace/>
              <size>size</size>
              <files>files</files>
              <no-stamp/>
              <world-readable/>
            </file>
          </traceoptions>
        </auto-export>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/routing-options/resolution/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <resolution>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <replace/>
              <size>size</size>
              <files>files</files>
              <no-stamp/>
              <world-readable/>
            </file>
          </traceoptions>
        </resolution>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/routing-options/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <replace/>
            <size>size</size>
            <files>files</files>
            <no-stamp/>
            <world-readable/>
          </file>
        </traceoptions>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-options/auto-export/traceoptions)

Usage

```
<configuration>
  <routing-options>
    <auto-export>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </auto-export>
  </routing-options>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-options/resolution/traceoptions)

Usage

```
<configuration>
  <routing-options>
    <resolution>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <replace/>
          <size>size</size>
          <files>files</files>
          <no-stamp/>
          <world-readable/>
        </file>
      </traceoptions>
    </resolution>
  </routing-options>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration / routing-options / traceoptions)

Usage

```
<configuration>
  <routing-options>
    <traceoptions>
      <file>
        <filename>filename</filename>     <!-- mandatory -->
        <replace/>
        <size>size</size>
        <files>files</files>
        <no-stamp/>
        <world-readable/>
      </file>
    </traceoptions>
  </routing-options>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<no-stamp>—Do not timestamp trace file.

<replace>—Replace trace file rather than appending to it.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration / security / traceoptions)

Usage

```
<configuration>
  <security>
    <traceoptions>
      <file>
        <size>bytes</size>
        <files>files</files>
      </file>
    </traceoptions>
  </security>
</configuration>
```

Description Trace file options.

Contents <files>—Maximum number of trace files.

<size>—Maximum trace file size.

<file> (configuration/snmp/traceoptions)

Usage

```
<configuration>
  <snmp>
    <traceoptions>
      <file>
        <size>bytes</size>
        <files>files</files>
      </file>
    </traceoptions>
  </snmp>
</configuration>
```

Description Trace file options.

Contents <files>—Maximum number of trace files.

<size>—Maximum trace file size.

<file> (configuration/system/syslog)

Usage

```
<configuration>
  <system>
    <syslog>
      <file>
        <name>name</name>     <!-- identifier -->
        <contents>...</contents>
        <archive>...</archive>
      </file>
    </syslog>
  </system>
</configuration>
```

Description File in which to log data.

Contents <archive>—Archive file information.

<contents>—No documentation is available yet.

<name>—Name of file in which to log data.

<fill-level> (configuration / class-of-service / drop-profiles)

Usage

```
<configuration>
  <class-of-service>
    <drop-profiles>
      <fill-level>
        <name>name</name>     <!-- identifier -->
        <drop-probability>drop-probability</drop-probability>     <!-- mandatory -->
      </fill-level>
    </drop-profiles>
  </class-of-service>
</configuration>
```

Description Fill-level value of data point.

Contents <drop-probability>—Probability packet will be dropped.

<name>—Percentage the queue is full.

<fill-level> (configuration / class-of-service / drop-profiles / interpolate)

Usage

```
<configuration>
  <class-of-service>
    <drop-profiles>
      <interpolate>
        <fill-level>
          <name>name</name>     <!-- identifier -->
        </fill-level>
      </interpolate>
    </drop-profiles>
  </class-of-service>
</configuration>
```

Description Data points for queue full percentage.

Contents <name>—Data points for queue full percentage.

<filter> (configuration/firewall)

Usage

```
<configuration>
  <firewall>
    <filter>
      <name>name</name>     <!-- identifier -->
      <accounting-profile>...</accounting-profile>
      <interface-specific/>
      <term>...</term>
    </filter>
  </firewall>
</configuration>
```

Description Define an IPv4 firewall filter.

Contents <accounting-profile>—Accounting profile name.

<interface-specific>—Any counters defined will be interface specific.

<name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/firewall/family/inet)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <name>name</name>     <!-- identifier -->
          <accounting-profile>...</accounting-profile>
          <interface-specific/>
          <term>...</term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description No documentation is available yet.

Contents <accounting-profile>—Accounting profile name.

<interface-specific>—Any counters defined will be interface specific.

<name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/firewall/family/inet6)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <name>name</name>     <!-- identifier -->
          <accounting-profile>...</accounting-profile>
          <interface-specific/>
          <term>...</term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description No documentation is available yet.

Contents <accounting-profile>—Accounting profile name.

<interface-specific>—Any counters defined will be interface specific.

<name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/firewall/family/mpls)

Usage

```
<configuration>
  <firewall>
    <family>
      <mpls>
        <filter>
          <name>name</name>     <!-- identifier -->
          <accounting-profile>...</accounting-profile>
          <interface-specific/>
          <term>...</term>
        </filter>
      </mpls>
    </family>
  </firewall>
</configuration>
```

Description No documentation is available yet.

Contents <accounting-profile>—Accounting profile name.

<interface-specific>—Any counters defined will be interface specific.

<name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/forwarding-options/family/inet)

Usage

```
<configuration>
  <forwarding-options>
    <family>
      <inet>
        <filter>
          <input>input</input>
        </filter>
      </inet>
    </family>
  </forwarding-options>
</configuration>
```

Description Filtering for forwarding table.

Contents <input>—Name of filter to apply for forwarded packets.

<filter> (configuration/forwarding-options/family/inet6)

Usage

```
<configuration>
  <forwarding-options>
    <family>
      <inet6>
        <filter>
          <input>input</input>
        </filter>
      </inet6>
    </family>
  </forwarding-options>
</configuration>
```

Description Filtering for forwarding table.

Contents <input>—Name of filter to apply for forwarded packets.

<filter> (configuration/forwarding-options/family/mpls)

Usage

```
<configuration>
  <forwarding-options>
    <family>
      <mpls>
        <filter>
          <input>input</input>
        </filter>
      </mpls>
    </family>
  </forwarding-options>
</configuration>
```

Description Filtering for forwarding table.

Contents <input>—Name of filter to apply for forwarded packets.

<filter> (configuration/interfaces/interface/unit/family/inet)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <filter>
              <input>input</input>
              <output>output</output>
              <group>group</group>
            </filter>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Packet filtering.

Contents <group>—Group of which this interface is a member.

<input>—Name of filter applied to received packets.

<output>—Name of filter applied to transmitted packets.

<filter> (configuration/interfaces/interface/unit/family/inet6)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet6>
            <filter>
              <input>input</input>
              <output>output</output>
              <group>group</group>
            </filter>
          </inet6>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Packet filtering.

Contents <group>—Group of which this interface is a member.

<input>—Name of filter applied to received packets.

<output>—Name of filter applied to transmitted packets.

<filter> (configuration/interfaces/interface/unit/family/mpls)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <mpls>
            <filter>
              <input>input</input>
              <output>output</output>
              <group>group</group>
            </filter>
          </mpls>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Packet filtering.

Contents <group>—Interface group of which this interface is a member.

<input>—Name of filter applied to received packets.

<output>—Name of filter applied to transmitted packets.

<filter> (configuration/protocols/bgp/group/neighbor/traceoptions/flag)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <traceoptions>
            <flag>
              <filter>
                <match-on>match-on-choice</match-on>     <!-- mandatory -->
                <policy>…</policy>     <!-- mandatory -->
              </filter>
            </flag>
          </traceoptions>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/protocols/bgp/group/traceoptions/flag)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <traceoptions>
          <flag>
            <filter>
              <match-on>match-on-choice</match-on>     <!-- mandatory -->
              <policy>...</policy>     <!-- mandatory -->
            </filter>
          </flag>
        </traceoptions>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/protocols/bgp/traceoptions/flag)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <traceoptions>
        <flag>
          <filter>
            <match-on>match-on-choice</match-on>     <!-- mandatory -->
            <policy>...</policy>     <!-- mandatory -->
          </filter>
        </flag>
      </traceoptions>
    </bgp>
  </protocols>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/protocols/rip/traceoptions/flag)

Usage

```
<configuration>
  <protocols>
    <rip>
      <traceoptions>
        <flag>
          <filter>
            <match-on>match-on-choice</match-on>     <!-- mandatory -->
            <policy>...</policy>     <!-- mandatory -->
          </filter>
        </flag>
      </traceoptions>
    </rip>
  </protocols>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/traceoptions/flag)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <traceoptions>
                <flag>
                  <filter>
                    <match-on>match-on-choice</match-on>     <!-- mandatory -->
                    <policy>...</policy>     <!-- mandatory -->
                  </filter>
                </flag>
              </traceoptions>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/routing-instances/instance/protocols/bgp/group/traceoptions/flag)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <protocols>
            <bgp>
               <group>
                  <traceoptions>
                     <flag>
                        <filter>
                           <match-on>match-on-choice</match-on>     <!-- mandatory -->
                           <policy>...</policy>     <!-- mandatory -->
                        </filter>
                     </flag>
                  </traceoptions>
               </group>
            </bgp>
         </protocols>
      </instance>
   </routing-instances>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/routing-instances/instance/protocols/bgp/traceoptions/flag)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <traceoptions>
            <flag>
              <filter>
                <match-on>match-on-choice</match-on>     <!-- mandatory -->
                <policy>...</policy>     <!-- mandatory -->
              </filter>
            </flag>
          </traceoptions>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/routing-instances/instance/protocols/rip/traceoptions/flag)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <traceoptions>
            <flag>
              <filter>
                <match-on>match-on-choice</match-on>     <!-- mandatory -->
                <policy>...</policy>     <!-- mandatory -->
              </filter>
            </flag>
          </traceoptions>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter-profile> (configuration/accounting-options)

Usage

```
<configuration>
  <accounting-options>
    <filter-profile>
      <name>name</name>     <!-- identifier -->
      <file>file</file>
      <interval>minutes</interval>
      <counters>...</counters>     <!-- mandatory -->
    </filter-profile>
  </accounting-options>
</configuration>
```

Description Filter profile for accounting data.

Contents <counters>—Name of counter.

<file>—Name of file for accounting data.

<interval>—Polling interval.

<name>—Name of profile.

<finger> (configuration/system/services)

Usage

```
<configuration>
  <system>
    <services>
      <finger>
        <connection-limit>connection-limit</connection-limit>
        <rate-limit>rate-limit</rate-limit>
      </finger>
    </services>
  </system>
</configuration>
```

Description Allow finger requests from remote systems.

Contents <connection-limit>—Maximum number of allowed connections.

<rate-limit>—Maximum number of connections per minute.

<firewall> (configuration)

Usage

```
<configuration>
  <firewall>
    <policer>...</policer>
    <filter>...</filter>
    <family>...</family>
  </firewall>
</configuration>
```

Description Define a firewall configuration.

Contents <family>—Protocol family.

<filter>—Define an IPv4 firewall filter.

<policer>—Policer template definition.

<flag> (configuration/access/traceoptions)

Usage

```
<configuration>
  <access>
    <traceoptions>
      <flag>
        <name>name</name>     <!-- identifier -->
      </flag>
    </traceoptions>
  </access>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- authentication—All authentication module handling.
- chap—All CHAP messages and handling.
- configuration—Reading of configuration.
- radius—All RADIUS messages and handling.

<flag> (configuration/class-of-service/traceoptions)

Usage

```
<configuration>
  <class-of-service>
    <traceoptions>
      <flag>
        <name>name</name>     <!-- identifier -->
      </flag>
    </traceoptions>
  </class-of-service>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- init—Trace initialization events.
- parse—Trace parser processing.
- process—Trace configuration processing.
- restart—Trace restart processing.
- route-socket—Trace route-socket events.
- show—Trace show command servicing.
- snmp—Trace SNMP-related processing.
- util—Trace utilities.

<flag> (configuration/forwarding-options/helpers/traceoptions)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Area of UDP forwarding helper process on which to enable debugging output.

Contents <name>—No documentation is available yet.

- address—Trace address management code.
- all—Trace all areas of code.

- bootp—Trace BOOTP/DHCP service-specific code.
- config—Trace configuration code.
- domain—Trace DNS service-specific code.
- ifdb—Trace interface database code.
- io—Trace I/O code.
- main—Trace main loop code.
- port—Trace arbitrary protocol code.
- rtsock—Trace routing socket code.
- tftp—Trace TFTP service-specific code.
- trace—Trace tracing code.
- ui—Trace user interface code.
- util—Trace miscellaneous utility code.

<flag> (configuration / interfaces / interface / traceoptions)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </interface>
  </interfaces>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Enable all interface trace flags.
- event—Trace interface events.
- ipc—Trace interface IPC messages.
- media—Trace interface media changes.

<flag> (configuration/interfaces/traceoptions)

Usage

```
<configuration>
  <interfaces>
    <traceoptions>
      <flag>
        <name>name</name>     <!-- identifier -->
        <disable/>
      </flag>
    </traceoptions>
  </interfaces>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Enable all configuration logging.
- change-events—Log changes that produce configuration events.
- config-states—Log the configuration state machine changes.
- kernel—Log configuration IPC messages to kernel.
- kernel-detail—Log details of configuration messages to kernel.

<flag> (configuration/protocols/bgp/group/neighbor/traceoptions)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
              <filter>...</filter>
            </flag>
          </traceoptions>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- all—Trace everything.
- aspath—No documentation is available yet.
- damping—No documentation is available yet.
- general—Trace general events.
- keepalive—No documentation is available yet.
- normal—Trace normal events.
- open—Trace BGP open packets.
- packets—Trace all BGP protocol packets.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- update—Trace BGP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/bgp/group/traceoptions)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
            <filter>...</filter>
          </flag>
        </traceoptions>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- all—Trace everything.
- aspath—No documentation is available yet.
- damping—No documentation is available yet.
- general—Trace general events.
- keepalive—No documentation is available yet.
- normal—Trace normal events.
- open—Trace BGP open packets.
- packets—Trace all BGP protocol packets.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.

- timer—Trace routing protocol timer processing.
- update—Trace BGP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/bgp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
          <filter>...</filter>
        </flag>
      </traceoptions>
    </bgp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- all—Trace everything.
- aspath—No documentation is available yet.
- damping—No documentation is available yet.
- general—Trace general events.
- keepalive—No documentation is available yet.
- normal—Trace normal events.
- open—Trace BGP open packets.
- packets—Trace all BGP protocol packets.
- policy—Trace policy processing.
- route—Trace routing information.

- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- update—Trace BGP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/dvmrp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <dvmrp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </dvmrp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- graft—Trace graft messages.
- neighbor—Trace neighbor probe packets.
- normal—Trace normal events.
- packets—Trace all DVMRP packets.
- poison—Trace poison-route-reverse packets.
- policy—Trace policy processing.
- probe—Trace probe packets.

- prune—Trace prune messages.
- report—Trace DVMRP route report packets.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/igmp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <igmp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </igmp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- leave—Trace leave group messages (IGMPv2 only).
- mtrace—Trace mtrace packets.
- normal—Trace normal events.
- packets—Trace all IGMP packets.
- policy—Trace policy processing.

- query—Trace IGMP membership query messages.
- report—Trace membership report messages.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/isis/traceoptions)

Usage

```
<configuration>
  <protocols>
    <isis>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </isis>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- csn—Trace complete sequence number (CSN) packets.
- error—Trace errored packets.
- general—Trace general events.
- hello—Trace hello packets.
- lsp—Trace link-state packets.
- lsp-generation—Trace LSP generation.

- normal—Trace normal events.
- packets—Trace IS-IS packets.
- policy—Trace policy processing.
- psn—Trace partial sequence number (PSN) packets.
- route—Trace routing information.
- spf—Trace SPF events.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/l2circuit/traceoptions)

Usage

```
<configuration>
  <protocols>
    <l2circuit>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </l2circuit>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- connections—Trace Layer 2 circuit connections.
- error—Trace errors.

- fec—Trace Layer 2 circuit VC FEC advertisements.
- topology—Trace Layer 2 circuit topology changes.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/ldp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ldp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </ldp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- address—Trace address packets.
- all—Trace everything.
- binding—Trace label binding state.
- error—Trace errored packets.
- event—Trace LDP state machine events.
- general—Trace general events.
- initialization—Trace initialization packets.
- label—Trace label packets.
- normal—Trace normal events.
- notification—Trace notification packets.
- packet-dump—Dump the contents of selected packet types.
- packets—Trace all LDP packets.
- path—Trace label path state.
- periodic—Trace periodic (hello and keepalive) packets.
- policy—Trace policy processing.
- route—Trace routing information.

- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/link-management/traceoptions)

Usage

```
<configuration>
  <protocols>
    <link-management>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </link-management>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- init—Trace initialization events.
- parse—Trace parser processing.
- process—Trace general configuration processing.
- route-socket—Trace route-socket events.
- routing—Trace routing protocols interworking.
- server—Trace server processing.
- show—Trace show command servicing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/mld/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mld>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </mld>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- leave—Trace leave group messages (MLDv2 only).
- mtrace—Trace mtrace packets.
- normal—Trace normal events.
- packets—Trace all MLD packets.
- policy—Trace policy processing.
- query—Trace MLD membership query messages.
- report—Trace membership report messages.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/mpls/label-switched-path/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- cspf—Trace CSPF computation.
- cspf-link—Trace links visited during CSPF.
- cspf-node—Trace nodes visited during CSPF.
- state—Trace state transitions.

<flag> (configuration/protocols/mpls/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </mpls>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- connection—Trace CCC activity.
- connection-detail—Trace CCC activity in detail.
- cspf—Trace CSPF computation.

- cspf-link—Trace links visited during CSPF.
- cspf-node—Trace nodes visited during CSPF.
- error—Trace error conditions.
- state—Trace state transitions.

<flag> (configuration/protocols/msdp/group/peer/traceoptions)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <group>
        <peer>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </peer>
      </group>
    </msdp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.
- source-active—Trace source-active messages.
- source-active-request—Trace source-active request messages.

- source-active-response—Trace source-active response messages.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/msdp/group/traceoptions)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <group>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </group>
    </msdp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.
- source-active—Trace source-active messages.

- source-active-request—Trace source-active request messages.
- source-active-response—Trace source-active response messages.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/msdp/peer/traceoptions)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <peer>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </peer>
    </msdp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.

- source-active—Trace source-active messages.
- source-active-request—Trace source-active request messages.
- source-active-response—Trace source-active response messages.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/msdp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </msdp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.

- source-active—Trace source-active messages.
- source-active-request—Trace source-active request messages.
- source-active-response—Trace source-active response messages.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/ospf/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </ospf>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- database-description—Trace database description packets.
- error—Trace errored packets.
- event—Trace OSPF state machine events.
- flooding—Trace LSA flooding.
- general—Trace general events.
- hello—Trace hello packets.

- lsa-ack—Trace LSA acknowledgement packets.
- lsa-request—Trace LSA request packets.
- lsa-update—Trace LSA update packets.
- normal—Trace normal events.
- packet-dump—Dump the contents of selected packet types.
- packets—Trace all OSPF packets.
- policy—Trace policy processing.
- route—Trace routing information.
- spf—Trace SPF calculations.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/ospf3/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </ospf3>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- database-description—Trace database description packets.
- error—Trace errored packets.
- event—Trace OSPF state machine events.
- flooding—Trace LSA flooding.
- general—Trace general events.
- hello—Trace hello packets.
- lsa-ack—Trace LSA acknowledgement packets.
- lsa-request—Trace LSA request packets.
- lsa-update—Trace LSA update packets.
- normal—Trace normal events.
- packet-dump—Dump the contents of selected packet types.
- packets—Trace all OSPF packets.
- policy—Trace policy processing.
- route—Trace routing information.
- spf—Trace SPF calculations.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/pim/traceoptions)

Usage

```
<configuration>
  <protocols>
    <pim>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </pim>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- assert—Trace assert messages.
- autorp—Trace bootstrap/RP/auto-RP messages.
- bootstrap—Trace bootstrap/RP/auto-RP messages.
- general—Trace general events.
- graft—Trace join/prune/graft/graft-ack messages.
- hello—Trace hello packets.
- join—Trace join/prune/graft/graft-ack messages.
- normal—Trace normal events.
- packets—Trace all PIM packets.
- policy—Trace policy processing.
- prune—Trace join/prune/graft/graft-ack messages.
- register—Trace register/register-stop messages.
- route—Trace routing information.
- rp—Trace bootstrap/RP/auto-RP messages.
- state—Trace state transitions.

- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/rip/traceoptions)

Usage

```
<configuration>
  <protocols>
    <rip>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
          <filter>...</filter>
        </flag>
      </traceoptions>
    </rip>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- all—Trace everything.
- auth—Trace RIP authentication.
- error—Trace RIP errors.
- expiration—Trace RIP route expiration processing.
- general—Trace general events.
- holddown—Trace RIP hold-down processing.
- normal—Trace normal events.
- packets—Trace all RIP packets.
- policy—Trace policy processing.
- request—Trace RIP information packets.

- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- trigger—Trace RIP triggered updates.
- update—Trace RIP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/ripng/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ripng>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </ripng>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- error—Trace RIPng errors.
- expiration—Trace RIPng route expiration processing.
- general—Trace general events.
- holddown—Trace RIPng hold-down processing.
- normal—Trace normal events.
- packets—Trace all RIPng packets.

- policy—Trace policy processing.
- request—Trace RIPng information packets.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- trigger—Trace RIPng triggered updates.
- update—Trace RIPng update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/router-advertisement/traceoptions)

Usage

```
<configuration>
  <protocols>
    <router-advertisement>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </router-advertisement>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/protocols/router-discovery/traceoptions)

Usage

```
<configuration>
  <protocols>
    <router-discovery>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </router-discovery>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/protocols/rsvp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <rsvp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </rsvp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- error—Trace error conditions.
- event—Trace RSVP related events.
- lmp—Trace RSVP-LMP related interactions.
- packets—Trace all RSVP packets.
- path—Trace RSVP path messages.
- pathtear—Trace RSVP PathTear messages.
- resv—Trace RSVP Resv messages.
- resvtear—Trace RSVP ResvTear messages.
- route—Trace routing information.
- state—Trace state transitions.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/vrrp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <vrrp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </vrrp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace all events.
- database—Trace database.
- general—Trace general events.

- interfaces—Trace interface messages.
- normal—Trace normal events.
- packets—Trace packets.
- state—Trace state transitions.
- timer—Trace timer events.

<flag> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <traceoptions>
                <flag>
                  <name>name</name>     <!-- identifier -->
                  <send/>
                  <receive/>
                  <detail/>
                  <disable/>
                  <filter>...</filter>
                </flag>
              </traceoptions>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- all—Trace everything.
- aspath—No documentation is available yet.
- damping—No documentation is available yet.
- general—Trace general events.

- keepalive—No documentation is available yet.
- normal—Trace normal events.
- open—Trace BGP open packets.
- packets—Trace all BGP protocol packets.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- update—Trace BGP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/bgp/group/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
                <filter>...</filter>
              </flag>
            </traceoptions>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- all—Trace everything.
- aspath—No documentation is available yet.
- damping—No documentation is available yet.
- general—Trace general events.
- keepalive—No documentation is available yet.
- normal—Trace normal events.
- open—Trace BGP open packets.
- packets—Trace all BGP protocol packets.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- update—Trace BGP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/bgp/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
              <filter>...</filter>
            </flag>
          </traceoptions>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- all—Trace everything.
- aspath—No documentation is available yet.
- damping—No documentation is available yet.
- general—Trace general events.
- keepalive—No documentation is available yet.
- normal—Trace normal events.
- open—Trace BGP open packets.
- packets—Trace all BGP protocol packets.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.

- timer—Trace routing protocol timer processing.
- update—Trace BGP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/isis/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <isis>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </isis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- csn—Trace complete sequence number (CSN) packets.
- error—Trace errored packets.
- general—Trace general events.
- hello—Trace hello packets.
- lsp—Trace link-state packets.
- lsp-generation—Trace LSP generation.
- normal—Trace normal events.
- packets—Trace IS-IS packets.

- policy—Trace policy processing.
- psn—Trace partial sequence number (PSN) packets.
- route—Trace routing information.
- spf—Trace SPF events.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/l2vpn/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <l2vpn>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </l2vpn>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- connections—Trace Layer 2 VPN connections.
- error—Trace errors.
- nlri—Trace Layer 2 VPN remote site advertisements.

- route—Trace Layer 2 VPN PE routes.
- topology—Trace Layer 2 VPN topology changes.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/ldp/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- address—Trace address packets.
- all—Trace everything.
- binding—Trace label binding state.
- error—Trace errored packets.
- event—Trace LDP state machine events.
- general—Trace general events.
- initialization—Trace initialization packets.
- label—Trace label packets.
- normal—Trace normal events.

- notification—Trace notification packets.
- packet-dump—Dump the contents of selected packet types.
- packets—Trace all LDP packets.
- path—Trace label path state.
- periodic—Trace periodic (hello and keepalive) packets.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration / routing-instances / instance / protocols / ospf / traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- database-description—Trace database description packets.
- error—Trace errored packets.
- event—Trace OSPF state machine events.
- flooding—Trace LSA flooding.
- general—Trace general events.
- hello—Trace hello packets.
- lsa-ack—Trace LSA acknowledgement packets.
- lsa-request—Trace LSA request packets.
- lsa-update—Trace LSA update packets.
- normal—Trace normal events.
- packet-dump—Dump the contents of selected packet types.
- packets—Trace all OSPF packets.
- policy—Trace policy processing.
- route—Trace routing information.
- spf—Trace SPF calculations.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/pim/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- assert—Trace assert messages.
- autorp—Trace bootstrap/RP/auto-RP messages.
- bootstrap—Trace bootstrap/RP/auto-RP messages.
- general—Trace general events.
- graft—Trace join/prune/graft/graft-ack messages.
- hello—Trace hello packets.
- join—Trace join/prune/graft/graft-ack messages.
- normal—Trace normal events.
- packets—Trace all PIM packets.
- policy—Trace policy processing.
- prune—Trace join/prune/graft/graft-ack messages.
- register—Trace register/register-stop messages.
- route—Trace routing information.

- rp—Trace bootstrap/RP/auto-RP messages.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/rip/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
              <filter>...</filter>
            </flag>
          </traceoptions>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- all—Trace everything.
- auth—Trace RIP authentication.
- error—Trace RIP errors.
- expiration—Trace RIP route expiration processing.
- general—Trace general events.
- holddown—Trace RIP hold-down processing.

- normal—Trace normal events.
- packets—Trace all RIP packets.
- policy—Trace policy processing.
- request—Trace RIP information packets.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- trigger—Trace RIP triggered updates.
- update—Trace RIP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/router-discovery/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <router-discovery>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
            </flag>
          </traceoptions>
        </router-discovery>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.

- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/routing-instances/instance/routing-options/auto-export/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <auto-export>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </auto-export>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- export—Export processing.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/routing-options/resolution/traceoptions)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <resolution>
               <traceoptions>
                  <flag>
                     <name>name</name>     <!-- identifier -->
                     <send/>
                     <receive/>
                     <detail/>
                     <disable/>
                  </flag>
               </traceoptions>
            </resolution>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- event—Event processing.
- flash—Flash processing.
- indirect—Indirect next-hop addition, change, or deletion.
- kernel—Kernel communication.
- task—Task or job processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration / routing-instances / instance / routing-options / traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <disable/>
          </flag>
        </traceoptions>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- config-internal—Trace configuration internals.
- general—Trace general events.
- normal—Trace normal events.
- parse—Trace configuration parsing.
- policy—Trace policy processing.
- regex-parse—Trace regular-expression parsing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/routing-options/auto-export/traceoptions)

Usage

```
<configuration>
  <routing-options>
    <auto-export>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </auto-export>
  </routing-options>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- export—Export processing.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-options/resolution/traceoptions)

Usage

```
<configuration>
  <routing-options>
    <resolution>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </resolution>
  </routing-options>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- event—Event processing.
- flash—Flash processing.
- indirect—Indirect next-hop addition, change, or deletion.
- kernel—Kernel communication.
- task—Task or job processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-options/traceoptions)

Usage

```
<configuration>
  <routing-options>
    <traceoptions>
      <flag>
        <name>name</name>     <!-- identifier -->
        <disable/>
      </flag>
    </traceoptions>
  </routing-options>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- config-internal—Trace configuration internals.
- general—Trace general events.
- normal—Trace normal events.
- parse—Trace configuration parsing.
- policy—Trace policy processing.
- regex-parse—Trace regular-expression parsing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/security/traceoptions)

Usage

```
<configuration>
  <security>
    <traceoptions>
      <flag>
        <name>name</name>     <!-- identifier -->
      </flag>
    </traceoptions>
  </security>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- database—Trace database events.
- general—Trace general events.
- ike—Trace IKE module processing.
- parse—Trace configuration processing.
- policy-manager—Trace policy manager processing.

- routing-socket—Trace routing socket messages.
- timer—Trace internal timer events.

<flag> (configuration/services/logging/traceoptions)

Usage

```
<configuration>
  <services>
    <logging>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </logging>
  </services>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- bookkeeping—Trace bookkeeping events.
- connections—Trace connection-specific events.
- init—Trace initialization events.

<flag> (configuration/snmp/traceoptions)

Usage

```
<configuration>
  <snmp>
    <traceoptions>
      <flag>
        <name>name</name>     <!-- identifier -->
      </flag>
    </traceoptions>
  </snmp>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- interface-stats—Trace interface statistics (logical and physical).
- pdu—Dump SNMP request/response packets.
- protocol-timeouts—Trace SNMP request timeouts.

- routing-socket—Trace routing socket calls.
- subagent—Trace subagent restarts.
- timer—Trace internal timer events.
- varbind-error—Trace varbind errors.

<flat-rate> (configuration/services/ggsn/charging/characteristics)

Usage

```
<configuration>
  <services>
    <ggsn>
      <charging>
        <characteristics>
          <flat-rate>
            <volume-limit>kilobytes</volume-limit>
            <time-limit>minutes</time-limit>
            <call-detail/>
            <change-limit>change-limit</change-limit>
          </flat-rate>
        </characteristics>
      </charging>
    </ggsn>
  </services>
</configuration>
```

Description Flat-rate clients.

Contents <call-detail>—Generate call detail records.

<change-limit>—Maximum record changes to buffer on PIC.

<time-limit>—Time to buffer charging data.

<volume-limit>—Volume of charging data to buffer.

<forwarding-class> (configuration/class-of-service/classifiers/dscp)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <dscp>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </dscp>
    </classifiers>
  </class-of-service>
</configuration>
```

Description Define a classification of code point aliases.

Contents <loss-priority>—Classify code points to a loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/class-of-service/classifiers/exp)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <exp>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </exp>
    </classifiers>
  </class-of-service>
</configuration>
```

Description Define a classification of code point aliases.

Contents <loss-priority>—Classify code points to a loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/class-of-service/classifiers/ieee-802.1)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <ieee-802.1>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </ieee-802.1>
    </classifiers>
  </class-of-service>
</configuration>
```

Description Define a classification of code point aliases.

Contents <loss-priority>—Classify code points to a loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/class-of-service/classifiers/inet-precedence)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <inet-precedence>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </inet-precedence>
    </classifiers>
  </class-of-service>
</configuration>
```

Description Define a classification of code point aliases.

Contents <loss-priority>—Classify code points to a loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/class-of-service/forwarding-policy/next-hop-map)

Usage

```
<configuration>
  <class-of-service>
    <forwarding-policy>
      <next-hop-map>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <next-hop>...</next-hop>
          <lsp-next-hop>...</lsp-next-hop>
        </forwarding-class>
      </next-hop-map>
    </forwarding-policy>
  </class-of-service>
</configuration>
```

Description Forwarding class from which to map.

Contents <lsp-next-hop>—Regular expression for LSP next hop.

<name>—Forwarding class.

<next-hop>—Next-hop identifier to which to map.

<forwarding-class> (configuration/class-of-service/rewrite-rules/dscp)

Usage

```
<configuration>
  <class-of-service>
    <rewrite-rules>
      <dscp>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </dscp>
    </rewrite-rules>
  </class-of-service>
</configuration>
```

Description Markings for named forwarding class.

Contents <loss-priority>—Code point marking based on loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/class-of-service/rewrite-rules/exp)

Usage

```
<configuration>
  <class-of-service>
    <rewrite-rules>
      <exp>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </exp>
    </rewrite-rules>
  </class-of-service>
</configuration>
```

Description Markings for named forwarding class.

Contents <loss-priority>—Code point marking based on loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/class-of-service/rewrite-rules/inet-precedence)

Usage

```
<configuration>
  <class-of-service>
    <rewrite-rules>
      <inet-precedence>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </inet-precedence>
    </rewrite-rules>
  </class-of-service>
</configuration>
```

Description Markings for named forwarding class.

Contents <loss-priority>—Code point marking based on loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration / class-of-service / scheduler-maps)

Usage

```
<configuration>
  <class-of-service>
    <scheduler-maps>
      <forwarding-class>
        <name>name</name>     <!-- identifier -->
        <scheduler>scheduler</scheduler>     <!-- mandatory -->
      </forwarding-class>
    </scheduler-maps>
  </class-of-service>
</configuration>
```

Description Forwarding class name to map to scheduler.

Contents <name>—Forwarding class name.

<scheduler>—Scheduler name.

<forwarding-classes> (configuration / class-of-service)

Usage

```
<configuration>
  <class-of-service>
    <forwarding-classes>
      <queue>...</queue>
    </forwarding-classes>
  </class-of-service>
</configuration>
```

Description Forwarding classes defined.

Contents <queue>—Queue number to map to forwarding class.

<forwarding-options> (configuration)

Usage

```
<configuration>
  <forwarding-options>
    <sampling>...</sampling>
    <monitoring>...</monitoring>
    <hash-key>...</hash-key>
    <helpers>...</helpers>
    <family>...</family>
  </forwarding-options>
</configuration>
```

Description Configure options to control packet sampling.

Contents <family>—Protocol family.

<hash-key>—Select data used in the hash key.

<helpers>—Port forwarding configuration.

<monitoring>—Configure lawful interception of traffic.

<sampling>—Statistical traffic sampling options.

<forwarding-policy> (configuration/class-of-service)

Usage

```
<configuration>
  <class-of-service>
    <forwarding-policy>
      <next-hop-map>...</next-hop-map>
      <class>...</class>
    </forwarding-policy>
  </class-of-service>
</configuration>
```

Description Class-of-service forwarding policy.

Contents <class>—Class-of-service description.

<next-hop-map>—Class-of-service next-hop map.

<forwarding-table> (configuration/routing-instances/instance/routing-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <forwarding-table>
          <export>...</export>
          <unicast-reverse-path>unicast-reverse-path-choice</unicast-reverse-path>
        </forwarding-table>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Forwarding table management options.

Contents <export>—Export policy.

<unicast-reverse-path>—Unicast reverse path (RP) verification.

- active-paths—Consider active paths when performing RP verification.
- feasible-paths—Consider all feasible paths for RP verification.

<forwarding-table> (configuration/routing-options)

Usage

```
<configuration>
  <routing-options>
    <forwarding-table>
      <export>...</export>
      <unicast-reverse-path>unicast-reverse-path-choice</unicast-reverse-path>
    </forwarding-table>
  </routing-options>
</configuration>
```

Description Forwarding table management options.

Contents <export>—Export policy.

<unicast-reverse-path>—Unicast reverse path (RP) verification.

- active-paths—Consider active paths when performing RP verification.
- feasible-paths—Consider all feasible paths for RP verification.

<fpc> (configuration/chassis)

Usage

```
<configuration>
  <chassis>
    <fpc>
      <name>name</name>     <!-- identifier -->
      <pic>...</pic>
    </fpc>
  </chassis>
</configuration>
```

Description Flexible PIC Concentrator (FPC) card parameters.

Contents <name>—FPC slot number.

<pic>—Physical Interface Card (PIC) number.

<fragment-offset> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <fragment-offset>
                <name>name</name>     <!-- identifier -->
              </fragment-offset>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match fragment offset.

Contents <name>—Range of values.

<fragment-offset> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <fragment-offset>
            <name>name</name>     <!-- identifier -->
          </fragment-offset>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match fragment offset.

Contents <name>—Range of values.

<fragment-offset-except> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <fragment-offset-except>
                <name>name</name>     <!-- identifier -->
              </fragment-offset-except>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Do not match fragment offset.

Contents <name>—Range of values.

<fragment-offset-except> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <fragment-offset-except>
            <name>name</name>     <!-- identifier -->
          </fragment-offset-except>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Do not match fragment offset.

Contents <name>—Range of values.

<from> (configuration/firewall/family/inet/filter/term)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <interface-group>...</interface-group>
              <interface-group-except>...</interface-group-except>
              <source-address>...</source-address>
              <destination-address>...</destination-address>
              <address>...</address>
              <source-prefix-list>...</source-prefix-list>
              <destination-prefix-list>...</destination-prefix-list>
              <prefix-list>...</prefix-list>
              <packet-length>...</packet-length>
              <packet-length-except>...</packet-length-except>
              <precedence>...</precedence>
              <precedence-except>...</precedence-except>
              <dscp>...</dscp>
              <dscp-except>...</dscp-except>
              <ip-options>...</ip-options>
              <ip-options-except>...</ip-options-except>
              <is-fragment/>
              <first-fragment/>
              <fragment-offset>...</fragment-offset>
              <fragment-offset-except>...</fragment-offset-except>
              <fragment-flags>fragment-flags</fragment-flags>
              <protocol>...</protocol>
              <protocol-except>...</protocol-except>
              <icmp-type>...</icmp-type>
              <icmp-type-except>...</icmp-type-except>
              <icmp-code>...</icmp-code>
              <icmp-code-except>...</icmp-code-except>
              <source-port>...</source-port>
              <source-port-except>...</source-port-except>
              <destination-port>...</destination-port>
              <destination-port-except>...</destination-port-except>
              <port>...</port>
              <port-except>...</port-except>
              <tcp-initial/>
              <tcp-established/>
              <tcp-flags>tcp-flags</tcp-flags>
              <esp-spi>...</esp-spi>
              <esp-spi-except>...</esp-spi-except>
              <ah-spi>...</ah-spi>
              <ah-spi-except>...</ah-spi-except>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Define match criteria.

Contents <address>—Match IP source or destination address.

<ah-spi>—Match IPSec AH SPI value.

<ah-spi-except>—Do not match IPSec AH SPI value.

<destination-address>—Match IP destination address.

<destination-port>—Match TCP/UDP destination port.

<destination-port-except>—Do not match TCP/UDP destination port.

<destination-prefix-list>—Match IP destination prefix list.

<dscp>—Match Differentiated Services (DiffServ) code point.

<dscp-except>—Do not match Differentiated Services (DiffServ) code point.

<esp-spi>—Match IPSec ESP SPI value.

<esp-spi-except>—Do not match IPSec ESP SPI value.

<first-fragment>—Match if packet is the first fragment.

<fragment-flags>—Match fragment flags.

<fragment-offset>—Match fragment offset.

<fragment-offset-except>—Do not match fragment offset.

<icmp-code>—Match ICMP message code.

<icmp-code-except>—Do not match ICMP message code.

<icmp-type>—Match ICMP message type.

<icmp-type-except>—Do not match ICMP message type.

<interface-group>—Match interface group.

<interface-group-except>—Do not match interface group.

<ip-options>—Match IP options.

<ip-options-except>—Do not match IP options.

<is-fragment>—Match if packet is a fragment.

<packet-length>—Match packet length.

<packet-length-except>—Do not match packet length.

<port>—Match TCP/UDP source or destination port.

<port-except>—Do not match TCP/UDP source or destination port.

<precedence>—Match IP precedence value.

<precedence-except>—Do not match IP precedence value.

<prefix-list>—Match IP source or destination prefix list.

<protocol>—Match IP protocol type.

<protocol-except>—Do not match IP protocol type.

<source-address>—Match IP source address.

<source-port>—Match TCP/UDP source port.

<source-port-except>—Do not match TCP/UDP source port.

<source-prefix-list>—Match IP source prefix list.

<tcp-established>—Match packet of an established TCP connection.

<tcp-flags>—Match TCP flags.

<tcp-initial>—Match initial packet of a TCP connection.

<from> (configuration/firewall/family/inet6/filter/term)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <interface-group>...</interface-group>
              <interface-group-except>...</interface-group-except>
              <source-address>...</source-address>
              <destination-address>...</destination-address>
              <address>...</address>
              <packet-length>...</packet-length>
              <packet-length-except>...</packet-length-except>
              <traffic-class>...</traffic-class>
              <traffic-class-except>...</traffic-class-except>
              <next-header>...</next-header>
              <next-header-except>...</next-header-except>
              <icmp-type>...</icmp-type>
              <icmp-type-except>...</icmp-type-except>
              <icmp-code>...</icmp-code>
              <icmp-code-except>...</icmp-code-except>
              <source-port>...</source-port>
              <source-port-except>...</source-port-except>
              <destination-port>...</destination-port>
              <destination-port-except>...</destination-port-except>
              <port>...</port>
              <port-except>...</port-except>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Define match criteria.

Contents <address>—Match IP source or destination address.

<destination-address>—Match IP destination address.

<destination-port>—Match TCP/UDP destination port.

<destination-port-except>—Do not match TCP/UDP destination port.

<icmp-code>—Match ICMP message code.

<icmp-code-except>—Do not match ICMP message code.

<icmp-type>—Match ICMP message type.

<icmp-type-except>—Do not match ICMP message type.

<interface-group>—Match interface group.

<interface-group-except>—Do not match interface group.

<next-header>—Match IP protocol type.

<next-header-except>—Do not match IP protocol type.

<packet-length>—Match packet length.

<packet-length-except>—Do not match packet length.

<port>—Match TCP/UDP source or destination port.

<port-except>—Do not match TCP/UDP source or destination port.

<source-address>—Match IP source address.

<source-port>—Match TCP/UDP source port.

<source-port-except>—Do not match TCP/UDP source port.

<traffic-class>—Match DiffServ code point.

<traffic-class-except>—Do not match DiffServ code point.

<from> (configuration / firewall / family / mpls / filter / term)

Usage

```
<configuration>
  <firewall>
    <family>
      <mpls>
        <filter>
          <term>
            <from>
              <exp>...</exp>
              <exp-except>...</exp-except>
            </from>
          </term>
        </filter>
      </mpls>
    </family>
  </firewall>
</configuration>
```

Description Define match criteria.

Contents <exp>—Match MPLS EXP bits.

<exp-except>—Do not match MPLS EXP bits.

<from> (configuration/firewall/filter/term)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <interface-group>...</interface-group>
          <interface-group-except>...</interface-group-except>
          <source-address>...</source-address>
          <destination-address>...</destination-address>
          <address>...</address>
          <source-prefix-list>...</source-prefix-list>
          <destination-prefix-list>...</destination-prefix-list>
          <prefix-list>...</prefix-list>
          <packet-length>...</packet-length>
          <packet-length-except>...</packet-length-except>
          <precedence>...</precedence>
          <precedence-except>...</precedence-except>
          <dscp>...</dscp>
          <dscp-except>...</dscp-except>
          <ip-options>...</ip-options>
          <ip-options-except>...</ip-options-except>
          <is-fragment/>
          <first-fragment/>
          <fragment-offset>...</fragment-offset>
          <fragment-offset-except>...</fragment-offset-except>
          <fragment-flags>fragment-flags</fragment-flags>
          <protocol>...</protocol>
          <protocol-except>...</protocol-except>
          <icmp-type>...</icmp-type>
          <icmp-type-except>...</icmp-type-except>
          <icmp-code>...</icmp-code>
          <icmp-code-except>...</icmp-code-except>
          <source-port>...</source-port>
          <source-port-except>...</source-port-except>
          <destination-port>...</destination-port>
          <destination-port-except>...</destination-port-except>
          <port>...</port>
          <port-except>...</port-except>
          <tcp-initial/>
          <tcp-established/>
          <tcp-flags>tcp-flags</tcp-flags>
          <esp-spi>...</esp-spi>
          <esp-spi-except>...</esp-spi-except>
          <ah-spi>...</ah-spi>
          <ah-spi-except>...</ah-spi-except>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Define match criteria.

Contents <address>—Match IP source or destination address.

<ah-spi>—Match IPSec AH SPI value.

<ah-spi-except>—Do not match IPSec AH SPI value.

<destination-address>—Match IP destination address.

<destination-port>—Match TCP/UDP destination port.

<destination-port-except>—Do not match TCP/UDP destination port.

<destination-prefix-list>—Match IP destination prefix list.

<dscp>—Match Differentiated Services (DiffServ) code point.

<dscp-except>—Do not match Differentiated Services (DiffServ) code point.

<esp-spi>—Match IPSec ESP SPI value.

<esp-spi-except>—Do not match IPSec ESP SPI value.

<first-fragment>—Match if packet is the first fragment.

<fragment-flags>—Match fragment flags.

<fragment-offset>—Match fragment offset.

<fragment-offset-except>—Do not match fragment offset.

<icmp-code>—Match ICMP message code.

<icmp-code-except>—Do not match ICMP message code.

<icmp-type>—Match ICMP message type.

<icmp-type-except>—Do not match ICMP message type.

<interface-group>—Match interface group.

<interface-group-except>—Do not match interface group.

<ip-options>—Match IP options.

<ip-options-except>—Do not match IP options.

<is-fragment>—Match if packet is a fragment.

<packet-length>—Match packet length.

<packet-length-except>—Do not match packet length.

<port>—Match TCP/UDP source or destination port.

<port-except>—Do not match TCP/UDP source or destination port.

<precedence>—Match IP precedence value.

<precedence-except>—Do not match IP precedence value.

<prefix-list>—Match IP source or destination prefix list.

<protocol>—Match IP protocol type.

<protocol-except>—Do not match IP protocol type.

<source-address>—Match IP source address.

<source-port>—Match TCP/UDP source port.

<source-port-except>—Do not match TCP/UDP source port.

<source-prefix-list>—Match IP source prefix list.

<tcp-established>—Match packet of an established TCP connection.

<tcp-flags>—Match TCP flags.

<tcp-initial>—Match initial packet of a TCP connection.

<from> (configuration/policy-options/policy-statement)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <instance>instance</instance>
        <protocol>...</protocol>
        <rib>rib</rib>
        <neighbor>...</neighbor>
        <next-hop>...</next-hop>
        <interface>...</interface>
        <area>area</area>
        <as-path>...</as-path>
        <origin>origin-choice</origin>
        <community>...</community>
        <level>level</level>
        <external>...</external>
        <metric>metric</metric>
        <metric2>metric2</metric2>
        <metric3>metric3</metric3>
        <metric4>metric4</metric4>
        <tag>tag</tag>
        <tag2>tag2</tag2>
        <preference>preference</preference>
        <preference2>preference2</preference2>
        <color>color</color>
        <color2>color2</color2>
        <local-preference>local-preference</local-preference>
        <policy>...</policy>
        <family>family-choice</family>
        <route-filter>...</route-filter>
        <source-address-filter>...</source-address-filter>
        <prefix-list>...</prefix-list>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Conditions to match a route's source.

Contents <area>—OSPF area identifier.

<as-path>—Name of AS path regular expression (BGP only).

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community.

<external>—External route.

<family>—No documentation is available yet.

- inet—IPv4 family.
- inet6—IPv6 family.

<instance>—Routing protocol instance.

<interface>—Interface name or address.

<level>—IS-IS level.

<local-preference>—Local preference associated with a route.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<neighbor>—Neighboring router.

<next-hop>—Next-hop router.

<origin>—BGP origin attribute.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<policy>—Name of policy to evaluate.

<preference>—Preference value.

<preference2>—Preference value 2.

<prefix-list>—List of prefix-lists of routes to match.

<protocol>—Protocol from which route was learned.

<rib>—Routing table.

<route-filter>—List of routes to match.

<source-address-filter>—List of source addresses to match.

<tag>—Tag string.

<tag2>—Tag string 2.

<from> (configuration/policy-options/policy-statement/term)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <instance>instance</instance>
          <protocol>...</protocol>
          <rib>rib</rib>
          <neighbor>...</neighbor>
          <next-hop>...</next-hop>
          <interface>...</interface>
          <area>area</area>
          <as-path>...</as-path>
          <origin>origin-choice</origin>
          <community>...</community>
          <level>level</level>
          <external>...</external>
          <metric>metric</metric>
          <metric2>metric2</metric2>
          <metric3>metric3</metric3>
          <metric4>metric4</metric4>
          <tag>tag</tag>
          <tag2>tag2</tag2>
          <preference>preference</preference>
          <preference2>preference2</preference2>
          <color>color</color>
          <color2>color2</color2>
          <local-preference>local-preference</local-preference>
          <policy>...</policy>
          <family>family-choice</family>
          <route-filter>...</route-filter>
          <source-address-filter>...</source-address-filter>
          <prefix-list>...</prefix-list>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Conditions to match a route's source.

Contents <area>—OSPF area identifier.

<as-path>—Name of AS path regular expression (BGP only).

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community.

<external>—External route.

<family>—No documentation is available yet.

- inet—IPv4 family.
- inet6—IPv6 family.

<instance>—Routing protocol instance.

<interface>—Interface name or address.

<level>—IS-IS level.

<local-preference>—Local preference associated with a route.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<neighbor>—Neighboring router.

<next-hop>—Next-hop router.

<origin>—BGP origin attribute.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<policy>—Name of policy to evaluate.

<preference>—Preference value.

<preference2>—Preference value 2.

<prefix-list>—List of prefix-lists of routes to match.

<protocol>—Protocol from which route was learned.

<rib>—Routing table.

<route-filter>—List of routes to match.

<source-address-filter>—List of source addresses to match.

<tag>—Tag string.

<tag2>—Tag string 2.

<from> (configuration/routing-instances/instance/routing-options/fate-sharing/group)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <fate-sharing>
               <group>
                  <from>
                     <name>name</name>     <!-- identifier -->
                     <to>to</to>
                  </from>
               </group>
            </fate-sharing>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description No documentation is available yet.

Contents <name>—Router ID or LAN interface address.

<to>—Point-to-point links.

<from> (configuration/routing-options/fate-sharing/group)

Usage

```
<configuration>
   <routing-options>
      <fate-sharing>
         <group>
            <from>
               <name>name</name>     <!-- identifier -->
               <to>to</to>
            </from>
         </group>
      </fate-sharing>
   </routing-options>
</configuration>
```

Description No documentation is available yet.

Contents <name>—Router ID or LAN interface address.

<to>—Point-to-point links.

<ftp> (configuration/system/services)

Usage

```
<configuration>
  <system>
    <services>
      <ftp>
        <connection-limit>connection-limit</connection-limit>
        <rate-limit>rate-limit</rate-limit>
      </ftp>
    </services>
  </system>
</configuration>
```

Description Allow FTP file transfers.

Contents <connection-limit>—Maximum number of allowed connections.

<rate-limit>—Maximum number of connections per minute.

<generate> (configuration/routing-instances/instance/routing-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <generate>
          <defaults>...</defaults>
          <route>...</route>
        </generate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Route of last resort.

Contents <defaults>—Global route options.

<route>—Individual route options.

<generate> (configuration / routing-instances / instance / routing-options / rib)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <defaults>...</defaults>
            <route>...</route>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Route of last resort.

Contents <defaults>—Global route options.

<route>—Individual route options.

<generate> (configuration / routing-options)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <defaults>...</defaults>
      <route>...</route>
    </generate>
  </routing-options>
</configuration>
```

Description Route of last resort.

Contents <defaults>—Global route options.

<route>—Individual route options.

<generate> (configuration/routing-options/rib)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <defaults>...</defaults>
        <route>...</route>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Route of last resort.

Contents <defaults>—Global route options.

<route>—Individual route options.

<ggsn> (configuration/services)

Usage

```
<configuration>
  <services>
    <ggsn>
      <gom-routing-instance>...</gom-routing-instance>
      <mcc-mnc>mcc-mnc</mcc-mnc>
      <trace>...</trace>
      <pdp-context>...</pdp-context>
      <ggsnc>...</ggsnc>     <!-- mandatory -->
      <ggsnu>...</ggsnu>     <!-- mandatory -->
      <gtp>...</gtp>
      <charging>...</charging>     <!-- mandatory -->
      <apn>...</apn>
      <logical-apn>...</logical-apn>
      <outband-dhcp-server>...</outband-dhcp-server>
      <outband-radius-server>...</outband-radius-server>
    </ggsn>
  </services>
</configuration>
```

Description GGSN settings.

Contents <apn>—Access point configuration.

<charging>—GGSN charging and CDR configuration.

<ggsnc>—Global settings for GGSN-C PICs.

<ggsnu>—Global settings for GGSN-U PICs.

<gom-routing-instance>—Routing instance for Gom network.

<gtp>—Protocol settings for SGSN-GGSN GTP communication.

<logical-apn>—Logical access point name configuration.

<mcc-mnc>—Mobile Country Code and Mobile Network Code.

<outband-dhcp-server>—Outband DHCP server configuration.

<outband-radius-server>—Outband RADIUS server configuration.

<pdp-context>—PDP context creation settings.

<trace>—Trace settings.

<ggsn-options> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <ggsn-options>
        <boot-string>boot-string</boot-string>
        <syslog/>
        <core-dump/>
      </ggsn-options>
    </interface>
  </interfaces>
</configuration>
```

Description GGSN interface-specific options.

Contents <boot-string>—Boot string for GGSN PIC.

<core-dump>—Enable core dumping on this interface.

<syslog>—Enable system logging on this interface.

<ggsnc> (configuration/services/ggsn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <ggsnc>
        <gn-address-range>gn-address-range</gn-address-range>     <!-- mandatory -->
        <gom-address-range>gom-address-range</gom-address-range>
        <redundancy>...</redundancy>
      </ggsnc>
    </ggsn>
  </services>
</configuration>
```

Description Global settings for GGSN-C PICs.

Contents <gn-address-range>—Gn network address range for GGSN-C PICs.

<gom-address-range>—Gom network address range for GGSN-C PICs.

<redundancy>—Preferred redundancy arrangement for GGSN-C PICs.

<ggsnu> (configuration/services/ggsn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <ggsnu>
        <gn-address-range>gn-address-range</gn-address-range>     <!-- mandatory -->
        <gom-address-range>gom-address-range</gom-address-range>
        <redundancy>...</redundancy>
      </ggsnu>
    </ggsn>
  </services>
</configuration>
```

Description Global settings for GGSN-U PICs.

Contents <gn-address-range>—Gn network address range for GGSN-U PICs.

<gom-address-range>—Gom network address range for GGSN-U PICs.

<redundancy>—Preferred redundancy arrangement for GGSN-U PICs.

<gigether-options> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <gigether-options>
        <loopback/>
        <flow-control/>
        <source-filtering/>
        <source-address-filter>...</source-address-filter>
        <ieee-802.3ad>ieee-802.3ad</ieee-802.3ad>
      </gigether-options>
    </interface>
  </interfaces>
</configuration>
```

Description Gigabit Ethernet interface-specific options.

Contents <flow-control>—Enable flow control.

<ieee-802.3ad>—Join an aggregated Ethernet interface.

<loopback>—Enable loopback.

<source-address-filter>—Source address filters.

<source-filtering>—Enable source address filtering.

<gn-routing-instance> (configuration/services/ggsn/gtp)

Usage

```
<configuration>
  <services>
    <ggsn>
      <gtp>
        <gn-routing-instance>
          <name>name</name>
        </gn-routing-instance>
      </gtp>
    </ggsn>
  </services>
</configuration>
```

Description Routing instance for Gn network.

Contents <name>—Routing instance name.

<gom-routing-instance> (configuration/services/ggsn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <gom-routing-instance>
        <name>name</name>
      </gom-routing-instance>
    </ggsn>
  </services>
</configuration>
```

Description Routing instance for Gom network.

Contents <name>—Routing instance name.

<graceful-restart> (configuration/protocols/bgp)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <graceful-restart>
        <disable/>
        <restart-time>restart-time</restart-time>
        <stale-routes-time>stale-routes-time</stale-routes-time>
      </graceful-restart>
    </bgp>
  </protocols>
</configuration>
```

Description BGP graceful restart options.

Contents <disable>—Disable graceful restart.

<restart-time>—Restart time used when negotiating with a peer.

<stale-routes-time>—Maximum time for which stale routes are kept.

<graceful-restart> (configuration/protocols/bgp/group)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <graceful-restart>
          <disable/>
          <restart-time>restart-time</restart-time>
          <stale-routes-time>stale-routes-time</stale-routes-time>
        </graceful-restart>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description BGP graceful restart options.

Contents <disable>—Disable graceful restart.

<restart-time>—Restart time used when negotiating with a peer.

<stale-routes-time>—Maximum time for which stale routes are kept.

<graceful-restart> (configuration/protocols/bgp/group/neighbor)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <graceful-restart>
            <disable/>
            <restart-time>restart-time</restart-time>
            <stale-routes-time>stale-routes-time</stale-routes-time>
          </graceful-restart>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description BGP graceful restart options.

Contents <disable>—Disable graceful restart.

<restart-time>—Restart time used when negotiating with a peer.

<stale-routes-time>—Maximum time for which stale routes are kept.

<graceful-restart> (configuration/protocols/isis)

Usage

```
<configuration>
  <protocols>
    <isis>
      <graceful-restart>
        <disable/>
        <helper-disable/>
        <restart-duration>seconds</restart-duration>
      </graceful-restart>
    </isis>
  </protocols>
</configuration>
```

Description IS-IS graceful restart options.

Contents <disable>—Disable graceful restart.

<helper-disable>—Disable graceful restart helper capability.

<restart-duration>—Maximum time for graceful restart to finish.

<graceful-restart> (configuration/protocols/ldp)

Usage

```
<configuration>
  <protocols>
    <ldp>
      <graceful-restart>
        <disable/>
        <helper-disable/>
      </graceful-restart>
    </ldp>
  </protocols>
</configuration>
```

Description Configure graceful restart attributes.

Contents <disable>—Disable graceful restart.

<helper-disable>—Disable the graceful restart helper capability.

<graceful-restart> (configuration/protocols/ospf)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <graceful-restart>
        <disable/>
        <restart-duration>seconds</restart-duration>
        <notify-duration>seconds</notify-duration>
        <helper-disable/>
      </graceful-restart>
    </ospf>
  </protocols>
</configuration>
```

Description Configure graceful restart attributes.

Contents <disable>—Disable OSPF graceful restart capability.

<helper-disable>—Disable graceful restart helper capability.

<notify-duration>—Time to send all max-aged grace LSAs.

<restart-duration>—Time for all neighbors to become full.

<graceful-restart> (configuration/protocols/ospf3)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <graceful-restart>
        <disable/>
        <restart-duration>seconds</restart-duration>
        <notify-duration>seconds</notify-duration>
        <helper-disable/>
      </graceful-restart>
    </ospf3>
  </protocols>
</configuration>
```

Description Configure graceful restart attributes.

Contents <disable>—Disable OSPF graceful restart capability.

<helper-disable>—Disable graceful restart helper capability.

<notify-duration>—Time to send all max-aged grace LSAs.

<restart-duration>—Time for all neighbors to become full.

<graceful-restart> (configuration/protocols/rip)

Usage

```
<configuration>
  <protocols>
    <rip>
      <graceful-restart>
        <disable/>
        <restart-time>restart-time</restart-time>
      </graceful-restart>
    </rip>
  </protocols>
</configuration>
```

Description RIP graceful restart options.

Contents <disable>—Disable graceful restart.

<restart-time>—Time after which RIP is declared out of restart.

<graceful-restart> (configuration/protocols/ripng)

Usage

```
<configuration>
  <protocols>
    <ripng>
      <graceful-restart>
        <disable/>
        <restart-time>restart-time</restart-time>
      </graceful-restart>
    </ripng>
  </protocols>
</configuration>
```

Description RIPng graceful restart options.

Contents <disable>—Disable graceful restart.

<restart-time>—Time after which RIPng is declared out of restart.

<graceful-restart> (configuration/protocols/rsvp)

Usage

```
<configuration>
  <protocols>
    <rsvp>
      <graceful-restart>
        <disable/>
        <helper-disable/>
      </graceful-restart>
    </rsvp>
  </protocols>
</configuration>
```

Description Configure graceful restart attributes.

Contents <disable>—Disable RSVP graceful-restart capability.

<helper-disable>—Disable graceful restart helper capability.

<graceful-restart> (configuration/routing-instances/instance/protocols/bgp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <graceful-restart>
            <disable/>
            <restart-time>restart-time</restart-time>
            <stale-routes-time>stale-routes-time</stale-routes-time>
          </graceful-restart>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description BGP graceful restart options.

Contents <disable>—Disable graceful restart.

<restart-time>—Restart time used when negotiating with a peer.

<stale-routes-time>—Maximum time for which stale routes are kept.

<graceful-restart> (configuration/routing-instances/instance/protocols/bgp/group)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <graceful-restart>
              <disable/>
              <restart-time>restart-time</restart-time>
              <stale-routes-time>stale-routes-time</stale-routes-time>
            </graceful-restart>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description BGP graceful restart options.

Contents <disable>—Disable graceful restart.

<restart-time>—Restart time used when negotiating with a peer.

<stale-routes-time>—Maximum time for which stale routes are kept.

<graceful-restart> (configuration/routing-instances/instance/protocols/bgp/group/neighbor)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <graceful-restart>
                <disable/>
                <restart-time>restart-time</restart-time>
                <stale-routes-time>stale-routes-time</stale-routes-time>
              </graceful-restart>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description BGP graceful restart options.

Contents <disable>—Disable graceful restart.

<restart-time>—Restart time used when negotiating with a peer.

<stale-routes-time>—Maximum time for which stale routes are kept.

<graceful-restart> (configuration / routing-instances / instance / protocols / isis)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <isis>
          <graceful-restart>
            <disable/>
            <helper-disable/>
            <restart-duration>seconds</restart-duration>
          </graceful-restart>
        </isis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description IS-IS graceful restart options.

Contents <disable>—Disable graceful restart.

<helper-disable>—Disable graceful restart helper capability.

<restart-duration>—Maximum time for graceful restart to finish.

<graceful-restart> (configuration / routing-instances / instance / protocols / ldp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <graceful-restart>
            <disable/>
            <helper-disable/>
          </graceful-restart>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure graceful restart attributes.

Contents <disable>—Disable graceful restart.

<helper-disable>—Disable the graceful restart helper capability.

<graceful-restart> (configuration / routing-instances / instance / protocols / ospf)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <graceful-restart>
            <disable/>
            <restart-duration>seconds</restart-duration>
            <notify-duration>seconds</notify-duration>
            <helper-disable/>
          </graceful-restart>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure graceful restart attributes.

Contents <disable>—Disable OSPF graceful restart capability.

<helper-disable>—Disable graceful restart helper capability.

<notify-duration>—Time to send all max-aged grace LSAs.

<restart-duration>—Time for all neighbors to become full.

<graceful-restart> (configuration / routing-instances / instance / protocols / rip)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <graceful-restart>
            <disable/>
            <restart-time>restart-time</restart-time>
          </graceful-restart>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description RIP graceful restart options.

Contents <disable>—Disable graceful restart.

<restart-time>—Time after which RIP is declared out of restart.

<graceful-restart> (configuration / routing-instances / instance / routing-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <graceful-restart>
          <disable/>
          <path-selection-defer-time-limit>time-limit</path-selection-defer-time-limit>
        </graceful-restart>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Graceful or hitless routing restart options.

Contents <disable>—Disable graceful restart.

<path-selection-defer-time-limit>—Maximum time for which path selection is deferred.

<graceful-restart> (configuration / routing-options)

Usage

```
<configuration>
  <routing-options>
    <graceful-restart>
      <disable/>
      <path-selection-defer-time-limit>time-limit</path-selection-defer-time-limit>
    </graceful-restart>
  </routing-options>
</configuration>
```

Description Graceful or hitless routing restart options.

Contents <disable>—Disable graceful restart.

<path-selection-defer-time-limit>—Maximum time for which path selection is deferred.

<group> (configuration/protocols/bgp)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <name>name</name>     <!-- identifier -->
        <type>type-choice</type>
        <protocol>protocol-choice</protocol>
        <traceoptions>...</traceoptions>
        <description>description</description>
        <metric-out>...</metric-out>
        <multihop>...</multihop>
        <preference>preference</preference>
        <local-preference>local-preference</local-preference>
        <local-address>local-address</local-address>
        <local-interface>local-interface</local-interface>
        <hold-time>hold-time</hold-time>
        <passive/>
        <advertise-inactive/>
        <keep>keep-choice</keep>
        <no-aggregator-id/>
        <out-delay>out-delay</out-delay>
        <log-updown/>
        <damping/>
        <import>...</import>
        <family>...</family>
        <authentication-key>authentication-key</authentication-key>
        <export>...</export>
        <remove-private/>
        <cluster>cluster</cluster>
        <no-client-reflect/>
        <peer-as>peer-as</peer-as>
        <local-as>...</local-as>
        <ipsec-sa>ipsec-sa</ipsec-sa>
        <graceful-restart>...</graceful-restart>
        <multipath/>
        <as-override/>
        <allow>...</allow>
        <neighbor>...</neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Define a peer group.

Contents <advertise-inactive>—Advertise inactive routes.

<allow>—Configure peer connections for specific networks.

<as-override>—Replace neighbor AS number with our AS number.

<authentication-key>—MD5 authentication key.

<cluster>—Cluster identifier.

<damping>—Enable route flap damping.

<description>—Text description.

<export>—Export policy.

<family>—Protocol family for NLRIs in updates.

<graceful-restart>—BGP graceful restart options.

<hold-time>—Hold time used when negotiating with a peer.

<import>—Import policy.

<ipsec-sa>—IPSec SA name.

<keep>—How to retain routes in the routing table.

- all—Retain all routes.
- none—Retain no routes.

<local-address>—Address of local end of BGP session.

<local-as>—Local autonomous system number.

<local-interface>—Local interface for IPv6 link local EBGP peering.

<local-preference>—Value of LOCAL_PREF path attribute.

<log-updown>—Log a message for peer state transitions.

<metric-out>—Route metric sent in MED.

<multihop>—Configure an EBGP multihop session.

<multipath>—Allow load sharing among multiple BGP paths.

<name>—Group name.

<neighbor>—Configure a neighbor.

<no-aggregator-id>—Set router ID in aggregator path attribute to 0.

<no-client-reflect>—Disable intracluster route redistribution.

<out-delay>—How long before exporting routes from routing table.

<passive>—Do not send open messages to a peer.

<peer-as>—Peer autonomous system number.

<preference>—Preference value.

<protocol>—IGP to use to resolve the next hop.

- isis—Use IS-IS to resolve the BGP next hop.
- ospf—Use OSPF to resolve the BGP next hop.
- rip—Use RIP to resolve the BGP next hop.

<remove-private>—Remove well-known private AS numbers.

<traceoptions>—Trace options.

<type>—Type of peer group.

- external—EBGP group.
- internal—IBGP group.

<group> (configuration/protocols/igmp/interface/static)

Usage

```
<configuration>
  <protocols>
    <igmp>
      <interface>
        <static>
          <group>
            <name>name</name>     <!-- identifier -->
            <source>...</source>
          </group>
        </static>
      </interface>
    </igmp>
  </protocols>
</configuration>
```

Description IP multicast group address.

Contents <name>—IP multicast group address.

<source>—IP multicast source address.

<group> (configuration/protocols/mld/interface/static)

Usage

```
<configuration>
  <protocols>
    <mld>
      <interface>
        <static>
          <group>
            <name>name</name>     <!-- identifier -->
            <source>...</source>
          </group>
        </static>
      </interface>
    </mld>
  </protocols>
</configuration>
```

Description IP multicast group address.

Contents <name>—IP multicast group address.

<source>—IP multicast source address.

<group> (configuration/protocols/msdp)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <group>
        <name>name</name>     <!-- identifier -->
        <mode>mode-choice</mode>
        <disable/>
        <export>...</export>
        <import>...</import>
        <local-address>local-address</local-address>
        <traceoptions>...</traceoptions>
        <peer>...</peer>
      </group>
    </msdp>
  </protocols>
</configuration>
```

Description Configure MSDP peer groups.

Contents <disable>—Disable MSDP.

<export>—Export policy.

<import>—Import policy.

<local-address>—Local address.

<mode>—MSDP group source-active flooding mode.

- mesh-group—Group peers are mesh group members.
- standard—Use standard MSDP source-active flooding rules.

<name>—MSDP peer group name.

<peer>—Configure an MSDP peer.

<traceoptions>—Trace options for MSDP.

<group> (configuration/protocols/rip)

Usage

```
<configuration>
  <protocols>
    <rip>
      <group>
        <name>name</name>     <!-- identifier -->
        <preference>preference</preference>
        <metric-out>metric-out</metric-out>
        <export>...</export>
        <neighbor>...</neighbor>
      </group>
    </rip>
  </protocols>
</configuration>
```

Description Instance configuration.

Contents <export>—Export policy.

<metric-out>—Default metric of exported routes.

<name>—Group name.

<neighbor>—Neighbor configuration.

<preference>—Preference of routes learned by this group.

<group> (configuration/protocols/ripng)

Usage

```
<configuration>
  <protocols>
    <ripng>
      <group>
        <name>name</name>     <!-- identifier -->
        <preference>preference</preference>
        <metric-out>metric-out</metric-out>
        <export>...</export>
        <neighbor>...</neighbor>
      </group>
    </ripng>
  </protocols>
</configuration>
```

Description Instance configuration.

Contents <export>—Export policy.

<metric-out>—Default metric of exported routes.

<name>—Group name.

<neighbor>—Neighbor configuration.

<preference>—Preference of routes learned by this group.

<group> (configuration/routing-instances/instance/protocols/bgp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <name>name</name>     <!-- identifier -->
            <type>type-choice</type>
            <protocol>protocol-choice</protocol>
            <traceoptions>...</traceoptions>
            <description>description</description>
            <metric-out>...</metric-out>
            <multihop>...</multihop>
            <preference>preference</preference>
            <local-preference>local-preference</local-preference>
            <local-address>local-address</local-address>
            <local-interface>local-interface</local-interface>
            <hold-time>hold-time</hold-time>
            <passive/>
            <advertise-inactive/>
            <keep>keep-choice</keep>
            <no-aggregator-id/>
            <out-delay>out-delay</out-delay>
            <log-updown/>
            <damping/>
            <import>...</import>
            <family>...</family>
            <authentication-key>authentication-key</authentication-key>
            <export>...</export>
            <remove-private/>
            <cluster>cluster</cluster>
            <no-client-reflect/>
            <peer-as>peer-as</peer-as>
            <local-as>...</local-as>
            <ipsec-sa>ipsec-sa</ipsec-sa>
            <graceful-restart>...</graceful-restart>
            <multipath/>
            <as-override/>
            <allow>...</allow>
            <neighbor>...</neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Define a peer group.

Contents <advertise-inactive>—Advertise inactive routes.

<allow>—Configure peer connections for specific networks.

<as-override>—Replace neighbor AS number with our AS number.

<authentication-key>—MD5 authentication key.

<cluster>—Cluster identifier.

<damping>—Enable route flap damping.

<description>—Text description.

<export>—Export policy.

<family>—Protocol family for NLRIs in updates.

<graceful-restart>—BGP graceful restart options.

<hold-time>—Hold time used when negotiating with a peer.

<import>—Import policy.

<ipsec-sa>—IPSec SA name.

<keep>—How to retain routes in the routing table.

- all—Retain all routes.
- none—Retain no routes.

<local-address>—Address of local end of BGP session.

<local-as>—Local autonomous system number.

<local-interface>—Local interface for IPv6 link local EBGP peering.

<local-preference>—Value of LOCAL_PREF path attribute.

<log-updown>—Log a message for peer state transitions.

<metric-out>—Route metric sent in MED.

<multihop>—Configure an EBGP multihop session.

<multipath>—Allow load sharing among multiple BGP paths.

<name>—Group name.

<neighbor>—Configure a neighbor.

<no-aggregator-id>—Set router ID in aggregator path attribute to 0.

<no-client-reflect>—Disable intracluster route redistribution.

<out-delay>—How long before exporting routes from routing table.

<passive>—Do not send open messages to a peer.

<peer-as>—Peer autonomous system number.

<preference>—Preference value.

<protocol>—IGP to use to resolve the next hop.

- isis—Use IS-IS to resolve the BGP next hop.
- ospf—Use OSPF to resolve the BGP next hop.
- rip—Use RIP to resolve the BGP next hop.

<remove-private>—Remove well-known private AS numbers.

<traceoptions>—Trace options.

<type>—Type of peer group.

- external—EBGP group.
- internal—IBGP group.

<group> (configuration/routing-instances/instance/protocols/rip)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <group>
            <name>name</name>     <!-- identifier -->
            <preference>preference</preference>
            <metric-out>metric-out</metric-out>
            <export>...</export>
            <neighbor>...</neighbor>
          </group>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Instance configuration.

Contents <export>—Export policy.

<metric-out>—Default metric of exported routes.

<name>—Group name.

<neighbor>—Neighbor configuration.

<preference>—Preference of routes learned by this group.

<group> (configuration / routing-instances / instance / routing-options / fate-sharing)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <fate-sharing>
               <group>
                  <name>name</name>     <!-- identifier -->
                  <cost>cost</cost>
                  <from>...</from>
               </group>
            </fate-sharing>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Group of objects sharing common characteristics.

Contents <cost>—Cost value.

<from>—No documentation is available yet.

<name>—Name of object groups sharing the same fate.

<group> (configuration / routing-options / fate-sharing)

Usage

```
<configuration>
   <routing-options>
      <fate-sharing>
         <group>
            <name>name</name>     <!-- identifier -->
            <cost>cost</cost>
            <from>...</from>
         </group>
      </fate-sharing>
   </routing-options>
</configuration>
```

Description Group of objects sharing common characteristics.

Contents <cost>—Cost value.

<from>—No documentation is available yet.

<name>—Name of object groups sharing the same fate.

<group> (configuration/snmp/access)

Usage

```
<configuration>
  <snmp>
    <access>
      <group>
        <name>name</name>     <!-- identifier -->
        <user>...</user>
        <model>model-choice</model>
      </group>
    </access>
  </snmp>
</configuration>
```

Description SNMPv3 USM group information.

Contents <model>—SNMPv3 security model.

- usm—User-based security model.

<name>—SNMPv3 USM group name.

<user>—SNMPv3 USM username.

<group> (configuration/snmp/access/context)

Usage

```
<configuration>
  <snmp>
    <access>
      <context>
        <group>
          <name>name</name>     <!-- identifier -->
          <model>model-choice</model>
          <security-level>security-level-choice</security-level>
          <read-view>read-view</read-view>
          <write-view>write-view</write-view>
        </group>
      </context>
    </access>
  </snmp>
</configuration>
```

Description Access group.

Contents <model>—SNMPv3 security model.

- usm—User-based security model.

<name>—SNMPv3 USM group name.

<read-view>—Read view name.

<security-level>—SNMPv3 security level.

- authentication—Authentication: AuthNoPriv.
- none—None: NoAuthNoPriv.
- privacy—Privacy: AuthPriv.

<write-view>—Write view name.

<group-ranges> (configuration/protocols/pim/rp/local/family/inet)

Usage

```
<configuration>
  <protocols>
    <pim>
      <rp>
        <local>
          <family>
            <inet>
              <group-ranges>
                <name>name</name>     <!-- identifier -->
              </group-ranges>
            </inet>
          </family>
        </local>
      </rp>
    </pim>
  </protocols>
</configuration>
```

Description Group address range for which this router can be an RP.

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/protocols/pim/rp/local/family/inet6)

Usage

```
<configuration>
  <protocols>
    <pim>
      <rp>
        <local>
          <family>
            <inet6>
              <group-ranges>
                <name>name</name>     <!-- identifier -->
              </group-ranges>
            </inet6>
          </family>
        </local>
      </rp>
    </pim>
  </protocols>
</configuration>
```

Description Group address range for which this router can be an RP.

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/protocols/pim/rp/static/address)

Usage

```
<configuration>
  <protocols>
    <pim>
      <rp>
        <static>
          <address>
            <group-ranges>
              <name>name</name>     <!-- identifier -->
            </group-ranges>
          </address>
        </static>
      </rp>
    </pim>
  </protocols>
</configuration>
```

Description Group address range of RP.

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/routing-instances/instance/protocols/pim/rp/local/family/inet)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <protocols>
            <pim>
               <rp>
                  <local>
                     <family>
                        <inet>
                           <group-ranges>
                              <name>name</name>     <!-- identifier -->
                           </group-ranges>
                        </inet>
                     </family>
                  </local>
               </rp>
            </pim>
         </protocols>
      </instance>
   </routing-instances>
</configuration>
```

Description Group address range for which this router can be an RP.

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/routing-instances/instance/protocols/pim/rp/local/family/inet6)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <rp>
            <local>
              <family>
                <inet6>
                  <group-ranges>
                    <name>name</name>     <!-- identifier -->
                  </group-ranges>
                </inet6>
              </family>
            </local>
          </rp>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Group address range for which this router can be an RP.

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/routing-instances/instance/protocols/pim/rp/static/address)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <rp>
            <static>
              <address>
                <group-ranges>
                  <name>name</name>     <!-- identifier -->
                </group-ranges>
              </address>
            </static>
          </rp>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Group address range of RP.

Contents <name>—No documentation is available yet.

<groups> (configuration)

Usage

```
<configuration>
  <groups>
    <name>name</name>     <!-- identifier -->
  </groups>
</configuration>
```

Description Configuration groups.

Contents <name>—Group name.

<gtp> (configuration/services/ggsn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <gtp>
        <keepalive-interval>seconds</keepalive-interval>
        <t3-response-time>seconds</t3-response-time>
        <n3-requests>n3-requests</n3-requests>
        <diffserv>diffserv-choice</diffserv>
        <path-management/>
        <gn-routing-instance>...</gn-routing-instance>
        <sgsn-exception>...</sgsn-exception>
        <version-list>...</version-list>
        <bandwidth-constraint>...</bandwidth-constraint>
        <quality-of-service>...</quality-of-service>
      </gtp>
    </ggsn>
  </services>
</configuration>
```

Description Protocol settings for SGSN-GGSN GTP communication.

Contents <bandwidth-constraint>—SGSN-GGSN bandwidth constraints.

<diffserv>—Differentiated Services (DiffServ) code point (DSCP) canonical name.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.

- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- be—Best effort forwarding.
- ef—Expedited forwarding.

<gn-routing-instance>—Routing instance for Gn network.

<keepalive-interval>—Seconds between sending a keepalive message.

<n3-requests>—Retransmissions allowed for a control message.

<path-management>—Use path management.

<quality-of-service>—Gn interface quality-of-service mapping.

<sgsn-exception>—SGSNs requiring exceptional handling.

<t3-response-time>—Seconds between control message retries.

<version-list>—GTP version.

<gtp-prime> (configuration / services / ggsn / charging)

Usage

```
<configuration>
  <services>
    <ggsn>
      <charging>
        <gtp-prime>
          <keepalive-interval>seconds</keepalive-interval>
          <t3-response-time>seconds</t3-response-time>
          <n3-requests>n3-requests</n3-requests>
          <diffserv>diffserv-choice</diffserv>
          <path-management/>
          <version>version-choice</version>
        </gtp-prime>
      </charging>
    </ggsn>
  </services>
</configuration>
```

Description GTP Prime configuration.

Contents <diffserv>—Differentiated Services (DiffServ) code point (DSCP) canonical name.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.

- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- be—Best effort forwarding.
- ef—Expedited forwarding.

<keepalive-interval>—Seconds between sending a keepalive message.

<n3-requests>—Retransmissions allowed for a control message.

<path-management>—Use path management.

<t3-response-time>—Seconds between control message retries.

<version>—GTP Prime version.

- v0-20—Use GTP Prime version v0-20.
- v0-6—Use GTP Prime version v0-6.

<hash-key> (configuration/forwarding-options)

Usage

```
<configuration>
  <forwarding-options>
    <hash-key>
      <family>...</family>
    </hash-key>
  </forwarding-options>
</configuration>
```

Description Select data used in the hash key.

Contents <family>—Protocol family.

<helpers> (configuration/forwarding-options)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <traceoptions>...</traceoptions>
      <domain>...</domain>
      <tftp>...</tftp>
      <bootp>...</bootp>
      <port>...</port>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Port forwarding configuration.

Contents <bootp>—Incoming BOOTP/DHCP request forwarding configuration.

<domain>—Incoming DNS request forwarding configuration.

<port>—Incoming arbitrary protocol request forwarding configuration.

<tftp>—Incoming TFTP request forwarding configuration.

<traceoptions>—Trace options for helper.

<hold-time> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <hold-time>
        <up>milliseconds</up>     <!-- mandatory -->
        <down>milliseconds</down>     <!-- mandatory -->
      </hold-time>
    </interface>
  </interfaces>
</configuration>
```

Description Hold time for link up and link down.

Contents <down>—Link down hold time.

<up>—Link up hold time.

<host> (configuration/system/syslog)

Usage

```
<configuration>
  <system>
    <syslog>
      <host>
        <name>name</name>     <!-- identifier -->
        <contents>...</contents>
        <facility-override>facility-override-choice</facility-override>
        <log-prefix>log-prefix</log-prefix>
      </host>
    </syslog>
  </system>
</configuration>
```

Description

Host to be notified.

Contents

<contents>—No documentation is available yet.

<facility-override>—Use this facility code for all logging to this host.

- authorization—The authorization system.
- cron—The cron daemon.
- daemon—Various system daemons.
- ftp—The File Transfer Protocol daemon.
- kernel—Messages generated by the kernel.
- local0—Local logging option number 0.
- local1—Local logging option number 1.
- local2—Local logging option number 2.
- local3—Local logging option number 3.
- local4—Local logging option number 4.
- local5—Local logging option number 5.
- local6—Local logging option number 6.
- local7—Local logging option number 7.
- user—Messages from random user processes.

<log-prefix>—Prefix for all logging to this host.

<name>—Name of host to notify.

<hot-billing> (configuration/services/ggsn/charging/characteristics)

Usage

```
<configuration>
  <services>
    <ggsn>
      <charging>
        <characteristics>
          <hot-billing>
            <volume-limit>kilobytes</volume-limit>
            <time-limit>minutes</time-limit>
            <call-detail/>
            <change-limit>change-limit</change-limit>
          </hot-billing>
        </characteristics>
      </charging>
    </ggsn>
  </services>
</configuration>
```

Description Hot-billing clients.

Contents <call-detail>—Generate call detail records.

<change-limit>—Maximum record changes to buffer on PIC.

<time-limit>—Time to buffer charging data.

<volume-limit>—Volume of charging data to buffer.

<icmp-code> (configuration/firewall/family/inet/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <icmp-code>
                <name>name</name>     <!-- identifier -->
              </icmp-code>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match ICMP message code.

Contents <name>—No documentation is available yet.

- communication-prohibited-by-filtering—Communication prohibited by filtering.
- destination-host-prohibited—Destination host prohibited.

- destination-host-unknown—Destination host unknown.
- destination-network-prohibited—Destination network prohibited.
- destination-network-unknown—Destination network unknown.
- fragmentation-needed—Fragmentation needed.
- host-precedence-violation—Host precedence violation.
- host-unreachable—Host unreachable.
- host-unreachable-for-TOS—Host unreachable for TOS.
- ip-header-bad—IP header bad.
- name—Range of values.
- network-unreachable—Network unreachable.
- network-unreachable-for-TOS—Network unreachable for TOS.
- port-unreachable—Port unreachable.
- precedence-cutoff-in-effect—Precedence cutoff in effect.
- protocol-unreachable—Protocol unreachable.
- redirect-for-host—Redirect for host.
- redirect-for-network—Redirect for network.
- redirect-for-tos-and-host—Redirect for TOS and host.
- redirect-for-tos-and-net—Redirect for TOS and net.
- required-option-missing—Required option missing.
- source-host-isolated—Source host isolated.
- source-route-failed—Source route failed.
- ttl-eq-zero-during-reassembly—TTL eq zero during reassembly.
- ttl-eq-zero-during-transit—TTL eq zero during transit.

<icmp-code> (configuration / firewall / family / inet6 / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <icmp-code>
                <name>name</name>     <!-- identifier -->
              </icmp-code>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Match ICMP message code.

Contents <name>—No documentation is available yet.

- communication-prohibited-by-filtering—Communication prohibited by filtering.
- destination-host-prohibited—Destination host prohibited.
- destination-host-unknown—Destination host unknown.
- destination-network-prohibited—Destination network prohibited.
- destination-network-unknown—Destination network unknown.
- fragmentation-needed—Fragmentation needed.
- host-precedence-violation—Host precedence violation.
- host-unreachable—Host unreachable.
- host-unreachable-for-TOS—Host unreachable for TOS.
- ip-header-bad—IP header bad.
- name—Range of values.
- network-unreachable—Network unreachable.
- network-unreachable-for-TOS—Network unreachable for TOS.
- port-unreachable—Port unreachable.
- precedence-cutoff-in-effect—Precedence cutoff in effect.
- protocol-unreachable—Protocol unreachable.
- redirect-for-host—Redirect for host.

- redirect-for-network—Redirect for network.
- redirect-for-tos-and-host—Redirect for TOS and host.
- redirect-for-tos-and-net—Redirect for TOS and net.
- required-option-missing—Required option missing.
- source-host-isolated—Source host isolated.
- source-route-failed—Source route failed.
- ttl-eq-zero-during-reassembly—TTL eq zero during reassembly.
- ttl-eq-zero-during-transit—TTL eq zero during transit.

<icmp-code> (configuration/firewall/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <icmp-code>
            <name>name</name>     <!-- identifier -->
          </icmp-code>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match ICMP message code.

Contents <name>—No documentation is available yet.

- communication-prohibited-by-filtering—Communication prohibited by filtering.
- destination-host-prohibited—Destination host prohibited.
- destination-host-unknown—Destination host unknown.
- destination-network-prohibited—Destination network prohibited.
- destination-network-unknown—Destination network unknown.
- fragmentation-needed—Fragmentation needed.
- host-precedence-violation—Host precedence violation.
- host-unreachable—Host unreachable.
- host-unreachable-for-TOS—Host unreachable for TOS.
- ip-header-bad—IP header bad.

- name—Range of values.
- network-unreachable—Network unreachable.
- network-unreachable-for-TOS—Network unreachable for TOS.
- port-unreachable—Port unreachable.
- precedence-cutoff-in-effect—Precedence cutoff in effect.
- protocol-unreachable—Protocol unreachable.
- redirect-for-host—Redirect for host.
- redirect-for-network—Redirect for network.
- redirect-for-tos-and-host—Redirect for TOS and host.
- redirect-for-tos-and-net—Redirect for TOS and net.
- required-option-missing—Required option missing.
- source-host-isolated—Source host isolated.
- source-route-failed—Source route failed.
- ttl-eq-zero-during-reassembly—TTL eq zero during reassembly.
- ttl-eq-zero-during-transit—TTL eq zero during transit.

<icmp-code-except> (configuration/firewall/family/inet/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <icmp-code-except>
                <name>name</name>     <!-- identifier -->
              </icmp-code-except>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Do not match ICMP message code.

Contents <name>—No documentation is available yet.

- communication-prohibited-by-filtering—Communication prohibited by filtering.
- destination-host-prohibited—Destination host prohibited.
- destination-host-unknown—Destination host unknown.
- destination-network-prohibited—Destination network prohibited.
- destination-network-unknown—Destination network unknown.
- fragmentation-needed—Fragmentation needed.
- host-precedence-violation—Host precedence violation.
- host-unreachable—Host unreachable.
- host-unreachable-for-TOS—Host unreachable for TOS.
- ip-header-bad—IP header bad.
- name—Range of values.
- network-unreachable—Network unreachable.
- network-unreachable-for-TOS—Network unreachable for TOS.
- port-unreachable—Port unreachable.
- precedence-cutoff-in-effect—Precedence cutoff in effect.
- protocol-unreachable—Protocol unreachable.
- redirect-for-host—Redirect for host.
- redirect-for-network—Redirect for network.
- redirect-for-tos-and-host—Redirect for TOS and host.
- redirect-for-tos-and-net—Redirect for TOS and net.
- required-option-missing—Required option missing.
- source-host-isolated—Source host isolated.
- source-route-failed—Source route failed.
- ttl-eq-zero-during-reassembly—TTL eq zero during reassembly.
- ttl-eq-zero-during-transit—TTL eq zero during transit.

<icmp-code-except> (configuration / firewall / family / inet6 / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <icmp-code-except>
                <name>name</name>     <!-- identifier -->
              </icmp-code-except>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Do not match ICMP message code.

Contents <name>—No documentation is available yet.

- communication-prohibited-by-filtering—Communication prohibited by filtering.
- destination-host-prohibited—Destination host prohibited.
- destination-host-unknown—Destination host unknown.
- destination-network-prohibited—Destination network prohibited.
- destination-network-unknown—Destination network unknown.
- fragmentation-needed—Fragmentation needed.
- host-precedence-violation—Host precedence violation.
- host-unreachable—Host unreachable.
- host-unreachable-for-TOS—Host unreachable for TOS.
- ip-header-bad—IP header bad.
- name—Range of values.
- network-unreachable—Network unreachable.
- network-unreachable-for-TOS—Network unreachable for TOS.
- port-unreachable—Port unreachable.
- precedence-cutoff-in-effect—Precedence cutoff in effect.
- protocol-unreachable—Protocol unreachable.
- redirect-for-host—Redirect for host.

- redirect-for-network—Redirect for network.
- redirect-for-tos-and-host—Redirect for TOS and host.
- redirect-for-tos-and-net—Redirect for TOS and net.
- required-option-missing—Required option missing.
- source-host-isolated—Source host isolated.
- source-route-failed—Source route failed.
- ttl-eq-zero-during-reassembly—TTL eq zero during reassembly.
- ttl-eq-zero-during-transit—TTL eq zero during transit.

<icmp-code-except> (configuration/firewall/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <icmp-code-except>
            <name>name</name>     <!-- identifier -->
          </icmp-code-except>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Do not match ICMP message code.

Contents <name>—No documentation is available yet.

- communication-prohibited-by-filtering—Communication prohibited by filtering.
- destination-host-prohibited—Destination host prohibited.
- destination-host-unknown—Destination host unknown.
- destination-network-prohibited—Destination network prohibited.
- destination-network-unknown—Destination network unknown.
- fragmentation-needed—Fragmentation needed.
- host-precedence-violation—Host precedence violation.
- host-unreachable—Host unreachable.
- host-unreachable-for-TOS—Host unreachable for TOS.
- ip-header-bad—IP header bad.

- name—Range of values.
- network-unreachable—Network unreachable.
- network-unreachable-for-TOS—Network unreachable for TOS.
- port-unreachable—Port unreachable.
- precedence-cutoff-in-effect—Precedence cutoff in effect.
- protocol-unreachable—Protocol unreachable.
- redirect-for-host—Redirect for host.
- redirect-for-network—Redirect for network.
- redirect-for-tos-and-host—Redirect for TOS and host.
- redirect-for-tos-and-net—Redirect for TOS and net.
- required-option-missing—Required option missing.
- source-host-isolated—Source host isolated.
- source-route-failed—Source route failed.
- ttl-eq-zero-during-reassembly—TTL eq zero during reassembly.
- ttl-eq-zero-during-transit—TTL eq zero during transit.

<icmp-type> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <icmp-type>
                <name>name</name>     <!-- identifier -->
              </icmp-type>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match ICMP message type.

Contents <name>—No documentation is available yet.

- echo-reply—Echo reply.
- echo-request—Echo request.
- info-reply—Information reply.
- info-request—Information request.
- mask-reply—Mask reply.
- mask-request—Mask request.
- name—Range of values.
- parameter-problem—Parameter problem.
- redirect—Redirect.
- router-advertisement—Router advertisement.
- router-solicit—Router solicit.
- source-quench—Source quench.
- time-exceeded—Time exceeded.
- timestamp—Timestamp.
- timestamp-reply—Timestamp reply.
- unreachable—Unreachable.

<icmp-type> (configuration/firewall/family/inet6/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <icmp-type>
                <name>name</name>     <!-- identifier -->
              </icmp-type>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Match ICMP message type.

Contents <name>—No documentation is available yet.

- echo-reply—Echo reply.
- echo-request—Echo request.
- info-reply—Information reply.
- info-request—Information request.
- mask-reply—Mask reply.
- mask-request—Mask request.
- name—Range of values.
- parameter-problem—Parameter problem.
- redirect—Redirect.
- router-advertisement—Router advertisement.
- router-solicit—Router solicit.
- source-quench—Source quench.
- time-exceeded—Time exceeded.
- timestamp—Timestamp.
- timestamp-reply—Timestamp reply.
- unreachable—Unreachable.

<icmp-type> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <icmp-type>
            <name>name</name>     <!-- identifier -->
          </icmp-type>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match ICMP message type.

Contents <name>—No documentation is available yet.

- echo-reply—Echo reply.
- echo-request—Echo request.
- info-reply—Information reply.
- info-request—Information request.
- mask-reply—Mask reply.
- mask-request—Mask request.
- name—Range of values.
- parameter-problem—Parameter problem.
- redirect—Redirect.
- router-advertisement—Router advertisement.
- router-solicit—Router solicit.
- source-quench—Source quench.
- time-exceeded—Time exceeded.
- timestamp—Timestamp.
- timestamp-reply—Timestamp reply.
- unreachable—Unreachable.

<icmp-type-except> (configuration/firewall/family/inet/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <icmp-type-except>
                <name>name</name>     <!-- identifier -->
              </icmp-type-except>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Do not match ICMP message type.

Contents <name>—No documentation is available yet.

- echo-reply—Echo reply.
- echo-request—Echo request.
- info-reply—Information reply.
- info-request—Information request.
- mask-reply—Mask reply.
- mask-request—Mask request.
- name—Range of values.
- parameter-problem—Parameter problem.
- redirect—Redirect.
- router-advertisement—Router advertisement.
- router-solicit—Router solicit.
- source-quench—Source quench.
- time-exceeded—Time exceeded.
- timestamp—Timestamp.
- timestamp-reply—Timestamp reply.
- unreachable—Unreachable.

<icmp-type-except> (configuration/firewall/family/inet6/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <icmp-type-except>
                <name>name</name>     <!-- identifier -->
              </icmp-type-except>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Do not match ICMP message type.

Contents <name>—No documentation is available yet.

- echo-reply—Echo reply.
- echo-request—Echo request.
- info-reply—Information reply.
- info-request—Information request.
- mask-reply—Mask reply.
- mask-request—Mask request.
- name—Range of values.
- parameter-problem—Parameter problem.
- redirect—Redirect.
- router-advertisement—Router advertisement.
- router-solicit—Router solicit.
- source-quench—Source quench.
- time-exceeded—Time exceeded.
- timestamp—Timestamp.
- timestamp-reply—Timestamp reply.
- unreachable—Unreachable.

<icmp-type-except> (configuration/firewall/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <icmp-type-except>
            <name>name</name>     <!-- identifier -->
          </icmp-type-except>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Do not match ICMP message type.

Contents <name>—No documentation is available yet.

- echo-reply—Echo reply.
- echo-request—Echo request.
- info-reply—Information reply.
- info-request—Information request.
- mask-reply—Mask reply.
- mask-request—Mask request.
- name—Range of values.
- parameter-problem—Parameter problem.
- redirect—Redirect.
- router-advertisement—Router advertisement.
- router-solicit—Router solicit.
- source-quench—Source quench.
- time-exceeded—Time exceeded.
- timestamp—Timestamp.
- timestamp-reply—Timestamp reply.
- unreachable—Unreachable.

<idle-cell-format> (configuration/chassis/fpc/pic)

Usage

```
<configuration>
  <chassis>
    <fpc>
      <pic>
        <idle-cell-format>
          <itu-t/>
          <payload-pattern>payload-pattern</payload-pattern>
        </idle-cell-format>
      </pic>
    </fpc>
  </chassis>
</configuration>
```

Description ATM Idle cell configuration.

Contents <itu-t>—ITU-T idle cell header format.

<payload-pattern>—Payload pattern byte (0x00-0xff).

<idle-timeout> (configuration/protocols/bgp/family/inet/any/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <any>
            <prefix-limit>
              <teardown>
                <idle-timeout>
                  <forever/>
                  <timeout>timeout</timeout>
                </idle-timeout>
              </teardown>
            </prefix-limit>
          </any>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/family/inet/labeled-unicast/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <labeled-unicast>
            <prefix-limit>
              <teardown>
                <idle-timeout>
                  <forever/>
                  <timeout>timeout</timeout>
                </idle-timeout>
              </teardown>
            </prefix-limit>
          </labeled-unicast>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/family/inet/multicast/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <multicast>
            <prefix-limit>
              <teardown>
                <idle-timeout>
                  <forever/>
                  <timeout>timeout</timeout>
                </idle-timeout>
              </teardown>
            </prefix-limit>
          </multicast>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/family/inet/unicast/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <unicast>
            <prefix-limit>
              <teardown>
                <idle-timeout>
                  <forever/>
                  <timeout>timeout</timeout>
                </idle-timeout>
              </teardown>
            </prefix-limit>
          </unicast>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/family/inet-vpn/any/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet-vpn>
          <any>
            <prefix-limit>
              <teardown>
                <idle-timeout>
                  <forever/>
                  <timeout>timeout</timeout>
                </idle-timeout>
              </teardown>
            </prefix-limit>
          </any>
        </inet-vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/family/inet-vpn/multicast/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet-vpn>
          <multicast>
            <prefix-limit>
              <teardown>
                <idle-timeout>
                  <forever/>
                  <timeout>timeout</timeout>
                </idle-timeout>
              </teardown>
            </prefix-limit>
          </multicast>
        </inet-vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/family/inet-vpn/unicast/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet-vpn>
          <unicast>
            <prefix-limit>
              <teardown>
                <idle-timeout>
                  <forever/>
                  <timeout>timeout</timeout>
                </idle-timeout>
              </teardown>
            </prefix-limit>
          </unicast>
        </inet-vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/family/inet6/any/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <any>
            <prefix-limit>
              <teardown>
                <idle-timeout>
                  <forever/>
                  <timeout>timeout</timeout>
                </idle-timeout>
              </teardown>
            </prefix-limit>
          </any>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/family/inet6/labeled-unicast/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <labeled-unicast>
            <prefix-limit>
              <teardown>
                <idle-timeout>
                  <forever/>
                  <timeout>timeout</timeout>
                </idle-timeout>
              </teardown>
            </prefix-limit>
          </labeled-unicast>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/family/inet6/multicast/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <multicast>
            <prefix-limit>
              <teardown>
                <idle-timeout>
                  <forever/>
                  <timeout>timeout</timeout>
                </idle-timeout>
              </teardown>
            </prefix-limit>
          </multicast>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/family/inet6/unicast/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <unicast>
            <prefix-limit>
              <teardown>
                <idle-timeout>
                  <forever/>
                  <timeout>timeout</timeout>
                </idle-timeout>
              </teardown>
            </prefix-limit>
          </unicast>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/family/l2vpn/unicast/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <l2vpn>
          <unicast>
            <prefix-limit>
              <teardown>
                <idle-timeout>
                  <forever/>
                  <timeout>timeout</timeout>
                </idle-timeout>
              </teardown>
            </prefix-limit>
          </unicast>
        </l2vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/group/family/inet/any/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <any>
              <prefix-limit>
                <teardown>
                  <idle-timeout>
                    <forever/>
                    <timeout>timeout</timeout>
                  </idle-timeout>
                </teardown>
              </prefix-limit>
            </any>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/group/family/inet/labeled-unicast/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <labeled-unicast>
              <prefix-limit>
                <teardown>
                  <idle-timeout>
                    <forever/>
                    <timeout>timeout</timeout>
                  </idle-timeout>
                </teardown>
              </prefix-limit>
            </labeled-unicast>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/group/family/inet/multicast/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <multicast>
              <prefix-limit>
                <teardown>
                  <idle-timeout>
                    <forever/>
                    <timeout>timeout</timeout>
                  </idle-timeout>
                </teardown>
              </prefix-limit>
            </multicast>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/group/family/inet/unicast/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <unicast>
              <prefix-limit>
                <teardown>
                  <idle-timeout>
                    <forever/>
                    <timeout>timeout</timeout>
                  </idle-timeout>
                </teardown>
              </prefix-limit>
            </unicast>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/group/family/inet-vpn/any/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet-vpn>
            <any>
              <prefix-limit>
                <teardown>
                  <idle-timeout>
                    <forever/>
                    <timeout>timeout</timeout>
                  </idle-timeout>
                </teardown>
              </prefix-limit>
            </any>
          </inet-vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/group/family/inet-vpn/multicast/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet-vpn>
            <multicast>
              <prefix-limit>
                <teardown>
                  <idle-timeout>
                    <forever/>
                    <timeout>timeout</timeout>
                  </idle-timeout>
                </teardown>
              </prefix-limit>
            </multicast>
          </inet-vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/group/family/inet-vpn/unicast/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet-vpn>
            <unicast>
              <prefix-limit>
                <teardown>
                  <idle-timeout>
                    <forever/>
                    <timeout>timeout</timeout>
                  </idle-timeout>
                </teardown>
              </prefix-limit>
            </unicast>
          </inet-vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/group/family/inet6/any/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <any>
              <prefix-limit>
                <teardown>
                  <idle-timeout>
                    <forever/>
                    <timeout>timeout</timeout>
                  </idle-timeout>
                </teardown>
              </prefix-limit>
            </any>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / protocols / bgp / group / family / inet6 / labeled-unicast / prefix-limit / teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <labeled-unicast>
              <prefix-limit>
                <teardown>
                  <idle-timeout>
                    <forever/>
                    <timeout>timeout</timeout>
                  </idle-timeout>
                </teardown>
              </prefix-limit>
            </labeled-unicast>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/group/family/inet6/multicast/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <multicast>
              <prefix-limit>
                <teardown>
                  <idle-timeout>
                    <forever/>
                    <timeout>timeout</timeout>
                  </idle-timeout>
                </teardown>
              </prefix-limit>
            </multicast>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/group/family/inet6/unicast/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <unicast>
              <prefix-limit>
                <teardown>
                  <idle-timeout>
                    <forever/>
                    <timeout>timeout</timeout>
                  </idle-timeout>
                </teardown>
              </prefix-limit>
            </unicast>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/group/family/l2vpn/unicast/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <l2vpn>
            <unicast>
              <prefix-limit>
                <teardown>
                  <idle-timeout>
                    <forever/>
                    <timeout>timeout</timeout>
                  </idle-timeout>
                </teardown>
              </prefix-limit>
            </unicast>
          </l2vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/group/neighbor/family/inet/any/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <any>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </any>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / protocols / bgp / group / neighbor / family / inet / labeled-unicast / prefix-limit / teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <labeled-unicast>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </labeled-unicast>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/group/neighbor/family/inet/multicast/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <multicast>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </multicast>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / protocols / bgp / group / neighbor / family / inet / unicast / prefix-limit / teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <unicast>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </unicast>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/group/neighbor/family/inet-vpn/any/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet-vpn>
              <any>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </any>
            </inet-vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / protocols / bgp / group / neighbor / family / inet-vpn / multicast / prefix-limit / teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet-vpn>
              <multicast>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </multicast>
            </inet-vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / protocols / bgp / group / neighbor / family / inet-vpn / unicast / prefix-limit / teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet-vpn>
              <unicast>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </unicast>
            </inet-vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / protocols / bgp / group / neighbor / family / inet6 / any / prefix-limit / teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <any>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </any>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / protocols / bgp / group / neighbor / family / inet6 / labeled-unicast / prefix-limit / teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <labeled-unicast>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </labeled-unicast>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/protocols/bgp/group/neighbor/family/inet6/multicast/prefix-limit/teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <multicast>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </multicast>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / protocols / bgp / group / neighbor / family / inet6 / unicast / prefix-limit / teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <unicast>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </unicast>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / protocols / bgp / group / neighbor / family / l2vpn / unicast / prefix-limit / teardown)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <l2vpn>
              <unicast>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </unicast>
            </l2vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/routing-instances/instance/protocols/bgp/family/inet/any/prefix-limit/teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <any>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </any>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/routing-instances/instance/protocols/bgp/family/inet/labeled-unicast/prefix-limit/teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <labeled-unicast>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </labeled-unicast>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/routing-instances/instance/protocols/bgp/family/inet/multicast/prefix-limit/teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <multicast>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </multicast>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / family / inet / unicast / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <unicast>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </unicast>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/routing-instances/instance/protocols/bgp/family/inet-vpn/any/prefix-limit/teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet-vpn>
              <any>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </any>
            </inet-vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/routing-instances/instance/protocols/bgp/family/inet-vpn/multicast/prefix-limit/teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet-vpn>
              <multicast>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </multicast>
            </inet-vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/routing-instances/instance/protocols/bgp/family/inet-vpn/unicast/prefix-limit/teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet-vpn>
              <unicast>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </unicast>
            </inet-vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/routing-instances/instance/protocols/bgp/family/inet6/any/prefix-limit/teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <any>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </any>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / family / inet6 / labeled-unicast / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <labeled-unicast>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </labeled-unicast>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/routing-instances/instance/protocols/bgp/family/inet6/multicast/prefix-limit/teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <multicast>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </multicast>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/routing-instances/instance/protocols/bgp/family/inet6/unicast/prefix-limit/teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <unicast>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </unicast>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/routing-instances/instance/protocols/bgp/family/l2vpn/unicast/prefix-limit/teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <l2vpn>
              <unicast>
                <prefix-limit>
                  <teardown>
                    <idle-timeout>
                      <forever/>
                      <timeout>timeout</timeout>
                    </idle-timeout>
                  </teardown>
                </prefix-limit>
              </unicast>
            </l2vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/routing-instances/instance/protocols/bgp/group/family/inet/any/prefix-limit/teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <any>
                  <prefix-limit>
                    <teardown>
                      <idle-timeout>
                        <forever/>
                        <timeout>timeout</timeout>
                      </idle-timeout>
                    </teardown>
                  </prefix-limit>
                </any>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/routing-instances/instance/protocols/bgp/group/family/inet/labeled-unicast/prefix-limit/teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <labeled-unicast>
                  <prefix-limit>
                    <teardown>
                      <idle-timeout>
                        <forever/>
                        <timeout>timeout</timeout>
                      </idle-timeout>
                    </teardown>
                  </prefix-limit>
                </labeled-unicast>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / family / inet / multicast / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <multicast>
                  <prefix-limit>
                    <teardown>
                      <idle-timeout>
                        <forever/>
                        <timeout>timeout</timeout>
                      </idle-timeout>
                    </teardown>
                  </prefix-limit>
                </multicast>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / family / inet / unicast / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <unicast>
                  <prefix-limit>
                    <teardown>
                      <idle-timeout>
                        <forever/>
                        <timeout>timeout</timeout>
                      </idle-timeout>
                    </teardown>
                  </prefix-limit>
                </unicast>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / family / inet-vpn / any / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet-vpn>
                <any>
                  <prefix-limit>
                    <teardown>
                      <idle-timeout>
                        <forever/>
                        <timeout>timeout</timeout>
                      </idle-timeout>
                    </teardown>
                  </prefix-limit>
                </any>
              </inet-vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / family / inet-vpn / multicast / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet-vpn>
                <multicast>
                  <prefix-limit>
                    <teardown>
                      <idle-timeout>
                        <forever/>
                        <timeout>timeout</timeout>
                      </idle-timeout>
                    </teardown>
                  </prefix-limit>
                </multicast>
              </inet-vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / family / inet-vpn / unicast / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet-vpn>
                <unicast>
                  <prefix-limit>
                    <teardown>
                      <idle-timeout>
                        <forever/>
                        <timeout>timeout</timeout>
                      </idle-timeout>
                    </teardown>
                  </prefix-limit>
                </unicast>
              </inet-vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / family / inet6 / any / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet6>
                <any>
                  <prefix-limit>
                    <teardown>
                      <idle-timeout>
                        <forever/>
                        <timeout>timeout</timeout>
                      </idle-timeout>
                    </teardown>
                  </prefix-limit>
                </any>
              </inet6>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / family / inet6 / labeled-unicast / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet6>
                <labeled-unicast>
                  <prefix-limit>
                    <teardown>
                      <idle-timeout>
                        <forever/>
                        <timeout>timeout</timeout>
                      </idle-timeout>
                    </teardown>
                  </prefix-limit>
                </labeled-unicast>
              </inet6>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / family / inet6 / multicast / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet6>
                <multicast>
                  <prefix-limit>
                    <teardown>
                      <idle-timeout>
                        <forever/>
                        <timeout>timeout</timeout>
                      </idle-timeout>
                    </teardown>
                  </prefix-limit>
                </multicast>
              </inet6>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / family / inet6 / unicast / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet6>
                <unicast>
                  <prefix-limit>
                    <teardown>
                      <idle-timeout>
                        <forever/>
                        <timeout>timeout</timeout>
                      </idle-timeout>
                    </teardown>
                  </prefix-limit>
                </unicast>
              </inet6>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/routing-instances/instance/protocols/bgp/group/family/l2vpn/unicast/prefix-limit/teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <l2vpn>
                <unicast>
                  <prefix-limit>
                    <teardown>
                      <idle-timeout>
                        <forever/>
                        <timeout>timeout</timeout>
                      </idle-timeout>
                    </teardown>
                  </prefix-limit>
                </unicast>
              </l2vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet / any / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <any>
                    <prefix-limit>
                      <teardown>
                        <idle-timeout>
                          <forever/>
                          <timeout>timeout</timeout>
                        </idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </any>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet / labeled-unicast / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <labeled-unicast>
                    <prefix-limit>
                      <teardown>
                        <idle-timeout>
                          <forever/>
                          <timeout>timeout</timeout>
                        </idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </labeled-unicast>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet / multicast / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <multicast>
                    <prefix-limit>
                      <teardown>
                        <idle-timeout>
                          <forever/>
                          <timeout>timeout</timeout>
                        </idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </multicast>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet / unicast / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <unicast>
                    <prefix-limit>
                      <teardown>
                        <idle-timeout>
                          <forever/>
                          <timeout>timeout</timeout>
                        </idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </unicast>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet-vpn / any / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet-vpn>
                  <any>
                    <prefix-limit>
                      <teardown>
                        <idle-timeout>
                          <forever/>
                          <timeout>timeout</timeout>
                        </idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </any>
                </inet-vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet-vpn / multicast / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet-vpn>
                  <multicast>
                    <prefix-limit>
                      <teardown>
                        <idle-timeout>
                          <forever/>
                          <timeout>timeout</timeout>
                        </idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </multicast>
                </inet-vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet-vpn / unicast / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet-vpn>
                  <unicast>
                    <prefix-limit>
                      <teardown>
                        <idle-timeout>
                          <forever/>
                          <timeout>timeout</timeout>
                        </idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </unicast>
                </inet-vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet6/any/prefix-limit/teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <any>
                    <prefix-limit>
                      <teardown>
                        <idle-timeout>
                          <forever/>
                          <timeout>timeout</timeout>
                        </idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </any>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet6 / labeled-unicast / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <labeled-unicast>
                    <prefix-limit>
                      <teardown>
                        <idle-timeout>
                          <forever/>
                          <timeout>timeout</timeout>
                        </idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </labeled-unicast>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet6 / multicast / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <multicast>
                    <prefix-limit>
                      <teardown>
                        <idle-timeout>
                          <forever/>
                          <timeout>timeout</timeout>
                        </idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </multicast>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet6 / unicast / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <unicast>
                    <prefix-limit>
                      <teardown>
                        <idle-timeout>
                          <forever/>
                          <timeout>timeout</timeout>
                        </idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </unicast>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<idle-timeout> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / l2vpn / unicast / prefix-limit / teardown)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <l2vpn>
                  <unicast>
                    <prefix-limit>
                      <teardown>
                        <idle-timeout>
                          <forever/>
                          <timeout>timeout</timeout>
                        </idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </unicast>
                </l2vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Timeout before attempting to restart peer.

Contents <forever>—Idle the peer until the user intervenes.

<timeout>—Timeout value, in minutes, for restarting peer.

<ieee-802.1> (configuration / class-of-service / classifiers)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <ieee-802.1>
        <name>name</name>     <!-- identifier -->
        <import>import</import>
        <forwarding-class>...</forwarding-class>
      </ieee-802.1>
    </classifiers>
  </class-of-service>
</configuration>
```

Description IEEE-802.1 classifier.

Contents <forwarding-class>—Define a classification of code point aliases.

<import>—Include this classifier in this definition.

<name>—Classifier name.

<ieee-802.1> (configuration / class-of-service / interfaces / unit / classifiers)

Usage

```
<configuration>
  <class-of-service>
    <interfaces>
      <unit>
        <classifiers>
          <ieee-802.1>
            <classifier-name>classifier-name</classifier-name>
          </ieee-802.1>
        </classifiers>
      </unit>
    </interfaces>
  </class-of-service>
</configuration>
```

Description IEEE-802.1 classifier.

Contents <classifier-name>—Name of classifier to be applied.

<ieee-802.1> (configuration / class-of-service / code-point-aliases)

Usage

```
<configuration>
  <class-of-service>
    <code-point-aliases>
      <ieee-802.1>
        <name>name</name>     <!-- identifier -->
        <bits>bits</bits>     <!-- mandatory -->
      </ieee-802.1>
    </code-point-aliases>
  </class-of-service>
</configuration>
```

Description IEEE-802.1 code point aliases.

Contents <bits>—IEEE-802.1 3-bit pattern.

<name>—IEEE-802.1 alias name.

<ieee-802.1> (configuration / class-of-service / interfaces / unit / rewrite-rules)

Usage

```
<configuration>
  <class-of-service>
    <interfaces>
      <unit>
        <rewrite-rules>
          <ieee-802.1>
            <default/>
          </ieee-802.1>
        </rewrite-rules>
      </unit>
    </interfaces>
  </class-of-service>
</configuration>
```

Description IEEE-802.1 rewrite rule.

Contents <default>—Apply default rewrite rule.

<if-exceeding> (configuration / firewall / policer)

Usage

```
<configuration>
  <firewall>
    <policer>
      <if-exceeding>
        <bandwidth-limit>bits per second</bandwidth-limit>     <!-- mandatory -->
        <burst-size-limit>bytes</burst-size-limit>     <!-- mandatory -->
      </if-exceeding>
    </policer>
  </firewall>
</configuration>
```

Description Define rate limits.

Contents <bandwidth-limit>—Bandwidth limit.

<burst-size-limit>—Burst size limit.

<igmp> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <igmp>
      <traceoptions>...</traceoptions>
      <query-interval>seconds</query-interval>
      <query-response-interval>seconds</query-response-interval>
      <query-last-member-interval>seconds</query-last-member-interval>
      <robust-count>robust-count</robust-count>
      <interface>...</interface>
    </igmp>
  </protocols>
</configuration>
```

Description IGMP options.

Contents <interface>—Interface options for IGMP.

<query-interval>—When to send host query messages.

<query-last-member-interval>—When to send group query messages.

<query-response-interval>—How long to wait for a host query response.

<robust-count>—Expected packet loss on a subnet.

<traceoptions>—Trace options for IGMP.

<igp> (configuration/policy-options/policy-statement/from/route-filter/metric)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <metric>
            <igp>
              <metric_offset>metric_offset</metric_offset>
            </igp>
          </metric>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Track the IGP metric (BGP only).

Contents <metric_offset>—Metric offset for MED.

<igp> (configuration/policy-options/policy-statement/from/source-address-filter/metric)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <metric>
            <igp>
              <metric_offset>metric_offset</metric_offset>
            </igp>
          </metric>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Track the IGP metric (BGP only).

Contents <metric_offset>—Metric offset for MED.

<igp> (configuration/policy-options/policy-statement/term/from/route-filter/metric)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <metric>
              <igp>
                <metric_offset>metric_offset</metric_offset>
              </igp>
            </metric>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Track the IGP metric (BGP only).

Contents <metric_offset>—Metric offset for MED.

<igp> (configuration / policy-options / policy-statement / term / from / source-address-filter / metric)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <metric>
              <igp>
                <metric_offset>metric_offset</metric_offset>
              </igp>
            </metric>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Track the IGP metric (BGP only).

Contents <metric_offset>—Metric offset for MED.

<igp> (configuration / policy-options / policy-statement / term / then / metric)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <metric>
            <igp>
              <metric_offset>metric_offset</metric_offset>
            </igp>
          </metric>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Track the IGP metric (BGP only).

Contents <metric_offset>—Metric offset for MED.

<igp> (configuration/policy-options/policy-statement/then/metric)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <then>
        <metric>
          <igp>
            <metric_offset>metric_offset</metric_offset>
          </igp>
        </metric>
      </then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Track the IGP metric (BGP only).

Contents <metric_offset>—Metric offset for MED.

<igp> (configuration/protocols/bgp/group/metric-out)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <metric-out>
          <igp>
            <metric-offset>metric-offset</metric-offset>
          </igp>
        </metric-out>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Track the IGP metric.

Contents <metric-offset>—Metric offset for MED.

<igp> (configuration/protocols/bgp/group/neighbor/metric-out)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <metric-out>
            <igp>
              <metric-offset>metric-offset</metric-offset>
            </igp>
          </metric-out>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Track the IGP metric.

Contents <metric-offset>—Metric offset for MED.

<igp> (configuration/protocols/bgp/metric-out)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <metric-out>
        <igp>
          <metric-offset>metric-offset</metric-offset>
        </igp>
      </metric-out>
    </bgp>
  </protocols>
</configuration>
```

Description Track the IGP metric.

Contents <metric-offset>—Metric offset for MED.

<igp> (configuration/routing-instances/instance/protocols/bgp/group/metric-out)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <metric-out>
              <igp>
                <metric-offset>metric-offset</metric-offset>
              </igp>
            </metric-out>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Track the IGP metric.

Contents <metric-offset>—Metric offset for MED.

<igp> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/metric-out)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <metric-out>
                <igp>
                  <metric-offset>metric-offset</metric-offset>
                </igp>
              </metric-out>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Track the IGP metric.

Contents <metric-offset>—Metric offset for MED.

<igp> (configuration/routing-instances/instance/protocols/bgp/metric-out)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <metric-out>
            <igp>
              <metric-offset>metric-offset</metric-offset>
            </igp>
          </metric-out>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Track the IGP metric.

Contents <metric-offset>—Metric offset for MED.

<ike> (configuration/security)

Usage

```
<configuration>
  <security>
    <ike>
      <authentication-method>authentication-method-choice</authentication-method>
      <dh-group>dh-group-choice</dh-group>
      <authentication-algorithm>authentication-algorithm</authentication-algorithm>
      <encryption-algorithm>encryption-algorithm-choice</encryption-algorithm>
      <lifetime-seconds>seconds</lifetime-seconds>
      <proposal>...</proposal>
      <policy>...</policy>
    </ike>
  </security>
</configuration>
```

Description IKE configuration.

Contents <authentication-algorithm>—Define authentication algorithm.

- md5—MD5 authentication algorithm.
- sha1—SHA1 authentication algorithm.

<authentication-method>—Define authentication method.

- pre-shared-keys—Preshared keys.

<dh-group>—Define Diffie-Hellman group.

- group1—Diffie-Hellman Group1.
- group2—Diffie-Hellman Group2.

<encryption-algorithm>—Define encryption algorithm.

- 3des-cbc—3DES-CBC encryption algorithm.
- des-cbc—DES-CBC encryption algorithm.

<lifetime-seconds>—Lifetime, in seconds.

<policy>—Define an IKE policy.

<proposal>—Define an IKE proposal for a dynamic SA.

<import> (configuration/protocols/bgp)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <import>
        <name>name</name>     <!-- identifier -->
      </import>
    </bgp>
  </protocols>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/protocols/bgp/group)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <import>
          <name>name</name>     <!-- identifier -->
        </import>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/protocols/bgp/group/neighbor)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <import>
            <name>name</name>     <!-- identifier -->
          </import>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/protocols/dvmrp)

Usage

```
<configuration>
  <protocols>
    <dvmrp>
      <import>
        <name>name</name>     <!-- identifier -->
      </import>
    </dvmrp>
  </protocols>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/protocols/ldp)

Usage

```
<configuration>
  <protocols>
    <ldp>
      <import>
        <name>name</name>     <!-- identifier -->
      </import>
    </ldp>
  </protocols>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/protocols/msdp)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <import>
        <name>name</name>     <!-- identifier -->
      </import>
    </msdp>
  </protocols>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/protocols/msdp/group)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <group>
        <import>
          <name>name</name>     <!-- identifier -->
        </import>
      </group>
    </msdp>
  </protocols>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/protocols/msdp/group/peer)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <group>
        <peer>
          <import>
            <name>name</name>     <!-- identifier -->
          </import>
        </peer>
      </group>
    </msdp>
  </protocols>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/protocols/msdp/peer)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <peer>
        <import>
          <name>name</name>     <!-- identifier -->
        </import>
      </peer>
    </msdp>
  </protocols>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/protocols/pim)

Usage

```
<configuration>
  <protocols>
    <pim>
      <import>
        <name>name</name>     <!-- identifier -->
      </import>
    </pim>
  </protocols>
</configuration>
```

Description PIM sparse import join policy.

Contents <name>—PIM sparse import join policy.

<import> (configuration/protocols/rip)

Usage

```
<configuration>
  <protocols>
    <rip>
      <import>
        <name>name</name>     <!-- identifier -->
      </import>
    </rip>
  </protocols>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/protocols/rip/group/neighbor)

Usage

```
<configuration>
  <protocols>
    <rip>
      <group>
        <neighbor>
          <import>
            <name>name</name>     <!-- identifier -->
          </import>
        </neighbor>
      </group>
    </rip>
  </protocols>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/protocols/ripng)

Usage

```
<configuration>
  <protocols>
    <ripng>
      <import>
        <name>name</name>     <!-- identifier -->
      </import>
    </ripng>
  </protocols>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/protocols/ripng/group/neighbor)

Usage

```
<configuration>
  <protocols>
    <ripng>
      <group>
        <neighbor>
          <import>
            <name>name</name>     <!-- identifier -->
          </import>
        </neighbor>
      </group>
    </ripng>
  </protocols>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/routing-instances/instance/protocols/bgp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <import>
            <name>name</name>     <!-- identifier -->
          </import>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/routing-instances/instance/protocols/bgp/group)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <import>
              <name>name</name>     <!-- identifier -->
            </import>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/routing-instances/instance/protocols/bgp/group/neighbor)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <import>
                <name>name</name>     <!-- identifier -->
              </import>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/routing-instances/instance/protocols/ldp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <import>
            <name>name</name>     <!-- identifier -->
          </import>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/routing-instances/instance/protocols/pim)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <import>
            <name>name</name>     <!-- identifier -->
          </import>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description PIM sparse import join policy.

Contents <name>—PIM sparse import join policy.

<import> (configuration/routing-instances/instance/protocols/rip)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <import>
            <name>name</name>     <!-- identifier -->
          </import>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/routing-instances/instance/protocols/rip/group/neighbor)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <group>
            <neighbor>
              <import>
                <name>name</name>     <!-- identifier -->
              </import>
            </neighbor>
          </group>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/routing-instances/instance/routing-options/interface-routes/family)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <interface-routes>
          <family>
            <import>
              <name>name</name>     <!-- identifier -->
            </import>
          </family>
        </interface-routes>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import> (configuration/routing-options/interface-routes/family)

Usage

```
<configuration>
  <routing-options>
    <interface-routes>
      <family>
        <import>
          <name>name</name>     <!-- identifier -->
        </import>
      </family>
    </interface-routes>
  </routing-options>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import-policy> (configuration/routing-instances/instance/routing-options/rib-groups)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib-groups>
          <import-policy>
            <name>name</name>     <!-- identifier -->
          </import-policy>
        </rib-groups>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import-policy> (configuration/routing-options/rib-groups)

Usage

```
<configuration>
  <routing-options>
    <rib-groups>
      <import-policy>
        <name>name</name>     <!-- identifier -->
      </import-policy>
    </rib-groups>
  </routing-options>
</configuration>
```

Description Import policy.

Contents <name>—Import policy.

<import-rib> (configuration/routing-instances/instance/routing-options/rib-groups)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib-groups>
          <import-rib>
            <name>name</name>     <!-- identifier -->
          </import-rib>
        </rib-groups>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Import routing table.

Contents <name>—Import routing table.

<import-rib> (configuration/routing-options/rib-groups)

Usage

```
<configuration>
  <routing-options>
    <rib-groups>
      <import-rib>
        <name>name</name>     <!-- identifier -->
      </import-rib>
    </rib-groups>
  </routing-options>
</configuration>
```

Description Import routing table.

Contents <name>—Import routing table.

<include> (configuration/protocols/mpls/admin-group)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <admin-group>
        <include>
          <name>name</name>     <!-- identifier -->
        </include>
      </admin-group>
    </mpls>
  </protocols>
</configuration>
```

Description Groups to require.

Contents <name>—Groups to require.

<include> (configuration / protocols / mpls / label-switched-path / admin-group)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <admin-group>
          <include>
            <name>name</name>     <!-- identifier -->
          </include>
        </admin-group>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Groups to require.

Contents <name>—Groups to require.

<include> (configuration / protocols / mpls / label-switched-path / fast-reroute)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <fast-reroute>
          <include>
            <name>name</name>     <!-- identifier -->
          </include>
        </fast-reroute>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Groups to require.

Contents <name>—Groups to require.

<include> (configuration/protocols/mpls/label-switched-path/primary/admin-group)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <primary>
          <admin-group>
            <include>
              <name>name</name>     <!-- identifier -->
            </include>
          </admin-group>
        </primary>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Groups to require.

Contents <name>—Groups to require.

<include> (configuration/protocols/mpls/label-switched-path/secondary/admin-group)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <secondary>
          <admin-group>
            <include>
              <name>name</name>     <!-- identifier -->
            </include>
          </admin-group>
        </secondary>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Groups to require.

Contents <name>—Groups to require.

<inet> (configuration / firewall / family)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>...</filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Protocol family IPv4 for firewall filter.

Contents <filter>—No documentation is available yet.

<inet> (configuration / forwarding-options / family)

Usage

```
<configuration>
  <forwarding-options>
    <family>
      <inet>
        <filter>...</filter>
      </inet>
    </family>
  </forwarding-options>
</configuration>
```

Description IPv4 parameters.

Contents <filter>—Filtering for forwarding table.

<inet> (configuration / forwarding-options / hash-key / family)

Usage

```
<configuration>
  <forwarding-options>
    <hash-key>
      <family>
        <inet>
          <layer-3/>     <!-- mandatory -->
          <layer-4/>
        </inet>
      </family>
    </hash-key>
  </forwarding-options>
</configuration>
```

Description IPv4 protocol family.

Contents <layer-3>—Include Layer 3 (IP) data in the hash key.

<layer-4>—Include Layer 4 (TCP or UDP) data in the hash key.

<inet> (configuration / forwarding-options / monitoring / family)

Usage

```
<configuration>
  <forwarding-options>
    <monitoring>
      <family>
        <inet>
          <input>...</input>     <!-- mandatory -->
          <output>...</output>     <!-- mandatory -->
        </inet>
      </family>
    </monitoring>
  </forwarding-options>
</configuration>
```

Description Monitor IPv4 packets.

Contents <input>—Monitoring data acquisition.

<output>—Monitoring data disposition.

<inet> (configuration / forwarding-options / sampling / input / family)

Usage

```
<configuration>
  <forwarding-options>
    <sampling>
      <input>
        <family>
          <inet>
            <rate>rate</rate>
            <run-length>run-length</run-length>
            <max-packets-per-second>max-packets</max-packets-per-second>
          </inet>
        </family>
      </input>
    </sampling>
  </forwarding-options>
</configuration>
```

Description Sampling parameters for IPv4.

Contents <max-packets-per-second>—Threshold of samples per second before dropping.

<rate>—Ratio of packets to be sampled (1 out of N [1..65535]).

<run-length>—Number of samples after initial trigger [0..20].

<inet> (configuration/interfaces/interface/unit/family)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <accounting>...</accounting>
            <rpf-check>...</rpf-check>
            <mtu>mtu</mtu>
            <no-redirects/>
            <multicast-only/>
            <primary/>
            <ipsec-sa>ipsec-sa</ipsec-sa>
            <filter>...</filter>
            <policer>...</policer>
            <address>...</address>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description IPv4 parameters.

Contents <accounting>—Configure interface-based accounting options.

<address>—Interface address or destination prefix.

<filter>—Packet filtering.

<ipsec-sa>—Name of the security association.

<mtu>—Protocol family MTU.

<multicast-only>—Allow only multicast traffic (tunnels only).

<no-redirects>—Do not redirect traffic.

<policer>—Interface policing.

<primary>—Candidate for primary interface in system.

<rpf-check>—Enable reverse-path-forwarding checks on this interface.

<inet> (configuration/protocols/bgp/family)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <unicast>...</unicast>
          <multicast>...</multicast>
          <any>...</any>
          <labeled-unicast>...</labeled-unicast>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description IPv4 NLRI parameters.

Contents <any>—Include unicast or multicast NLRI.

<labeled-unicast>—Include labeled unicast NLRI.

<multicast>—Include multicast NLRI.

<unicast>—Include unicast NLRI.

<inet> (configuration/protocols/bgp/group/family)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <unicast>...</unicast>
            <multicast>...</multicast>
            <any>...</any>
            <labeled-unicast>...</labeled-unicast>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description IPv4 NLRI parameters.

Contents <any>—Include unicast or multicast NLRI.

<labeled-unicast>—Include labeled unicast NLRI.

<multicast>—Include multicast NLRI.

<unicast>—Include unicast NLRI.

<inet> (configuration/protocols/bgp/group/neighbor/family)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <unicast>...</unicast>
              <multicast>...</multicast>
              <any>...</any>
              <labeled-unicast>...</labeled-unicast>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description IPv4 NLRI parameters.

Contents <any>—Include unicast or multicast NLRI.

<labeled-unicast>—Include labeled unicast NLRI.

<multicast>—Include multicast NLRI.

<unicast>—Include unicast NLRI.

<inet> (configuration/protocols/pim/rp/local/family)

Usage

```
<configuration>
  <protocols>
    <pim>
      <rp>
        <local>
          <family>
            <inet>
              <address>address</address>     <!-- mandatory -->
              <disable/>
              <priority>priority</priority>
              <hold-time>hold-time</hold-time>
              <group-ranges>...</group-ranges>
            </inet>
          </family>
        </local>
      </rp>
    </pim>
  </protocols>
</configuration>
```

Description IPv4 local RP properties.

Contents <address>—Local RP address.

<disable>—Disable this RP.

<group-ranges>—Group address range for which this router can be an RP.

<hold-time>—When we think an RP is down (seconds).

<priority>—Router's priority for becoming an RP.

<inet> (configuration/routing-instances/instance/protocols/bgp/family)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <unicast>...</unicast>
              <multicast>...</multicast>
              <any>...</any>
              <labeled-unicast>...</labeled-unicast>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description IPv4 NLRI parameters.

Contents <any>—Include unicast or multicast NLRI.

<labeled-unicast>—Include labeled unicast NLRI.

<multicast>—Include multicast NLRI.

<unicast>—Include unicast NLRI.

<inet> (configuration/routing-instances/instance/protocols/bgp/group/family)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <unicast>...</unicast>
                <multicast>...</multicast>
                <any>...</any>
                <labeled-unicast>...</labeled-unicast>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description IPv4 NLRI parameters.

Contents <any>—Include unicast or multicast NLRI.

<labeled-unicast>—Include labeled unicast NLRI.

<multicast>—Include multicast NLRI.

<unicast>—Include unicast NLRI.

<inet> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <unicast>...</unicast>
                  <multicast>...</multicast>
                  <any>...</any>
                  <labeled-unicast>...</labeled-unicast>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description IPv4 NLRI parameters.

Contents <any>—Include unicast or multicast NLRI.

<labeled-unicast>—Include labeled unicast NLRI.

<multicast>—Include multicast NLRI.

<unicast>—Include unicast NLRI.

<inet> (configuration/routing-instances/instance/protocols/pim/rp/local/family)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <rp>
            <local>
              <family>
                <inet>
                  <address>address</address>     <!-- mandatory -->
                  <disable/>
                  <priority>priority</priority>
                  <hold-time>hold-time</hold-time>
                  <group-ranges>...</group-ranges>
                </inet>
              </family>
            </local>
          </rp>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description IPv4 local RP properties.

Contents <address>—Local RP address.

<disable>—Disable this RP.

<group-ranges>—Group address range for which this router can be an RP.

<hold-time>—When we think an RP is down (seconds).

<priority>—Router's priority for becoming an RP.

<inet> (configuration/routing-instances/instance/routing-options/auto-export/family)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <auto-export>
          <family>
            <inet>
              <unicast>...</unicast>
              <multicast>...</multicast>
            </inet>
          </family>
        </auto-export>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description IPv4 parameters.

Contents <multicast>—Multicast routing information.

<unicast>—Unicast routing information.

<inet> (configuration/routing-options/auto-export/family)

Usage

```
<configuration>
  <routing-options>
    <auto-export>
      <family>
        <inet>
          <unicast>...</unicast>
          <multicast>...</multicast>
        </inet>
      </family>
    </auto-export>
  </routing-options>
</configuration>
```

Description IPv4 parameters.

Contents <multicast>—Multicast routing information.

<unicast>—Unicast routing information.

<inet> (configuration / system / static-host-mapping)

Usage

```
<configuration>
  <system>
    <static-host-mapping>
      <inet>
        <name>name</name>     <!-- identifier -->
      </inet>
    </static-host-mapping>
  </system>
</configuration>
```

Description IP address.

Contents <name>—IP address.

<inet-precedence> (configuration / class-of-service / classifiers)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <inet-precedence>
        <name>name</name>     <!-- identifier -->
        <import>import</import>
        <forwarding-class>...</forwarding-class>
      </inet-precedence>
    </classifiers>
  </class-of-service>
</configuration>
```

Description IPv4 precedence classifier.

Contents <forwarding-class>—Define a classification of code point aliases.

<import>—Include this classifier in this definition.

<name>—Classifier name.

<inet-precedence> (configuration / class-of-service / code-point-aliases)

Usage

```
<configuration>
  <class-of-service>
    <code-point-aliases>
      <inet-precedence>
        <name>name</name>     <!-- identifier -->
        <bits>bits</bits>     <!-- mandatory -->
      </inet-precedence>
    </code-point-aliases>
  </class-of-service>
</configuration>
```

Description IPv4 precedence code point aliases.

Contents <bits>—IPv4 precedence 3-bit pattern.

<name>—IPv4 precedence alias name.

<inet-precedence> (configuration/class-of-service/interfaces/unit/classifiers)

Usage

```
<configuration>
  <class-of-service>
    <interfaces>
      <unit>
        <classifiers>
          <inet-precedence>
            <classifier-name>classifier-name</classifier-name>
          </inet-precedence>
        </classifiers>
      </unit>
    </interfaces>
  </class-of-service>
</configuration>
```

Description IPv4 precedence classifier.

Contents <classifier-name>—Name of classifier to be applied.

<inet-precedence> (configuration/class-of-service/interfaces/unit/rewrite-rules)

Usage

```
<configuration>
  <class-of-service>
    <interfaces>
      <unit>
        <rewrite-rules>
          <inet-precedence>
            <rewrite-rule-name>rewrite-rule-name</rewrite-rule-name>
          </inet-precedence>
        </rewrite-rules>
      </unit>
    </interfaces>
  </class-of-service>
</configuration>
```

Description IPv4 precedence rewrite rule.

Contents <rewrite-rule-name>—Name of rewrite rule to be applied.

<inet-precedence> (configuration / class-of-service / rewrite-rules)

Usage

```
<configuration>
  <class-of-service>
    <rewrite-rules>
      <inet-precedence>
        <name>name</name>     <!-- identifier -->
        <import>import</import>
        <forwarding-class>...</forwarding-class>
      </inet-precedence>
    </rewrite-rules>
  </class-of-service>
</configuration>
```

Description IPv4 precedence rewrite rule.

Contents <forwarding-class>—Markings for named forwarding class.

<import>—Include this rewrite rule in this definition.

<name>—Rewrite rule name.

<inet-vpn> (configuration / protocols / bgp / family)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet-vpn>
          <unicast>...</unicast>
          <multicast>...</multicast>
          <any>...</any>
        </inet-vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description IPv4 Layer 3 VPN NLRI parameters.

Contents <any>—Include unicast or multicast NLRI.

<multicast>—Include multicast NLRI.

<unicast>—Include unicast NLRI.

<inet-vpn> (configuration/protocols/bgp/group/family)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet-vpn>
            <unicast>...</unicast>
            <multicast>...</multicast>
            <any>...</any>
          </inet-vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description IPv4 Layer 3 VPN NLRI parameters.

Contents <any>—Include unicast or multicast NLRI.

<multicast>—Include multicast NLRI.

<unicast>—Include unicast NLRI.

<inet-vpn> (configuration/protocols/bgp/group/neighbor/family)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet-vpn>
              <unicast>...</unicast>
              <multicast>...</multicast>
              <any>...</any>
            </inet-vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description IPv4 Layer 3 VPN NLRI parameters.

Contents <any>—Include unicast or multicast NLRI.

<multicast>—Include multicast NLRI.

<unicast>—Include unicast NLRI.

<inet-vpn> (configuration / routing-instances / instance / protocols / bgp / family)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet-vpn>
              <unicast>...</unicast>
              <multicast>...</multicast>
              <any>...</any>
            </inet-vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description IPv4 Layer 3 VPN NLRI parameters.

Contents <any>—Include unicast or multicast NLRI.

<multicast>—Include multicast NLRI.

<unicast>—Include unicast NLRI.

<inet-vpn> (configuration / routing-instances / instance / protocols / bgp / group / family)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet-vpn>
                <unicast>...</unicast>
                <multicast>...</multicast>
                <any>...</any>
              </inet-vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description IPv4 Layer 3 VPN NLRI parameters.

Contents <any>—Include unicast or multicast NLRI.

<multicast>—Include multicast NLRI.

<unicast>—Include unicast NLRI.

<inet-vpn> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet-vpn>
                  <unicast>...</unicast>
                  <multicast>...</multicast>
                  <any>...</any>
                </inet-vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description IPv4 Layer 3 VPN NLRI parameters.

Contents <any>—Include unicast or multicast NLRI.

<multicast>—Include multicast NLRI.

<unicast>—Include unicast NLRI.

<inet6> (configuration/firewall/family)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>...</filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Protocol family IPv6 for firewall filter.

Contents <filter>—No documentation is available yet.

<inet6> (configuration / forwarding-options / family)

Usage

```
<configuration>
  <forwarding-options>
    <family>
      <inet6>
        <filter>...</filter>
      </inet6>
    </family>
  </forwarding-options>
</configuration>
```

Description IPv6 parameters.

Contents <filter>—Filtering for forwarding table.

<inet6> (configuration / interfaces / interface / unit / family)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet6>
            <rpf-check>...</rpf-check>
            <accounting>...</accounting>
            <mtu>mtu</mtu>
            <filter>...</filter>
            <address>...</address>
          </inet6>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description IPv6 protocol parameters.

Contents <accounting>—Configure interface-based accounting options.

<address>—Interface address or destination prefix.

<filter>—Packet filtering.

<mtu>—Protocol family MTU.

<rpf-check>—Enable reverse-path-forwarding checks on this interface.

<inet6> (configuration/protocols/bgp/family)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <unicast>...</unicast>
          <multicast>...</multicast>
          <any>...</any>
          <labeled-unicast>...</labeled-unicast>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description IPv6 NLRI parameters.

Contents <any>—Include unicast or multicast NLRI.

<labeled-unicast>—Include labeled unicast NLRI.

<multicast>—Include multicast NLRI.

<unicast>—Include unicast NLRI.

<inet6> (configuration/protocols/bgp/group/family)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <unicast>...</unicast>
            <multicast>...</multicast>
            <any>...</any>
            <labeled-unicast>...</labeled-unicast>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description IPv6 NLRI parameters.

Contents <any>—Include unicast or multicast NLRI.

<labeled-unicast>—Include labeled unicast NLRI.

<multicast>—Include multicast NLRI.

<unicast>—Include unicast NLRI.

<inet6> (configuration/protocols/bgp/group/neighbor/family)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <unicast>...</unicast>
              <multicast>...</multicast>
              <any>...</any>
              <labeled-unicast>...</labeled-unicast>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description IPv6 NLRI parameters.

Contents <any>—Include unicast or multicast NLRI.

<labeled-unicast>—Include labeled unicast NLRI.

<multicast>—Include multicast NLRI.

<unicast>—Include unicast NLRI.

<inet6> (configuration/protocols/pim/rp/local/family)

Usage

```
<configuration>
  <protocols>
    <pim>
      <rp>
        <local>
          <family>
            <inet6>
              <address>address</address>     <!-- mandatory -->
              <disable/>
              <priority>priority</priority>
              <hold-time>hold-time</hold-time>
              <group-ranges>...</group-ranges>
            </inet6>
          </family>
        </local>
      </rp>
    </pim>
  </protocols>
</configuration>
```

Description IPv6 local RP properties.

Contents <address>—Local RP address.

<disable>—Disable this RP.

<group-ranges>—Group address range for which this router can be an RP.

<hold-time>—When we think an RP is down (seconds).

<priority>—Router's priority for becoming an RP.

<inet6> (configuration/routing-instances/instance/protocols/bgp/family)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <unicast>...</unicast>
              <multicast>...</multicast>
              <any>...</any>
              <labeled-unicast>...</labeled-unicast>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description IPv6 NLRI parameters.

Contents <any>—Include unicast or multicast NLRI.

<labeled-unicast>—Include labeled unicast NLRI.

<multicast>—Include multicast NLRI.

<unicast>—Include unicast NLRI.

<inet6> (configuration/routing-instances/instance/protocols/bgp/group/family)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet6>
                <unicast>...</unicast>
                <multicast>...</multicast>
                <any>...</any>
                <labeled-unicast>...</labeled-unicast>
              </inet6>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description IPv6 NLRI parameters.

Contents <any>—Include unicast or multicast NLRI.

<labeled-unicast>—Include labeled unicast NLRI.

<multicast>—Include multicast NLRI.

<unicast>—Include unicast NLRI.

<inet6> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <unicast>...</unicast>
                  <multicast>...</multicast>
                  <any>...</any>
                  <labeled-unicast>...</labeled-unicast>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description IPv6 NLRI parameters.

Contents <any>—Include unicast or multicast NLRI.

<labeled-unicast>—Include labeled unicast NLRI.

<multicast>—Include multicast NLRI.

<unicast>—Include unicast NLRI.

<inet6> (configuration/routing-instances/instance/protocols/pim/rp/local/family)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <rp>
            <local>
              <family>
                <inet6>
                  <address>address</address>     <!-- mandatory -->
                  <disable/>
                  <priority>priority</priority>
                  <hold-time>hold-time</hold-time>
                  <group-ranges>...</group-ranges>
                </inet6>
              </family>
            </local>
          </rp>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description IPv6 local RP properties.

Contents <address>—Local RP address.

<disable>—Disable this RP.

<group-ranges>—Group address range for which this router can be an RP.

<hold-time>—When we think an RP is down (seconds).

<priority>—Router's priority for becoming an RP.

<inet6> (configuration/system/static-host-mapping)

Usage

```
<configuration>
  <system>
    <static-host-mapping>
      <inet6>
        <name>name</name>     <!-- identifier -->
      </inet6>
    </static-host-mapping>
  </system>
</configuration>
```

Description IPv6 address.

Contents <name>—IPv6 address.

<inet6-backup-router> (configuration/system)

Usage

```
<configuration>
  <system>
    <inet6-backup-router>
      <address>address</address>     <!-- mandatory -->
      <destination>destination</destination>
    </inet6-backup-router>
  </system>
</configuration>
```

Description IPv6 router to use while booting.

Contents <address>—Address of router to use while booting.

<destination>—Destination network reachable through the router.

<input> (configuration/forwarding-options/monitoring/family/inet)

Usage

```
<configuration>
  <forwarding-options>
    <monitoring>
      <family>
        <inet>
          <input>
            <interface>...</interface>
          </input>
        </inet>
      </family>
    </monitoring>
  </forwarding-options>
</configuration>
```

Description Monitoring data acquisition.

Contents <interface>—No documentation is available yet.

<input> (configuration/forwarding-options/sampling)

Usage

```
<configuration>
  <forwarding-options>
    <sampling>
      <input>
        <family>...</family>
      </input>
    </sampling>
  </forwarding-options>
</configuration>
```

Description Traffic sampling data acquisition.

Contents <family>—Protocol family.

<input-policer> (configuration / class-of-service / interfaces / unit)

Usage

```
<configuration>
  <class-of-service>
    <interfaces>
      <unit>
        <input-policer>
          <bandwidth>bits per second</bandwidth>
          <burst>bytes</burst>
        </input-policer>
      </unit>
    </interfaces>
  </class-of-service>
</configuration>
```

Description Input policer applied to this logical interface.

Contents <bandwidth>—Bandwidth.

<burst>—Burst.

<install> (configuration / protocols / mpls / label-switched-path)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <install>
          <name>name</name>     <!-- identifier -->
          <active/>
        </install>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Install prefix.

Contents <active>—Install prefix into forwarding table.

<name>—Destination prefix.

<install-nexthop> (configuration/policy-options/policy-statement/from/route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <install-nexthop>
            <lsp>lsp</lsp>
          </install-nexthop>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Choose the next hop to be used for forwarding.

Contents <lsp>—Next-hop LSP.

<install-nexthop> (configuration/policy-options/policy-statement/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <install-nexthop>
            <lsp>lsp</lsp>
          </install-nexthop>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Choose the next hop to be used for forwarding.

Contents <lsp>—Next-hop LSP.

<install-nexthop> (configuration / policy-options / policy-statement / term / from / route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <install-nexthop>
              <lsp>lsp</lsp>
            </install-nexthop>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Choose the next hop to be used for forwarding.

Contents <lsp>—Next-hop LSP.

<install-nexthop> (configuration / policy-options / policy-statement / term / from / source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <install-nexthop>
              <lsp>lsp</lsp>
            </install-nexthop>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Choose the next hop to be used for forwarding.

Contents <lsp>—Next-hop LSP.

<install-nexthop> (configuration / policy-options / policy-statement / term / then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <install-nexthop>
            <lsp>lsp</lsp>
          </install-nexthop>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Choose the next hop to be used for forwarding.

Contents <lsp>—Next-hop LSP.

<install-nexthop> (configuration / policy-options / policy-statement / then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <then>
        <install-nexthop>
          <lsp>lsp</lsp>
        </install-nexthop>
      </then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Choose the next hop to be used for forwarding.

Contents <lsp>—Next-hop LSP.

<instance> (configuration/routing-instances)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <name>name</name>     <!-- identifier -->
      <description>description</description>
      <instance-type>instance-type-choice</instance-type>
      <interface>...</interface>
      <route-distinguisher>...</route-distinguisher>
      <vrf-import>...</vrf-import>
      <vrf-export>...</vrf-export>
      <vrf-target>...</vrf-target>
      <vrf-table-label/>
      <routing-options>...</routing-options>
      <forwarding-options>forwarding-options</forwarding-options>
      <protocols>...</protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description No documentation is available yet.

Contents <description>—Text description of routing instance.

<forwarding-options>—Forwarding options configuration.

<instance-type>—Type of routing instance.

- forwarding—Forwarding instance.
- l2vpn—Layer 2 VPN routing instance.
- no-forwarding—Nonforwarding instance.
- vrf—Virtual routing forwarding instance.

<interface>—Interface name for this routing instance.

<name>—Routing instance name.

<protocols>—Routing protocol configuration.

<route-distinguisher>—Route distinguisher for this instance.

<routing-options>—Protocol-independent routing option configuration.

<vrf-export>—Export policy for VRF instance RIBs.

<vrf-import>—Import policy for VRF instance RIBs.

<vrf-table-label>—Advertise a single VPN label for all routes in the VRF.

<vrf-target>—No documentation is available yet.

<instance-export> (configuration / routing-instances / instance / routing-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <instance-export>
          <name>name</name>     <!-- identifier -->
        </instance-export>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Export policy for instance RIBs.

Contents <name>—Export policy for instance RIBs.

<instance-export> (configuration / routing-options)

Usage

```
<configuration>
  <routing-options>
    <instance-export>
      <name>name</name>     <!-- identifier -->
    </instance-export>
  </routing-options>
</configuration>
```

Description Export policy for instance RIBs.

Contents <name>—Export policy for instance RIBs.

<instance-import> (configuration / routing-instances / instance / routing-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <instance-import>
          <name>name</name>     <!-- identifier -->
        </instance-import>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Import policy for instance RIBs.

Contents <name>—Import policy for instance RIBs.

<instance-import> (configuration/routing-options)

Usage

```
<configuration>
  <routing-options>
    <instance-import>
      <name>name</name>     <!-- identifier -->
    </instance-import>
  </routing-options>
</configuration>
```

Description Import policy for instance RIBs.

Contents <name>—Import policy for instance RIBs.

<interactive-1> (configuration/services/ggsn/apn/quality-of-service)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <quality-of-service>
          <interactive-1>
            <name>name</name>     <!-- identifier -->
          </interactive-1>
        </quality-of-service>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description DSCP name for interactive class 1 traffic.

Contents <name>—DSCP name for interactive class 1 traffic.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.

- af43—Assured forwarding class 4, high drop precedence.
- be—Best effort forwarding.
- ef—Expedited forwarding.

<interactive-1> (configuration/services/ggsn/gtp/quality-of-service)

Usage

```
<configuration>
  <services>
    <ggsn>
      <gtp>
        <quality-of-service>
          <interactive-1>
            <name>name</name>     <!-- identifier -->
          </interactive-1>
        </quality-of-service>
      </gtp>
    </ggsn>
  </services>
</configuration>
```

Description DSCP name for interactive class 1 traffic.

Contents <name>—DSCP name for interactive class 1 traffic.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- be—Best effort forwarding.
- ef—Expedited forwarding.

<interactive-2> (configuration/services/ggsn/apn/quality-of-service)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <quality-of-service>
          <interactive-2>
            <name>name</name>     <!-- identifier -->
          </interactive-2>
        </quality-of-service>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description DSCP name for interactive class 2 traffic.

Contents <name>—DSCP name for interactive class 2 traffic.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- be—Best effort forwarding.
- ef—Expedited forwarding.

<interactive-2> (configuration/services/ggsn/gtp/quality-of-service)

Usage

```
<configuration>
  <services>
    <ggsn>
      <gtp>
        <quality-of-service>
          <interactive-2>
            <name>name</name>     <!-- identifier -->
          </interactive-2>
        </quality-of-service>
      </gtp>
    </ggsn>
  </services>
</configuration>
```

Description DSCP name for interactive class 2 traffic.

Contents <name>—DSCP name for interactive class 2 traffic.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- be—Best effort forwarding.
- ef—Expedited forwarding.

<interactive-3> (configuration/services/ggsn/apn/quality-of-service)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <quality-of-service>
          <interactive-3>
            <name>name</name>     <!-- identifier -->
          </interactive-3>
        </quality-of-service>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description DSCP name for interactive class 3 traffic.

Contents <name>—DSCP name for interactive class 3 traffic.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- be—Best effort forwarding.
- ef—Expedited forwarding.

<interactive-3> (configuration/services/ggsn/gtp/quality-of-service)

Usage

```
<configuration>
  <services>
    <ggsn>
      <gtp>
        <quality-of-service>
          <interactive-3>
            <name>name</name>     <!-- identifier -->
          </interactive-3>
        </quality-of-service>
      </gtp>
    </ggsn>
  </services>
</configuration>
```

Description DSCP name for interactive class 3 traffic.

Contents <name>—DSCP name for interactive class 3 traffic.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- be—Best effort forwarding.
- ef—Expedited forwarding.

<interface> (configuration/forwarding-options/helpers/bootp)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <bootp>
        <interface>
          <description>description</description>
          <server>...</server>
          <maximum-hop-count>maximum-hop-count</maximum-hop-count>
          <minimum-wait-time>minimum-wait-time</minimum-wait-time>
          <name>name</name>     <!-- identifier -->
          <no-listen/>
        </interface>
      </bootp>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Incoming BOOTP/DHCP request forwarding interface configuration.

Contents <description>—Text description of servers.

<maximum-hop-count>—Maximum number of hops per packet.

<minimum-wait-time>—Minimum number of seconds before requests are forwarded.

<name>—Name of interface or group of interfaces.

<no-listen>—Do not listen on this interface.

<server>—Server information.

<interface> (configuration/forwarding-options/helpers/domain)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <domain>
        <interface>
          <description>description</description>
          <server>...</server>
          <name>name</name>     <!-- identifier -->
          <no-listen/>
        </interface>
      </domain>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Incoming DNS request forwarding interface configuration.

Contents <description>—Text description of server.

<name>—Name of interface or group of interfaces.

<no-listen>—Do not listen on this interface.

<server>—Server information.

<interface> (configuration/forwarding-options/helpers/port)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <port>
        <interface>
          <description>description</description>
          <server>...</server>
          <name>name</name>     <!-- identifier -->
          <no-listen/>
        </interface>
      </port>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Incoming request forwarding interface configuration.

Contents <description>—Text description of server.

<name>—Name of interface or group of interfaces.

<no-listen>—Do not listen on this interface.

<server>—Server information.

<interface> (configuration/forwarding-options/helpers/tftp)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <tftp>
        <interface>
          <description>description</description>
          <server>...</server>
          <name>name</name>     <!-- identifier -->
          <no-listen/>
        </interface>
      </tftp>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Incoming TFTP request forwarding interface configuration.

Contents <description>—Text description of server.

<name>—Name of interface or group of interfaces.

<no-listen>—Do not listen on this interface.

<server>—Server information.

<interface> (configuration/forwarding-options/monitoring/family/inet/input)

Usage

```
<configuration>
  <forwarding-options>
    <monitoring>
      <family>
        <inet>
          <input>
            <interface>
              <name>name</name>     <!-- identifier -->
            </interface>
          </input>
        </inet>
      </family>
    </monitoring>
  </forwarding-options>
</configuration>
```

Description No documentation is available yet.

Contents <name>—Interface which will be monitored.

<interface> (configuration/forwarding-options/monitoring/family/inet/output)

Usage

```
<configuration>
  <forwarding-options>
    <monitoring>
      <family>
        <inet>
          <output>
            <interface>
              <name>name</name>     <!-- identifier -->
              <engine-id>engine-id</engine-id>     <!-- mandatory -->
              <engine-type>engine-type</engine-type>
              <input-interface-index>input-interface-index</input-interface-index>
              <output-interface-index>output-interface-index</output-interface-index>
            </interface>
          </output>
        </inet>
      </family>
    </monitoring>
  </forwarding-options>
</configuration>
```

Description Interfaces used to send monitored information.

Contents <engine-id>—Identity (number) of this monitoring interface.

<engine-type>—Type (number) of this monitoring interface.

<input-interface-index>—Input interface index for records from this interface.

<name>—Interface to be used for sending monitored information.

<output-interface-index>—Output interface index for records from this interface.

<interface> (configuration/interfaces)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <name>name</name>     <!-- identifier -->
      <description>description</description>
      <disable/>
      <traceoptions>...</traceoptions>
      <keepalives>...</keepalives>
      <no-keepalives/>
      <traps/>
      <accounting-profile>accounting-profile</accounting-profile>
      <dce/>
      <vlan-tagging/>
      <speed>speed</speed>
      <mtu>mtu</mtu>
      <hold-time>...</hold-time>
      <clocking>clocking-choice</clocking>
      <link-mode>link-mode-choice</link-mode>
      <encapsulation>encapsulation-choice</encapsulation>
      <lmi>...</lmi>
      <mfr-bundle-options>...</mfr-bundle-options>
      <mac>mac</mac>
      <receive-bucket>...</receive-bucket>
      <transmit-bucket>...</transmit-bucket>
      <sonet-options>...</sonet-options>
      <aggregated-sonet-options>...</aggregated-sonet-options>
      <atm-options>...</atm-options>
      <multiservice-options>...</multiservice-options>
      <ggsn-options>...</ggsn-options>
      <ppp-options>...</ppp-options>
      <t3-options>...</t3-options>
      <e3-options>...</e3-options>
      <e1-options>...</e1-options>
      <t1-options>...</t1-options>
      <ds0-options>...</ds0-options>
      <gigether-options>...</gigether-options>
      <fastether-options>...</fastether-options>
      <aggregated-ether-options>...</aggregated-ether-options>
      <unit>...</unit>
      <partition>...</partition>
    </interface>
  </interfaces>
</configuration>
```

Description No documentation is available yet.

Contents <accounting-profile>—Accounting profile name.

<aggregated-ether-options>—Aggregated Ethernet interface-specific options.

<aggregated-sonet-options>—Aggregated SONET interface-specific options.

<atm-options>—ATM interface-specific options.

<clocking>—Interface clock source.

- external—Clocking provided by DCE (loop timing).
- internal—Clocking provided by local system.

<dce>—Respond to Frame Relay status enquiry messages.

<description>—Text description of interface.

<disable>—Disable this interface.

<ds0-options>—DS-0 interface-specific options.

<e1-options>—E1 interface-specific options.

<e3-options>—E3 interface-specific options.

<encapsulation>—Physical link-layer encapsulation.

- atm-ccc-cell-relay—ATM Cell Relay encapsulation for cross connection.
- atm-pvc—ATM permanent virtual circuits.
- cisco-hdlc—Cisco-compatible HDLC framing.
- cisco-hdlc-ccc—Cisco-compatible HDLC framing for a cross connection.
- cisco-hdlc-tcc—Cisco-compatible HDLC framing for a translational cross connection.
- ethernet-ccc—Ethernet cross connection.
- ethernet-over-atm—Ethernet over ATM encapsulation.
- ethernet-tcc—Ethernet translational cross connection.
- extended-vlan-ccc—Nonstandard TPID tagging for a cross connection.
- extended-vlan-tcc—802.1Q tagging for a translational cross connection.
- frame-relay—Frame Relay encapsulation.
- frame-relay-ccc—Frame Relay encapsulation for cross connection.
- frame-relay-tcc—Frame Relay encapsulation for translational cross connection.
- multilink-framerelay-uni-nni—Multilink Frame Relay UNI/NNI encapsulation (FRF.16).
- ppp—Serial PPP device.
- ppp-ccc—Serial PPP device for a cross connection.

- ppp-tcc—Serial PPP device for a translational cross connection.
- vlan-ccc—802.1Q tagging for a cross connection.

<fastether-options>—Fast Ethernet interface-specific options.

<ggsn-options>—GGSN interface-specific options.

<gigether-options>—Gigabit Ethernet interface-specific options.

<hold-time>—Hold time for link up and link down.

<keepalives>—Send or demand keepalive messages.

<link-mode>—Link operational mode.

- full-duplex—Full-duplex operation.
- half-duplex—Half-duplex operation.

<lmi>—Local Management Interface settings.

<mac>—Hardware MAC address.

<mfr-bundle-options>—Multilink Frame Relay FRF.16 management settings.

<mtu>—Maximum transmit packet size.

<multiservice-options>—Multiservice interface-specific options.

<name>—Interface name.

<no-keepalives>—Do not send or demand keepalive messages.

<partition>—Channelized interface partition.

<ppp-options>—Point-to-Point Protocol (PPP) interface-specific options.

<receive-bucket>—Set receive bucket parameters.

<sonet-options>—SONET interface-specific options.

<speed>—Link speed.

<t1-options>—T1 interface-specific options.

<t3-options>—T3 interface-specific options.

<traceoptions>—Interface trace options.

<transmit-bucket>—Set transmit bucket parameters.

<traps>—Enable SNMP notifications on state changes.

<unit>—Logical interface.

<vlan-tagging>—802.1Q VLAN tagging support.

<interface> (configuration / interfaces / interface / unit / family / inet / address / vrrp-group / track)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <address>
              <vrrp-group>
                <track>
                  <interface>
                    <name>name</name>     <!-- identifier -->
                    <priority-cost>priority-cost</priority-cost>
                  </interface>
                </track>
              </vrrp-group>
            </address>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Interface to track in this VRRP group.

Contents <name>—Interface name.

<priority-cost>—Value to subtract from priority when interface is down.

<interface> (configuration / policy-options / policy-statement / from)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <interface>
          <name>name</name>     <!-- identifier -->
        </interface>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Interface name or address.

Contents <name>—Interface name or address.

<interface> (configuration/policy-options/policy-statement/term/from)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <interface>
            <name>name</name>     <!-- identifier -->
          </interface>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Interface name or address.

Contents <name>—Interface name or address.

<interface> (configuration/policy-options/policy-statement/term/to)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <to>
          <interface>
            <name>name</name>     <!-- identifier -->
          </interface>
        </to>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Interface name or address.

Contents <name>—Interface name or address.

<interface> (configuration/policy-options/policy-statement/to)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <to>
        <interface>
          <name>name</name>     <!-- identifier -->
        </interface>
      </to>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Interface name or address.

Contents <name>—Interface name or address.

<interface> (configuration/protocols/connections/interface-switch)

Usage

```
<configuration>
  <protocols>
    <connections>
      <interface-switch>
        <interface>
          <name>name</name>     <!-- identifier -->
        </interface>
      </interface-switch>
    </connections>
  </protocols>
</configuration>
```

Description Interface to be switched.

Contents <name>—Interface name.

<interface> (configuration/protocols/dvmrp)

Usage

```
<configuration>
  <protocols>
    <dvmrp>
      <interface>
        <name>name</name>     <!-- identifier -->
        <disable/>
        <mode>mode-choice</mode>
        <metric>metric</metric>
        <hold-time>seconds</hold-time>
      </interface>
    </dvmrp>
  </protocols>
</configuration>
```

Description DVMRP interface options.

Contents <disable>—Disable DVMRP on this interface.

<hold-time>—When neighbors think we are down.

<metric>—DVMRP metric value.

<mode>—Mode of interface.

- forwarding—Use DVMRP for multicast forwarding.
- unicast-routing—Use DVMRP for unicast routing only.

<name>—Interface name.

<interface> (configuration/protocols/igmp)

Usage

```
<configuration>
  <protocols>
    <igmp>
      <interface>
        <name>name</name>     <!-- identifier -->
        <disable/>
        <version>version</version>
        <static>...</static>
      </interface>
    </igmp>
  </protocols>
</configuration>
```

Description Interface options for IGMP.

Contents <disable>—Disable IGMP on this interface.

<name>—Interface name.

<static>—Static group or source membership.

<version>—Set IGMP version number on this interface.

<interface> (configuration/protocols/isis)

Usage

```
<configuration>
  <protocols>
    <isis>
      <interface>
        <name>name</name>     <!-- identifier -->
        <disable/>
        <lsp-interval>milliseconds</lsp-interval>
        <csnp-interval>...</csnp-interval>
        <mesh-group>...</mesh-group>
        <passive/>
        <checksum/>
        <no-multicast/>
        <level>...</level>
      </interface>
    </isis>
  </protocols>
</configuration>
```

Description Interface configuration.

Contents <checksum>—Enable checksum for packets on this interface.

<csnp-interval>—Rate of CSN packets.

<disable>—Disable IS-IS on this interface.

<level>—Configure levels on this interface.

<lsp-interval>—Interval between LSP transmissions.

<mesh-group>—Add the interface to a mesh group.

<name>—Interface name.

<no-multicast>—Do not include this interface in the multicast topology.

<passive>—Do not run IS-IS, but advertise it.

<interface> (configuration/protocols/l2circuit/neighbor)

Usage

```
<configuration>
  <protocols>
    <l2circuit>
      <neighbor>
        <interface>
          <name>name</name>     <!-- identifier -->
          <virtual-circuit-id>virtual-circuit-id</virtual-circuit-id>     <!-- mandatory -->
          <interface-description>interface-description</interface-description>
        </interface>
      </neighbor>
    </l2circuit>
  </protocols>
</configuration>
```

Description Interface forming the Layer 2 circuit.

Contents <interface-description>—Interface description.

<name>—Interface name.

<virtual-circuit-id>—Identifier for this Layer 2 circuit.

<interface> (configuration/protocols/ldp)

Usage

```
<configuration>
  <protocols>
    <ldp>
      <interface>
        <name>name</name>     <!-- identifier -->
        <disable/>
        <hello-interval>hello-interval</hello-interval>
        <hold-time>hold-time</hold-time>
        <transport-address>transport-address-choice</transport-address>
      </interface>
    </ldp>
  </protocols>
</configuration>
```

Description Enable LDP on this interface.

Contents <disable>—Disable LDP on this interface.

<hello-interval>—Hello interval (seconds).

<hold-time>—Hello hold time (seconds).

<name>—Interface name.

<transport-address>—Address used for TCP sessions.

- interface—Use interface address for TCP connections.
- loopback—Use loopback address for TCP connections.

<interface> (configuration/protocols/link-management/te-link)

Usage

```
<configuration>
  <protocols>
    <link-management>
      <te-link>
        <interface>
          <name>name</name>     <!-- identifier -->
          <local-address>local-address</local-address>
          <remote-address>remote-address</remote-address>
          <remote-id>remote-id</remote-id>
        </interface>
      </te-link>
    </link-management>
  </protocols>
</configuration>
```

Description Member interface of TE link.

Contents <local-address>—Address of the local end of the interface.

<name>—Interface name.

<remote-address>—Address of the remote end of the interface.

<remote-id>—Interface ID for the remote end of the interface.

<interface> (configuration/protocols/mld)

Usage

```
<configuration>
  <protocols>
    <mld>
      <interface>
        <name>name</name>     <!-- identifier -->
        <disable/>
        <version>version</version>
        <static>...</static>
      </interface>
    </mld>
  </protocols>
</configuration>
```

Description Interface options for MLD.

Contents <disable>—Disable MLD on this interface.

<name>—Interface name.

<static>—Static group or source membership.

<version>—Set MLD version number on this interface.

<interface> (configuration/protocols/mpls)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <interface>
        <name>name</name>     <!-- identifier -->
        <disable/>
        <label-map>...</label-map>
        <admin-group>...</admin-group>
      </interface>
    </mpls>
  </protocols>
</configuration>
```

Description MPLS interface options.

Contents <admin-group>—Administrative groups.

<disable>—Disable MPLS on this interface.

<label-map>—Label to match.

<name>—Interface name.

<interface> (configuration/protocols/ospf/area)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <area>
        <interface>
          <name>name</name>     <!-- identifier -->
          <disable/>
          <interface-type>interface-type-choice</interface-type>
          <passive/>
          <metric>metric</metric>
          <priority>priority</priority>
          <retransmit-interval>retransmit-interval</retransmit-interval>
          <transit-delay>transit-delay</transit-delay>
          <hello-interval>hello-interval</hello-interval>
          <dead-interval>dead-interval</dead-interval>
          <authentication-key>...</authentication-key>
          <neighbor>...</neighbor>
          <poll-interval>poll-interval</poll-interval>
        </interface>
      </area>
    </ospf>
  </protocols>
</configuration>
```

Description Include an interface in this area.

Contents <authentication-key>—Authentication key.

<dead-interval>—Dead interval (seconds).

<disable>—Disable OSPF on this interface.

<hello-interval>—Hello interval (seconds).

<interface-type>—Type of interface.

- nbma—Nonbroadcast multiaccess.
- p2mp—Point-to-multipoint NBMA.

<metric>—Interface metric.

<name>—Interface name.

<neighbor>—NBMA neighbor.

<passive>—Do not run OSPF, but advertise it.

<poll-interval>—Poll interval for NBMA interfaces.

<priority>—Designated router priority.

<retransmit-interval>—Retransmission interval (seconds).

<transit-delay>—Transit delay (seconds).

<interface> (configuration/protocols/ospf3/area)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <area>
        <interface>
          <name>name</name>     <!-- identifier -->
          <disable/>
          <interface-type>interface-type-choice</interface-type>
          <passive/>
          <metric>metric</metric>
          <priority>priority</priority>
          <retransmit-interval>retransmit-interval</retransmit-interval>
          <transit-delay>transit-delay</transit-delay>
          <hello-interval>hello-interval</hello-interval>
          <dead-interval>dead-interval</dead-interval>
          <authentication-key>...</authentication-key>
          <neighbor>...</neighbor>
          <poll-interval>poll-interval</poll-interval>
        </interface>
      </area>
    </ospf3>
  </protocols>
</configuration>
```

Description Include an interface in this area.

Contents <authentication-key>—Authentication key.

<dead-interval>—Dead interval (seconds).

<disable>—Disable OSPF on this interface.

<hello-interval>—Hello interval (seconds).

<interface-type>—Type of interface.

- nbma—Nonbroadcast multiaccess.
- p2mp—Point-to-multipoint NBMA.

<metric>—Interface metric.

<name>—Interface name.

<neighbor>—NBMA neighbor.

<passive>—Do not run OSPF, but advertise it.

<poll-interval>—Poll interval for NBMA interfaces.

<priority>—Designated router priority.

<retransmit-interval>—Retransmission interval (seconds).

<transit-delay>—Transit delay (seconds).

<interface> (configuration/protocols/pim)

Usage

```
<configuration>
  <protocols>
    <pim>
      <interface>
        <name>name</name>     <!-- identifier -->
        <disable/>
        <mode>mode-choice</mode>
        <priority>priority</priority>
        <version>version</version>
        <hello-interval>seconds</hello-interval>
      </interface>
    </pim>
  </protocols>
</configuration>
```

Description PIM interface options.

Contents <disable>—Disable PIM on this interface.

<hello-interval>—Hello interval.

<mode>—Mode of interface.

- dense—Dense mode.
- sparse—Sparse mode.
- sparse-dense—Sparse-dense mode (IPv4 only).

<name>—Interface name.

<priority>—Hello option DR priority.

<version>—Force PIM version.

<interface> (configuration/protocols/router-advertisement)

Usage

```
<configuration>
  <protocols>
    <router-advertisement>
      <interface>
        <name>name</name>     <!-- identifier -->
        <max-advertisement-interval>seconds</max-advertisement-interval>
        <min-advertisement-interval>seconds</min-advertisement-interval>
        <managed-configuration/>
        <other-stateful-configuration/>
        <reachable-time>milliseconds</reachable-time>
        <retransmit-timer>milliseconds</retransmit-timer>
        <current-hop-limit>current-hop-limit</current-hop-limit>
        <default-lifetime>seconds</default-lifetime>
        <prefix>...</prefix>
      </interface>
    </router-advertisement>
  </protocols>
</configuration>
```

Description Interfaces on which to configure router advertisement.

Contents

<current-hop-limit>—Current hop limit.

<default-lifetime>—Router lifetime.

<managed-configuration>—Set managed address configuration.

<max-advertisement-interval>—Maximum advertisement interval.

<min-advertisement-interval>—Minimum advertisement interval.

<name>—Interface name.

<other-stateful-configuration>—Set other stateful configuration.

<prefix>—Prefix configuration.

<reachable-time>—Reachable time.

<retransmit-timer>—Retransmit timer.

<interface> (configuration/protocols/router-discovery)

Usage

```
<configuration>
  <protocols>
    <router-discovery>
      <interface>
        <name>name</name>     <!-- identifier -->
        <max-advertisement-interval>seconds</max-advertisement-interval>
        <min-advertisement-interval>seconds</min-advertisement-interval>
        <lifetime>seconds</lifetime>
      </interface>
    </router-discovery>
  </protocols>
</configuration>
```

Description Interfaces on which to configure router discovery.

Contents <lifetime>—How long addresses in advertisements are valid.

<max-advertisement-interval>—Maximum time before sending advertisements.

<min-advertisement-interval>—Minimum time before sending advertisements.

<name>—Interface name.

<interface> (configuration/protocols/rsvp)

Usage

```
<configuration>
  <protocols>
    <rsvp>
      <interface>
        <name>name</name>     <!-- identifier -->
        <disable/>
        <authentication-key>authentication-key</authentication-key>
        <subscription>subscription</subscription>
        <aggregate/>
        <reliable/>
        <bandwidth>bandwidth</bandwidth>
        <hello-interval>seconds</hello-interval>
        <update-threshold>percent</update-threshold>
        <link-protection>...</link-protection>
      </interface>
    </rsvp>
  </protocols>
</configuration>
```

Description RSVP interface options.

Contents <aggregate>—Permit refresh reduction extensions on the interface.

<authentication-key>—Authentication password.

<bandwidth>—Available bandwidth (bps) for the interface.

<disable>—Disable RSVP on this interface.

<hello-interval>—Hello interval.

<link-protection>—Protect traffic with a label-stacked LSP.

<name>—Interface name.

<reliable>—Permit reliable message delivery on the interface.

<subscription>—Link bandwidth percentage for RSVP reservation.

<update-threshold>—Percentage change in reserved bandwidth to trigger IGP update.

<interface> (configuration/routing-instances/instance)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <interface>
        <name>name</name>     <!-- identifier -->
      </interface>
    </instance>
  </routing-instances>
</configuration>
```

Description Interface name for this routing instance.

Contents <name>—Interface name.

<interface> (configuration/routing-instances/instance/protocols/isis)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <isis>
          <interface>
            <name>name</name>     <!-- identifier -->
            <disable/>
            <lsp-interval>milliseconds</lsp-interval>
            <csnp-interval>...</csnp-interval>
            <mesh-group>...</mesh-group>
            <passive/>
            <checksum/>
            <no-multicast/>
            <level>...</level>
          </interface>
        </isis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Interface configuration.

Contents <checksum>—Enable checksum for packets on this interface.

<csnp-interval>—Rate of CSN packets.

<disable>—Disable IS-IS on this interface.

<level>—Configure levels on this interface.

<lsp-interval>—Interval between LSP transmissions.

<mesh-group>—Add the interface to a mesh group.

<name>—Interface name.

<no-multicast>—Do not include this interface in the multicast topology.

<passive>—Do not run IS-IS, but advertise it.

<interface> (configuration/routing-instances/instance/protocols/l2vpn/site)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <l2vpn>
          <site>
            <interface>
              <name>name</name>     <!-- identifier -->
              <remote-site-id>remote-site-id</remote-site-id>
              <interface-description>interface-description</interface-description>
            </interface>
          </site>
        </l2vpn>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Interface connecting this site to the VPN.

Contents <interface-description>—Interface description.

<name>—Interface name.

<remote-site-id>—Site identifier associated with this interface.

<interface> (configuration/routing-instances/instance/protocols/ldp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <interface>
            <name>name</name>     <!-- identifier -->
            <disable/>
            <hello-interval>hello-interval</hello-interval>
            <hold-time>hold-time</hold-time>
            <transport-address>transport-address-choice</transport-address>
          </interface>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Enable LDP on this interface.

Contents <disable>—Disable LDP on this interface.

<hello-interval>—Hello interval (seconds).

<hold-time>—Hello hold time (seconds).

<name>—Interface name.

<transport-address>—Address used for TCP sessions.

- interface—Use interface address for TCP connections.
- loopback—Use loopback address for TCP connections.

<interface> (configuration / routing-instances / instance / protocols / ospf / area)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <area>
            <interface>
              <name>name</name>     <!-- identifier -->
              <disable/>
              <interface-type>interface-type-choice</interface-type>
              <passive/>
              <metric>metric</metric>
              <priority>priority</priority>
              <retransmit-interval>retransmit-interval</retransmit-interval>
              <transit-delay>transit-delay</transit-delay>
              <hello-interval>hello-interval</hello-interval>
              <dead-interval>dead-interval</dead-interval>
              <authentication-key>...</authentication-key>
              <neighbor>...</neighbor>
              <poll-interval>poll-interval</poll-interval>
            </interface>
          </area>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include an interface in this area.

Contents <authentication-key>—Authentication key.

<dead-interval>—Dead interval (seconds).

<disable>—Disable OSPF on this interface.

<hello-interval>—Hello interval (seconds).

<interface-type>—Type of interface.

- nbma—Nonbroadcast multiaccess.
- p2mp—Point-to-multipoint NBMA.

<metric>—Interface metric.

<name>—Interface name.

<neighbor>—NBMA neighbor.

<passive>—Do not run OSPF, but advertise it.

<poll-interval>—Poll interval for NBMA interfaces.

<priority>—Designated router priority.

<retransmit-interval>—Retransmission interval (seconds).

<transit-delay>—Transit delay (seconds).

<interface> (configuration/routing-instances/instance/protocols/pim)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <interface>
            <name>name</name>     <!-- identifier -->
            <disable/>
            <mode>mode-choice</mode>
            <priority>priority</priority>
            <version>version</version>
            <hello-interval>seconds</hello-interval>
          </interface>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description PIM interface options.

Contents <disable>—Disable PIM on this interface.

<hello-interval>—Hello interval.

<mode>—Mode of interface.

- dense—Dense mode.
- sparse—Sparse mode.
- sparse-dense—Sparse-dense mode (IPv4 only).

<name>—Interface name.

<priority>—Hello option DR priority.

<version>—Force PIM version.

<interface> (configuration/routing-instances/instance/protocols/router-discovery)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <router-discovery>
          <interface>
            <name>name</name>     <!-- identifier -->
            <max-advertisement-interval>seconds</max-advertisement-interval>
            <min-advertisement-interval>seconds</min-advertisement-interval>
            <lifetime>seconds</lifetime>
          </interface>
        </router-discovery>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Interfaces on which to configure router discovery.

Contents <lifetime>—How long addresses in advertisements are valid.

<max-advertisement-interval>—Maximum time before sending advertisements.

<min-advertisement-interval>—Minimum time before sending advertisements.

<name>—Interface name.

<interface> (configuration/routing-instances/instance/routing-options/multicast/scope)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <multicast>
          <scope>
            <interface>
              <name>name</name>     <!-- identifier -->
            </interface>
          </scope>
        </multicast>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Interface on which to configure scoping.

Contents <name>—Interface on which to configure scoping.

<interface> (configuration/routing-options/multicast/scope)

Usage

```
<configuration>
  <routing-options>
    <multicast>
      <scope>
        <interface>
          <name>name</name>     <!-- identifier -->
        </interface>
      </scope>
    </multicast>
  </routing-options>
</configuration>
```

Description Interface on which to configure scoping.

Contents <name>—Interface on which to configure scoping.

<interface> (configuration/snmp)

Usage

```
<configuration>
  <snmp>
    <interface>
      <name>name</name>     <!-- identifier -->
    </interface>
  </snmp>
</configuration>
```

Description Restrict SNMP requests to interfaces.

Contents <name>—Restrict SNMP requests to interfaces.

<interface-group> (configuration/firewall/family/inet/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <interface-group>
                <name>name</name>     <!-- identifier -->
              </interface-group>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match interface group.

Contents <name>—Range of values.

<interface-group> (configuration / firewall / family / inet6 / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <interface-group>
                <name>name</name>     <!-- identifier -->
              </interface-group>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Match interface group.

Contents <name>—Range of values.

<interface-group> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <interface-group>
            <name>name</name>     <!-- identifier -->
          </interface-group>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match interface group.

Contents <name>—Range of values.

<interface-group-except> (configuration/firewall/family/inet/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <interface-group-except>
                <name>name</name>     <!-- identifier -->
              </interface-group-except>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Do not match interface group.

Contents <name>—Range of values.

<interface-group-except> (configuration/firewall/family/inet6/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <interface-group-except>
                <name>name</name>     <!-- identifier -->
              </interface-group-except>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Do not match interface group.

Contents <name>—Range of values.

<interface-group-except> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <interface-group-except>
            <name>name</name>     <!-- identifier -->
          </interface-group-except>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Do not match interface group.

Contents <name>—Range of values.

<interface-profile> (configuration / accounting-options)

Usage

```
<configuration>
  <accounting-options>
    <interface-profile>
      <name>name</name>     <!-- identifier -->
      <file>file</file>
      <interval>minutes</interval>
      <fields>...</fields>     <!-- mandatory -->
    </interface-profile>
  </accounting-options>
</configuration>
```

Description Interface profile for accounting data.

Contents <fields>—Statistics to log to file.

<file>—Name of file for accounting data.

<interval>—Polling interval.

<name>—Name of profile.

<interface-routes> (configuration/routing-instances/instance/routing-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <interface-routes>
          <rib-group>...</rib-group>
          <family>...</family>
        </interface-routes>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Define routing table groups for interface routes.

Contents <family>—Address family.

<rib-group>—Routing table group.

<interface-routes> (configuration/routing-options)

Usage

```
<configuration>
  <routing-options>
    <interface-routes>
      <rib-group>...</rib-group>
      <family>...</family>
    </interface-routes>
  </routing-options>
</configuration>
```

Description Define routing table groups for interface routes.

Contents <family>—Address family.

<rib-group>—Routing table group.

<interface-switch> (configuration/protocols/connections)

Usage

```
<configuration>
  <protocols>
    <connections>
      <interface-switch>
        <name>name</name>     <!-- identifier -->
        <interface>...</interface>
      </interface-switch>
    </connections>
  </protocols>
</configuration>
```

Description Bidirectional switch between interfaces.

Contents <interface>—Interface to be switched.

<name>—Name of interface switch.

<interfaces> (configuration)

Usage

```
<configuration>
  <interfaces>
    <traceoptions>...</traceoptions>
    <interface>...</interface>
  </interfaces>
</configuration>
```

Description Interface configuration.

Contents <interface>—No documentation is available yet.

<traceoptions>—Interface trace options.

<interfaces> (configuration/class-of-service)

Usage

```
<configuration>
  <class-of-service>
    <interfaces>
      <name>name</name>     <!-- identifier -->
      <scheduler-map>scheduler-map</scheduler-map>
      <unit>...</unit>
    </interfaces>
  </class-of-service>
</configuration>
```

Description Apply class-of-service options to interfaces.

Contents <name>—Interface name, wildcards accepted.

<scheduler-map>—Scheduler map applied to this physical interface.

<unit>—Logical interface unit or wildcard.

<interfaces> (configuration/services/ggsn/pdp-context)

Usage

```
<configuration>
  <services>
    <ggsn>
      <pdp-context>
        <interfaces>
          <name>name</name>     <!-- identifier -->
          <creation>creation-choice</creation>
          <limit>limit</limit>
        </interfaces>
      </pdp-context>
    </ggsn>
  </services>
</configuration>
```

Description Interface-specific PDP context creation options.

Contents <creation>—PDP context creation state.

- blocked—New PDP context creation fully blocked.
- unblocked—No restrictions on PDP context creation.

<limit>—Maximum number of PDP contexts.

<name>—No documentation is available yet.

<interpolate> (configuration/class-of-service/drop-profiles)

Usage

```
<configuration>
  <class-of-service>
    <drop-profiles>
      <interpolate>
        <fill-level>...</fill-level>     <!-- mandatory -->
        <drop-probability>...</drop-probability>     <!-- mandatory -->
      </interpolate>
    </drop-profiles>
  </class-of-service>
</configuration>
```

Description Data points interpolated.

Contents <drop-probability>—Data points for packet drop probability.

<fill-level>—Data points for queue full percentage.

<ip-options> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <ip-options>
                <name>name</name>     <!-- identifier -->
              </ip-options>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match IP options.

Contents <name>—No documentation is available yet.

- loose-source-route—Loose source route.
- name—Range of values.
- route-record—Route record.
- router-alert—Router alert.
- strict-source-route—Strict source route.
- timestamp—Timestamp.

<ip-options> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <ip-options>
            <name>name</name>     <!-- identifier -->
          </ip-options>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match IP options.

Contents <name>—No documentation is available yet.

- loose-source-route—Loose source route.
- name—Range of values.
- route-record—Route record.
- router-alert—Router alert.
- strict-source-route—Strict source route.
- timestamp—Timestamp.

<ip-options-except> (configuration/firewall/family/inet/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <ip-options-except>
                <name>name</name>     <!-- identifier -->
              </ip-options-except>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Do not match IP options.

Contents <name>—No documentation is available yet.

- loose-source-route—Loose source route.
- name—Range of values.
- route-record—Route record.
- router-alert—Router alert.
- strict-source-route—Strict source route.
- timestamp—Timestamp.

<ip-options-except> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <ip-options-except>
            <name>name</name>     <!-- identifier -->
          </ip-options-except>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Do not match IP options.

Contents <name>—No documentation is available yet.

- loose-source-route—Loose source route.
- name—Range of values.
- route-record—Route record.
- router-alert—Router alert.
- strict-source-route—Strict source route.
- timestamp—Timestamp.

<ipsec> (configuration / security)

Usage

```
<configuration>
  <security>
    <ipsec>
      <protocol>protocol-choice</protocol>
      <authentication-algorithm>authentication-algorithm-</authentication-algorithm>
      <encryption-algorithm>encryption-algorithm-choice</encryption-algorithm>
      <lifetime-seconds>seconds</lifetime-seconds>
      <proposal>...</proposal>
      <policy>...</policy>
      <security-association>...</security-association>
    </ipsec>
  </security>
</configuration>
```

Description IPSec configuration.

Contents <authentication-algorithm>—Define authentication algorithm.

- hmac-md5-96—HMAC-MD5-96 authentication algorithm.
- hmac-sha1-96—HMAC-SHA1-96 authentication algorithm.

<encryption-algorithm>—Define encryption algorithm.

- 3des-cbc—3DES-CBC encryption algorithm.
- des-cbc—DES-CBC encryption algorithm.

<lifetime-seconds>—Lifetime, in seconds.

<policy>—Define an IPSec policy.

<proposal>—Define an IPSec proposal for a dynamic SA.

<protocol>—Define an IPSec protocol for the proposal.

- ah—Authentication header.
- bundle—Bundle (AH authentication + ESP encryption).
- esp—Encapsulated Security Payload header.

<security-association>—Define an IPSec security association.

<isis> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <isis>
      <disable/>
      <traceoptions>...</traceoptions>
      <export>...</export>
      <reference-bandwidth>reference-bandwidth</reference-bandwidth>
      <lsp-lifetime>seconds</lsp-lifetime>
      <spf-delay>milliseconds</spf-delay>
      <no-authentication-check/>
      <no-ipv4-routing/>
      <no-ipv6-routing/>
      <multicast-topology/>
      <ignore-attached-bit/>
      <rib-group>rib-group</rib-group>
      <overload>...</overload>
      <traffic-engineering>...</traffic-engineering>
      <graceful-restart>...</graceful-restart>
      <level>...</level>
      <interface>...</interface>
      <label-switched-path>...</label-switched-path>
    </isis>
  </protocols>
</configuration>
```

Description IS-IS options.

Contents <disable>—Disable IS-IS.

<export>—Export policy.

<graceful-restart>—IS-IS graceful restart options.

<ignore-attached-bit>—Ignore the attached bit in level 1 LSPs.

<interface>—Interface configuration.

<label-switched-path>—Configuration for advertisement of a label-switched path.

<level>—Configure global level attributes.

<lsp-lifetime>—Lifetime of LSPs.

<multicast-topology>—Enable multicast topology.

<no-authentication-check>—Disable authentication checking.

<no-ipv4-routing>—Disable IPv4 routing.

<no-ipv6-routing>—Disable IPv6 routing.

<overload>—Set the overload bit (no transit traffic).

<reference-bandwidth>—Bandwidth for calculating metric defaults.

<rib-group>—Routing table group for importing IS-IS routes.

<spf-delay>—Time to wait before running an SPF.

<traceoptions>—Trace options for IS-IS.

<traffic-engineering>—Configure traffic engineering attributes.

<isis> (configuration/routing-instances/instance/protocols)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <isis>
          <disable/>
          <traceoptions>...</traceoptions>
          <export>...</export>
          <reference-bandwidth>reference-bandwidth</reference-bandwidth>
          <lsp-lifetime>seconds</lsp-lifetime>
          <spf-delay>milliseconds</spf-delay>
          <no-authentication-check/>
          <no-ipv4-routing/>
          <no-ipv6-routing/>
          <multicast-topology/>
          <ignore-attached-bit/>
          <rib-group>rib-group</rib-group>
          <overload>...</overload>
          <traffic-engineering>...</traffic-engineering>
          <graceful-restart>...</graceful-restart>
          <level>...</level>
          <interface>...</interface>
          <label-switched-path>...</label-switched-path>
        </isis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description IS-IS configuration.

Contents <disable>—Disable IS-IS.

<export>—Export policy.

<graceful-restart>—IS-IS graceful restart options.

<ignore-attached-bit>—Ignore the attached bit in level 1 LSPs.

<interface>—Interface configuration.

<label-switched-path>—Configuration for advertisement of a label-switched path.

<level>—Configure global level attributes.

<lsp-lifetime>—Lifetime of LSPs.

<multicast-topology>—Enable multicast topology.

<no-authentication-check>—Disable authentication checking.

<no-ipv4-routing>—Disable IPv4 routing.

<no-ipv6-routing>—Disable IPv6 routing.

<overload>—Set the overload bit (no transit traffic).

<reference-bandwidth>—Bandwidth for calculating metric defaults.

<rib-group>—Routing table group for importing IS-IS routes.

<spf-delay>—Time to wait before running an SPF.

<traceoptions>—Trace options for IS-IS.

<traffic-engineering>—Configure traffic engineering attributes.

<iso> (configuration / interfaces / interface / unit / family)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <iso>
            <address>address</address>
            <mtu>mtu</mtu>
          </iso>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description OSI ISO protocol parameters.

Contents <address>—Interface address.

<mtu>—Protocol family MTU.

<keepalives> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <keepalives>
        <interval>seconds</interval>
        <up-count>up-count</up-count>
        <down-count>down-count</down-count>
      </keepalives>
    </interface>
  </interfaces>
</configuration>
```

Description Send or demand keepalive messages.

Contents <down-count>—Keepalive missed to bring link down.

<interval>—Keepalive period.

<up-count>—Keepalive received to bring link up.

<key> (configuration/security/ipsec/security-association/manual/direction/authentication)

Usage

```
<configuration>
  <security>
    <ipsec>
      <security-association>
        <manual>
          <direction>
            <authentication>
              <key>
                <ascii-text>ascii-text</ascii-text>
                <hexadecimal>hexadecimal</hexadecimal>
              </key>
            </authentication>
          </direction>
        </manual>
      </security-association>
    </ipsec>
  </security>
</configuration>
```

Description Define an authentication key.

Contents <ascii-text>—In text format.

<hexadecimal>—In hexadecimal format.

<key> (configuration/security/ipsec/security-association/manual/direction/encryption)

Usage

```
<configuration>
  <security>
    <ipsec>
      <security-association>
        <manual>
          <direction>
            <encryption>
              <key>
                <ascii-text>ascii-text</ascii-text>
                <hexadecimal>hexadecimal</hexadecimal>
              </key>
            </encryption>
          </direction>
        </manual>
      </security-association>
    </ipsec>
  </security>
</configuration>
```

Description Define an encryption key.

Contents <ascii-text>—In text format.

<hexadecimal>—In hexadecimal format.

<l2circuit> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <l2circuit>
      <traceoptions>...</traceoptions>
      <neighbor>...</neighbor>
    </l2circuit>
  </protocols>
</configuration>
```

Description Configuration for Layer 2 circuits over MPLS.

Contents <neighbor>—List of Layer 2 circuits to this neighbor.

<traceoptions>—Trace options for Layer 2 circuits.

<l2vpn> (configuration/protocols/bgp/family)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <l2vpn>
          <unicast>...</unicast>
        </l2vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description MPLS-based Layer 2 VPN (L2VPN) NLRI parameters.

Contents <unicast>—Include Layer 2 VPN NLRI.

<l2vpn> (configuration/protocols/bgp/group/family)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <l2vpn>
            <unicast>...</unicast>
          </l2vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description MPLS-based Layer 2 VPN (L2VPN) NLRI parameters.

Contents <unicast>—Include Layer 2 VPN NLRI.

<l2vpn> (configuration/protocols/bgp/group/neighbor/family)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <l2vpn>
              <unicast>...</unicast>
            </l2vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description MPLS-based Layer 2 VPN (L2VPN) NLRI parameters.

Contents <unicast>—Include Layer 2 VPN NLRI.

<l2vpn> (configuration/routing-instances/instance/protocols)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <l2vpn>
          <traceoptions>...</traceoptions>
          <encapsulation-type>encapsulation</encapsulation-type>    <!-- mandatory -->
          <site>...</site>
        </l2vpn>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Layer 2 VPN configuration.

Contents <encapsulation-type>—No documentation is available yet.

- atm-aal5—ATM AAL/5-based Layer 2 VPN.
- atm-cell—ATM cell-based Layer 2 VPN.
- cisco-hdlc—Cisco-compatible HDLC-based Layer 2 VPN.
- ethernet—Ethernet-based Layer 2 VPN.
- ethernet-vlan—Ethernet VLAN-based Layer 2 VPN.
- frame-relay—Frame Relay-based Layer 2 VPN.

- interworking—Layer 2.5 interworking VPN.
- ppp—PPP-based Layer 2 VPN.

<site>—Layer 2 VPN sites connected to this provider equipment.

<traceoptions>—Trace options for Layer 2 VPN.

<l2vpn> (configuration/routing-instances/instance/protocols/bgp/family)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <l2vpn>
              <unicast>...</unicast>
            </l2vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description MPLS-based Layer 2 VPN (L2VPN) NLRI parameters.

Contents <unicast>—Include Layer 2 VPN NLRI.

<l2vpn> (configuration/routing-instances/instance/protocols/bgp/group/family)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <l2vpn>
                <unicast>...</unicast>
              </l2vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description MPLS-based Layer 2 VPN (L2VPN) NLRI parameters.

Contents <unicast>—Include Layer 2 VPN NLRI.

<l2vpn> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <l2vpn>
                  <unicast>...</unicast>
                </l2vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description MPLS-based Layer 2 VPN (L2VPN) NLRI parameters.

Contents <unicast>—Include Layer 2 VPN NLRI.

<label-map> (configuration/protocols/mpls/interface)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <interface>
        <label-map>
          <name>name</name>     <!-- identifier -->
          <next-hop>next-hop</next-hop>
          <reject/>
          <discard/>
          <swap>swap</swap>
          <swap_label>swap_label</swap_label>
          <push_label>push_label</push_label>
          <pop/>
          <type>type-choice</type>
          <preference>preference</preference>
          <class-of-service>class-of-service</class-of-service>
        </label-map>
      </interface>
    </mpls>
  </protocols>
</configuration>
```

Description Label to match.

Contents <class-of-service>—Class-of-service value.

<discard>—Silently discard the packet.

<name>—Label to match.

<next-hop>—Address or interface of next-hop router.

<pop>—Remove the label from the top of the label stack.

<preference>—Preference value.

<reject>—Reject the packet.

<swap>—Remove and replace label from the top of the label stack.

<type>—Traffic type.

- inet—IP version 4.

<label-switched-path> (configuration/protocols/isis)

Usage

```
<configuration>
  <protocols>
    <isis>
      <label-switched-path>
        <name>name</name>     <!-- identifier -->
        <level>...</level>
      </label-switched-path>
    </isis>
  </protocols>
</configuration>
```

Description Configuration for advertisement of a label-switched path.

Contents <level>—Level to advertise this label-switched path.

<name>—Name of label-switched path to be advertised.

<label-switched-path> (configuration/protocols/mpls)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <name>name</name>     <!-- identifier -->
        <disable/>
        <traceoptions>...</traceoptions>
        <from>from</from>
        <to>to</to>     <!-- mandatory -->
        <ldp-tunneling/>
        <metric>metric</metric>
        <install>...</install>
        <retry-timer>seconds</retry-timer>
        <retry-limit>retry-limit</retry-limit>
        <lsp-attributes>...</lsp-attributes>
        <bandwidth>bandwidth</bandwidth>
        <class-of-service>class-of-service</class-of-service>
        <no-decrement-ttl/>
        <hop-limit>hop-limit</hop-limit>
        <no-cspf/>
        <optimize-timer>seconds</optimize-timer>
        <preference>preference</preference>
        <setup-priority>setup-priority</setup-priority>
        <reservation-priority>reservation-priority</reservation-priority>
        <record/>
        <standby/>
        <admin-group>...</admin-group>
        <random/>
        <least-fill/>
        <most-fill/>
        <description>description</description>
        <link-protection/>
        <adaptive/>
        <fast-reroute>...</fast-reroute>
        <auto-bandwidth>...</auto-bandwidth>
        <primary>...</primary>
        <secondary>...</secondary>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Label-switched path.

Contents <adaptive>—Have the LSP smoothly cut over to new routes.

<admin-group>—Administrative group policy.

<auto-bandwidth>—Do auto bandwidth allocation for this LSP.

<bandwidth>—Bandwidth to reserve (bps).

<class-of-service>—Class-of-service value.

<description>—Text description of label-switched path.

<disable>—Disable MPLS label-switched path.

<fast-reroute>—Fast reroute.

<from>—Address of ingress router.

<hop-limit>—Maximum allowed router hops.

<install>—Install prefix.

<ldp-tunneling>—Allow LDP to use this LSP for tunneling.

<least-fill>—Select the least filled among equal-cost paths.

<link-protection>—Protect links with RSVP-TE fast-reroute.

<lsp-attributes>—Attributes for generalized LSP.

<metric>—Metric value.

<most-fill>—Select the most filled among equal-cost paths.

<name>—Name of path.

<no-cspf>—Disable automatic path computation.

<no-decrement-ttl>—Do not decrement the TTL within an LSP.

<optimize-timer>—Periodical path reoptimizations.

<preference>—Preference value.

<primary>—Preferred path.

<random>—Randomly select among equal-cost paths.

<record>—Record transit routers.

<retry-limit>—Maximum number of times to retry primary path.

<retry-timer>—Time before retrying the primary path.

<secondary>—Backup path.

<standby>—Keep backup paths in continuous standby.

<to>—Address of egress router.

<traceoptions>—Trace options for MPLS label-switched path.

<label-switched-path> (configuration/protocols/ospf/area)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <area>
        <label-switched-path>
          <name>name</name>     <!-- identifier -->
          <disable/>
          <metric>metric</metric>
        </label-switched-path>
      </area>
    </ospf>
  </protocols>
</configuration>
```

Description Configuration for advertisement of a label-switched path.

Contents <disable>—Disable OSPF on this label-switched path.

<metric>—Interface metric.

<name>—Name of label-switched path to be advertised.

<label-switched-path> (configuration/protocols/ospf3/area)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <area>
        <label-switched-path>
          <name>name</name>     <!-- identifier -->
          <disable/>
          <metric>metric</metric>
        </label-switched-path>
      </area>
    </ospf3>
  </protocols>
</configuration>
```

Description Configuration for advertisement of a label-switched path.

Contents <disable>—Disable OSPF on this label-switched path.

<metric>—Interface metric.

<name>—Name of label-switched path to be advertised.

<label-switched-path> (configuration/routing-instances/instance/protocols/isis)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <isis>
          <label-switched-path>
            <name>name</name>     <!-- identifier -->
            <level>...</level>
          </label-switched-path>
        </isis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configuration for advertisement of a label-switched path.

Contents <level>—Level to advertise this label-switched path.

<name>—Name of label-switched path to be advertised.

<label-switched-path> (configuration/routing-instances/instance/protocols/ospf/area)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <area>
            <label-switched-path>
              <name>name</name>     <!-- identifier -->
              <disable/>
              <metric>metric</metric>
            </label-switched-path>
          </area>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configuration for advertisement of a label-switched path.

Contents <disable>—Disable OSPF on this label-switched path.

<metric>—Interface metric.

<name>—Name of label-switched path to be advertised.

<labeled-unicast> (configuration/protocols/bgp/family/inet)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <labeled-unicast>
            <prefix-limit>...</prefix-limit>
            <rib-group>...</rib-group>
            <resolve-vpn/>
          </labeled-unicast>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Include labeled unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<resolve-vpn>—Install received NLRI in inet.3 also.

<rib-group>—Routing table group.

<labeled-unicast> (configuration/protocols/bgp/family/inet6)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <labeled-unicast>
            <prefix-limit>...</prefix-limit>
            <rib-group>...</rib-group>
            <explicit-null/>     <!-- mandatory -->
          </labeled-unicast>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Include labeled unicast NLRI.

Contents <explicit-null>—Advertise explicit NULL for all routes.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<labeled-unicast> (configuration/protocols/bgp/group/family/inet)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <labeled-unicast>
              <prefix-limit>...</prefix-limit>
              <rib-group>...</rib-group>
              <resolve-vpn/>
            </labeled-unicast>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include labeled unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<resolve-vpn>—Install received NLRI in inet.3 also.

<rib-group>—Routing table group.

<labeled-unicast> (configuration/protocols/bgp/group/family/inet6)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <labeled-unicast>
              <prefix-limit>...</prefix-limit>
              <rib-group>...</rib-group>
              <explicit-null/>     <!-- mandatory -->
            </labeled-unicast>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include labeled unicast NLRI.

Contents <explicit-null>—Advertise explicit NULL for all routes.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<labeled-unicast> (configuration/protocols/bgp/group/neighbor/family/inet)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <labeled-unicast>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
                <resolve-vpn/>
              </labeled-unicast>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include labeled unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<resolve-vpn>—Install received NLRI in inet.3 also.

<rib-group>—Routing table group.

<labeled-unicast> (configuration/protocols/bgp/group/neighbor/family/inet6)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <labeled-unicast>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
                <explicit-null/>     <!-- mandatory -->
              </labeled-unicast>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include labeled unicast NLRI.

Contents <explicit-null>—Advertise explicit NULL for all routes.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<labeled-unicast> (configuration/routing-instances/instance/protocols/bgp/family/inet)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <protocols>
            <bgp>
               <family>
                  <inet>
                     <labeled-unicast>
                        <prefix-limit>...</prefix-limit>
                        <rib-group>...</rib-group>
                        <resolve-vpn/>
                     </labeled-unicast>
                  </inet>
               </family>
            </bgp>
         </protocols>
      </instance>
   </routing-instances>
</configuration>
```

Description Include labeled unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<resolve-vpn>—Install received NLRI in inet.3 also.

<rib-group>—Routing table group.

<labeled-unicast> (configuration/routing-instances/instance/protocols/bgp/family/inet6)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <protocols>
            <bgp>
               <family>
                  <inet6>
                     <labeled-unicast>
                        <prefix-limit>...</prefix-limit>
                        <rib-group>...</rib-group>
                        <explicit-null/>     <!-- mandatory -->
                     </labeled-unicast>
                  </inet6>
               </family>
            </bgp>
         </protocols>
      </instance>
   </routing-instances>
</configuration>
```

Description Include labeled unicast NLRI.

Contents <explicit-null>—Advertise explicit NULL for all routes.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<labeled-unicast> (configuration / routing-instances / instance / protocols / bgp / group / family / inet)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <labeled-unicast>
                  <prefix-limit>...</prefix-limit>
                  <rib-group>...</rib-group>
                  <resolve-vpn/>
                </labeled-unicast>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include labeled unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<resolve-vpn>—Install received NLRI in inet.3 also.

<rib-group>—Routing table group.

<labeled-unicast> (configuration/routing-instances/instance/protocols/bgp/group/family/inet6)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <protocols>
            <bgp>
               <group>
                  <family>
                     <inet6>
                        <labeled-unicast>
                           <prefix-limit>...</prefix-limit>
                           <rib-group>...</rib-group>
                           <explicit-null/>     <!-- mandatory -->
                        </labeled-unicast>
                     </inet6>
                  </family>
               </group>
            </bgp>
         </protocols>
      </instance>
   </routing-instances>
</configuration>
```

Description Include labeled unicast NLRI.

Contents <explicit-null>—Advertise explicit NULL for all routes.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<labeled-unicast> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <labeled-unicast>
                    <prefix-limit>...</prefix-limit>
                    <rib-group>...</rib-group>
                    <resolve-vpn/>
                  </labeled-unicast>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include labeled unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<resolve-vpn>—Install received NLRI in inet.3 also.

<rib-group>—Routing table group.

<labeled-unicast> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet6)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <labeled-unicast>
                    <prefix-limit>...</prefix-limit>
                    <rib-group>...</rib-group>
                    <explicit-null/>     <!-- mandatory -->
                  </labeled-unicast>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include labeled unicast NLRI.

Contents <explicit-null>—Advertise explicit NULL for all routes.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<larscom> (configuration/interfaces/interface/t3-options/compatibility-mode)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <t3-options>
        <compatibility-mode>
          <larscom>
            <subrate>subrate</subrate>
          </larscom>
        </compatibility-mode>
      </t3-options>
    </interface>
  </interfaces>
</configuration>
```

Description Compatible with Larscom CSU.

Contents <subrate>—Set subrate value.

<last-as> (configuration/policy-options/policy-statement/from/route-filter/as-path-expand)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <as-path-expand>
            <last-as>
              <count>count</count>
            </last-as>
          </as-path-expand>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Prepend last AS.

Contents <count>—Repeat count.

<last-as> (configuration/policy-options/policy-statement/from/source-address-filter/as-path-expand)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <as-path-expand>
            <last-as>
              <count>count</count>
            </last-as>
          </as-path-expand>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Prepend last AS.

Contents <count>—Repeat count.

<last-as> (configuration/policy-options/policy-statement/term/from/route-filter/as-path-expand)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <as-path-expand>
              <last-as>
                <count>count</count>
              </last-as>
            </as-path-expand>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Prepend last AS.

Contents <count>—Repeat count.

<last-as> (configuration/policy-options/policy-statement/term/from/source-address-filter/as-path-expand)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <as-path-expand>
              <last-as>
                <count>count</count>
              </last-as>
            </as-path-expand>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Prepend last AS.

Contents <count>—Repeat count.

<last-as> (configuration/policy-options/policy-statement/term/then/as-path-expand)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <as-path-expand>
            <last-as>
              <count>count</count>
            </last-as>
          </as-path-expand>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Prepend last AS.

Contents <count>—Repeat count.

<last-as> (configuration/policy-options/policy-statement/then/as-path-expand)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <then>
        <as-path-expand>
          <last-as>
            <count>count</count>
          </last-as>
        </as-path-expand>
      </then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Prepend last AS.

Contents <count>—Repeat count.

<ldp> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <ldp>
      <traceoptions>...</traceoptions>
      <traffic-statistics>...</traffic-statistics>
      <graceful-restart>...</graceful-restart>
      <preference>preference</preference>
      <no-forwarding/>
      <track-igp-metric/>
      <strict-targeted-hellos/>
      <import>...</import>
      <export>...</export>
      <egress-policy>...</egress-policy>
      <deaggregate/>
      <explicit-null/>
      <transport-address>transport-address-choice</transport-address>
      <keepalive-interval>keepalive-interval</keepalive-interval>
      <keepalive-timeout>keepalive-timeout</keepalive-timeout>
      <interface>...</interface>
      <session>...</session>
    </ldp>
  </protocols>
</configuration>
```

Description LDP options.

Contents

<deaggregate>—Deaggregate FECs into separate labels.

<egress-policy>—Configure LSP egress policy.

<explicit-null>—Advertise the EXPLICIT_NULL label when we are the egress.

<export>—Export policy.

<graceful-restart>—Configure graceful restart attributes.

<import>—Import policy.

<interface>—Enable LDP on this interface.

<keepalive-interval>—Keepalive interval (seconds).

<keepalive-timeout>—Keepalive timeout (seconds).

<no-forwarding>—Do not use LDP ingress routes for forwarding.

<preference>—Route preference.

<session>—Configure session parameters.

<strict-targeted-hellos>—Do not send targeted hellos to unconfigured neighbors.

<traceoptions>—Trace options for LDP.

<track-igp-metric>—Track the IGP metric.

<traffic-statistics>—Collect statistics for LDP label-switched paths.

<transport-address>—Address used for TCP sessions.

- interface—Use interface address for TCP connections.
- loopback—Use loopback address for TCP connections.

<ldp> (configuration/routing-instances/instance/protocols)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <traceoptions>...</traceoptions>
          <traffic-statistics>...</traffic-statistics>
          <graceful-restart>...</graceful-restart>
          <preference>preference</preference>
          <no-forwarding/>
          <track-igp-metric/>
          <strict-targeted-hellos/>
          <import>...</import>
          <export>...</export>
          <egress-policy>...</egress-policy>
          <deaggregate/>
          <explicit-null/>
          <transport-address>transport-address-choice</transport-address>
          <keepalive-interval>keepalive-interval</keepalive-interval>
          <keepalive-timeout>keepalive-timeout</keepalive-timeout>
          <interface>...</interface>
          <session>...</session>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description LDP configuration.

Contents <deaggregate>—Deaggregate FECs into separate labels.

<egress-policy>—Configure LSP egress policy.

<explicit-null>—Advertise the EXPLICIT_NULL label when we are the egress.

<export>—Export policy.

<graceful-restart>—Configure graceful restart attributes.

<import>—Import policy.

<interface>—Enable LDP on this interface.

<keepalive-interval>—Keepalive interval (seconds).

<keepalive-timeout>—Keepalive timeout (seconds).

<no-forwarding>—Do not use LDP ingress routes for forwarding.

<preference>—Route preference.

<session>—Configure session parameters.

<strict-targeted-hellos>—Do not send targeted hellos to unconfigured neighbors.

<traceoptions>—Trace options for LDP.

<track-igp-metric>—Track the IGP metric.

<traffic-statistics>—Collect statistics for LDP label-switched paths.

<transport-address>—Address used for TCP sessions.

- interface—Use interface address for TCP connections.
- loopback—Use loopback address for TCP connections.

<level> (configuration/protocols/isis)

Usage

```
<configuration>
  <protocols>
    <isis>
      <level>
        <name>name</name>     <!-- identifier -->
        <disable/>
        <authentication-key>authentication-key</authentication-key>
        <authentication-type>authentication-type-choice</authentication-type>
        <no-hello-authentication/>
        <no-csnp-authentication/>
        <no-psnp-authentication/>
        <wide-metrics-only/>
        <preference>preference</preference>
        <external-preference>external-preference</external-preference>
      </level>
    </isis>
  </protocols>
</configuration>
```

Description Configure global level attributes.

Contents <authentication-key>—Authentication key (password).

<authentication-type>—Authentication type.

- md5—MD5 authentication.
- simple—Simple password authentication.

<disable>—Disable IS-IS on this level.

<external-preference>—Preference of external routes.

<name>—IS-IS level number.

<no-csnp-authentication>—Disable authentication for CSN packets.

<no-hello-authentication>—Disable authentication for hello packets.

<no-psnp-authentication>—Disable authentication for PSN packets.

<preference>—Preference of internal routes.

<wide-metrics-only>—Generate wide metrics only.

<level> (configuration/protocols/isis/interface)

Usage

```
<configuration>
  <protocols>
    <isis>
      <interface>
        <level>
          <name>name</name>     <!-- identifier -->
          <disable/>
          <metric>metric</metric>
          <multicast-metric>multicast-metric</multicast-metric>
          <te-metric>te-metric</te-metric>
          <hello-authentication-key>hello-authentication-key</hello-authentication-key>
          <hello-authentication-type>hello-authentication</hello-authentication-type>
          <hello-interval>seconds</hello-interval>
          <hold-time>seconds</hold-time>
          <priority>priority</priority>
          <passive/>
        </level>
      </interface>
    </isis>
  </protocols>
</configuration>
```

Description Configure levels on this interface.

Contents <disable>—Disable IS-IS for this level.

<hello-authentication-key>—Authentication key (password) for hello packets.

<hello-authentication-type>—Authentication type for hello packets.

- md5—MD5 authentication.
- simple—Simple password authentication.

<hello-interval>—Interval between hello packet transmissions.

<hold-time>—Time after which neighbors think we are down.

<metric>—Metric for this level.

<multicast-metric>—Multicast metric for this level.

<name>—IS-IS level number.

<passive>—Don't run IS-IS at this level, but advertise the interface.

<priority>—Designated router election priority.

<te-metric>—Traffic engineering metric.

<level> (configuration/protocols/isis/label-switched-path)

Usage

```
<configuration>
  <protocols>
    <isis>
      <label-switched-path>
        <level>
          <name>name</name>     <!-- identifier -->
          <disable/>
          <metric>metric</metric>
        </level>
      </label-switched-path>
    </isis>
  </protocols>
</configuration>
```

Description Level to advertise this label-switched path.

Contents <disable>—Disable advertisements to this level.

<metric>—SPF metric for this level.

<name>—IS-IS level number.

<level> (configuration / routing-instances / instance / protocols / isis)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <isis>
          <level>
            <name>name</name>     <!-- identifier -->
            <disable/>
            <authentication-key>authentication-key</authentication-key>
            <authentication-type>authentication-type-choice</authentication-type>
            <no-hello-authentication/>
            <no-csnp-authentication/>
            <no-psnp-authentication/>
            <wide-metrics-only/>
            <preference>preference</preference>
            <external-preference>external-preference</external-preference>
          </level>
        </isis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure global level attributes.

Contents <authentication-key>—Authentication key (password).

<authentication-type>—Authentication type.

- md5—MD5 authentication.
- simple—Simple password authentication.

<disable>—Disable IS-IS on this level.

<external-preference>—Preference of external routes.

<name>—IS-IS level number.

<no-csnp-authentication>—Disable authentication for CSN packets.

<no-hello-authentication>—Disable authentication for hello packets.

<no-psnp-authentication>—Disable authentication for PSN packets.

<preference>—Preference of internal routes.

<wide-metrics-only>—Generate wide metrics only.

<level> (configuration / routing-instances / instance / protocols / isis / interface)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <isis>
          <interface>
            <level>
              <name>name</name>     <!-- identifier -->
              <disable/>
              <metric>metric</metric>
              <multicast-metric>multicast-metric</multicast-metric>
              <te-metric>te-metric</te-metric>
              <hello-authentication-key>key</hello-authentication-key>
              <hello-authentication-type>authentication-type</hello-authentication-type>
              <hello-interval>seconds</hello-interval>
              <hold-time>seconds</hold-time>
              <priority>priority</priority>
              <passive/>
            </level>
          </interface>
        </isis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure levels on this interface.

Contents <disable>—Disable IS-IS for this level.

<hello-authentication-key>—Authentication key (password) for hello packets.

<hello-authentication-type>—Authentication type for hello packets.

- md5—MD5 authentication.
- simple—Simple password authentication.

<hello-interval>—Interval between hello packet transmissions.

<hold-time>—Time after which neighbors think we are down.

<metric>—Metric for this level.

<multicast-metric>—Multicast metric for this level.

<name>—IS-IS level number.

<passive>—Don't run IS-IS at this level, but advertise the interface.

<priority>—Designated router election priority.

<te-metric>—Traffic engineering metric.

<level> (configuration/routing-instances/instance/protocols/isis/label-switched-path)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <protocols>
            <isis>
               <label-switched-path>
                  <level>
                     <name>name</name>     <!-- identifier -->
                     <disable/>
                     <metric>metric</metric>
                  </level>
               </label-switched-path>
            </isis>
         </protocols>
      </instance>
   </routing-instances>
</configuration>
```

Description Level to advertise this label-switched path.

Contents <disable>—Disable advertisements to this level.

<metric>—SPF metric for this level.

<name>—IS-IS level number.

<level> (configuration/routing-instances/instance/routing-options/options/syslog)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <options>
               <syslog>
                  <level>
                     <emergency/>
                     <alert/>
                     <critical/>
                     <error/>
                     <warning/>
                     <notice/>
                     <info/>
                     <debug/>
                  </level>
               </syslog>
            </options>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Logging level.

Contents <alert>—Alert level.

<critical>—Critical level.

<debug>—Debugging level.

<emergency>—Emergency level.

<error>—Error level.

<info>—Informational level.

<notice>—Notice level.

<warning>—Warning level.

<level> (configuration/routing-options/options/syslog)

Usage

```
<configuration>
  <routing-options>
    <options>
      <syslog>
        <level>
          <emergency/>
          <alert/>
          <critical/>
          <error/>
          <warning/>
          <notice/>
          <info/>
          <debug/>
        </level>
      </syslog>
    </options>
  </routing-options>
</configuration>
```

Description Logging level.

Contents <alert>—Alert level.

<critical>—Critical level.

<debug>—Debugging level.

<emergency>—Emergency level.

<error>—Error level.

<info>—Informational level.

<notice>—Notice level.

<warning>—Warning level.

<link-management> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <link-management>
      <te-link>...</te-link>
      <peer>...</peer>
      <traceoptions>...</traceoptions>
    </link-management>
  </protocols>
</configuration>
```

Description LMP options.

Contents <peer>—Define a network or LMP peer.

<te-link>—Traffic engineering link.

<traceoptions>—LMP trace options.

<link-protection> (configuration/protocols/rsvp/interface)

Usage

```
<configuration>
  <protocols>
    <rsvp>
      <interface>
        <link-protection>
          <disable/>
          <class-of-service>class-of-service</class-of-service>
          <bandwidth>bandwidth</bandwidth>
        </link-protection>
      </interface>
    </rsvp>
  </protocols>
</configuration>
```

Description Protect traffic with a label-stacked LSP.

Contents <bandwidth>—Bandwidth (bps) for the protection LSP.

<class-of-service>—Class of service for the protection LSP.

<disable>—Disable link protection on this interface.

<listen> (configuration/protocols/sap)

Usage

```
<configuration>
  <protocols>
    <sap>
      <listen>
        <name>name</name>     <!-- identifier -->
        <port>port</port>
      </listen>
    </sap>
  </protocols>
</configuration>
```

Description Address for SAP and SDP to listen on.

Contents <name>—IP address.

<port>—Port to listen for session advertisements.

<lmi> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <lmi>
        <n391dte>n391dte</n391dte>
        <n392dce>n392dce</n392dce>
        <n392dte>n392dte</n392dte>
        <n393dce>n393dce</n393dce>
        <n393dte>n393dte</n393dte>
        <t391dte>seconds</t391dte>
        <t392dce>seconds</t392dce>
        <lmi-type>lmi-type-choice</lmi-type>
      </lmi>
    </interface>
  </interfaces>
</configuration>
```

Description Local Management Interface settings.

Contents <lmi-type>—Specify the Frame Relay LMI type.

- ansi—Use ANSI Annex D LMI.
- itu—Use ITU Q933a Annex A LMI.

<n391dte>—DTE full status polling interval.

<n392dce>—DCE error threshold.

<n392dte>—DTE error threshold.

<n393dce>—DCE monitored event count.

<n393dte>—DTE monitored event count.

<t391dte>—DTE polling timer.

<t392dce>—DCE polling verification timer.

<load-balance> (configuration/policy-options/policy-statement/from/route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <load-balance>
            <per-packet/>
          </load-balance>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Type of load balancing in forwarding table.

Contents <per-packet>—Load balance on a per-packet basis.

<load-balance> (configuration/policy-options/policy-statement/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <load-balance>
            <per-packet/>
          </load-balance>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Type of load balancing in forwarding table.

Contents <per-packet>—Load balance on a per-packet basis.

<load-balance> (configuration/policy-options/policy-statement/term/from/route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <load-balance>
              <per-packet/>
            </load-balance>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Type of load balancing in forwarding table.

Contents <per-packet>—Load balance on a per-packet basis.

<load-balance> (configuration/policy-options/policy-statement/term/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <load-balance>
              <per-packet/>
            </load-balance>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Type of load balancing in forwarding table.

Contents <per-packet>—Load balance on a per-packet basis.

<load-balance> (configuration / policy-options / policy-statement / term / then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <load-balance>
            <per-packet/>
          </load-balance>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Type of load balancing in forwarding table.

Contents <per-packet>—Load balance on a per-packet basis.

<load-balance> (configuration / policy-options / policy-statement / then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <then>
        <load-balance>
          <per-packet/>
        </load-balance>
      </then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Type of load balancing in forwarding table.

Contents <per-packet>—Load balance on a per-packet basis.

<local> (configuration/protocols/pim/rp)

Usage

```
<configuration>
  <protocols>
    <pim>
      <rp>
        <local>
          <disable/>
          <family>...</family>
        </local>
      </rp>
    </pim>
  </protocols>
</configuration>
```

Description Router's local RP properties.

Contents <disable>—Disable this RP.

<family>—Local RP address family.

<local> (configuration/routing-instances/instance/protocols/pim/rp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <rp>
            <local>
              <disable/>
              <family>...</family>
            </local>
          </rp>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Router's local RP properties.

Contents <disable>—Disable this RP.

<family>—Local RP address family.

<local> (configuration/security/certificates)

Usage

```
<configuration>
  <security>
    <certificates>
      <local>
        <name>name</name>     <!-- identifier -->
        <load-key-file>load-key-file</load-key-file>
      </local>
    </certificates>
  </security>
</configuration>
```

Description Local X.509 certificate configuration.

Contents <load-key-file>—File (URL) containing an SSL certificate and private key in PEM format.

<name>—Simple name to identify this certificate.

<local-as> (configuration/protocols/bgp)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <local-as>
        <as-number>as-number</as-number>     <!-- mandatory -->
        <loops>loops</loops>
        <private/>
      </local-as>
    </bgp>
  </protocols>
</configuration>
```

Description Local autonomous system number.

Contents <as-number>—Local autonomous system number.

<loops>—Maximum number of times this AS can be in an AS path.

<private>—Hide this local AS in paths learned from this peering.

<local-as> (configuration/protocols/bgp/group)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <local-as>
          <as-number>as-number</as-number>     <!-- mandatory -->
          <loops>loops</loops>
          <private/>
        </local-as>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Local autonomous system number.

Contents <as-number>—Local autonomous system number.

<loops>—Maximum number of times this AS can be in an AS path.

<private>—Hide this local AS in paths learned from this peering.

<local-as> (configuration/protocols/bgp/group/neighbor)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <local-as>
            <as-number>as-number</as-number>     <!-- mandatory -->
            <loops>loops</loops>
            <private/>
          </local-as>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Local autonomous system number.

Contents <as-number>—Local autonomous system number.

<loops>—Maximum number of times this AS can be in an AS path.

<private>—Hide this local AS in paths learned from this peering.

<local-as> (configuration/routing-instances/instance/protocols/bgp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <local-as>
            <as-number>as-number</as-number>     <!-- mandatory -->
            <loops>loops</loops>
            <private/>
          </local-as>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Local autonomous system number.

Contents <as-number>—Local autonomous system number.

<loops>—Maximum number of times this AS can be in an AS path.

<private>—Hide this local AS in paths learned from this peering.

<local-as> (configuration/routing-instances/instance/protocols/bgp/group)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <local-as>
              <as-number>as-number</as-number>     <!-- mandatory -->
              <loops>loops</loops>
              <private/>
            </local-as>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Local autonomous system number.

Contents <as-number>—Local autonomous system number.

<loops>—Maximum number of times this AS can be in an AS path.

<private>—Hide this local AS in paths learned from this peering.

<local-as> (configuration/routing-instances/instance/protocols/bgp/group/neighbor)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <local-as>
                <as-number>as-number</as-number>     <!-- mandatory -->
                <loops>loops</loops>
                <private/>
              </local-as>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Local autonomous system number.

Contents <as-number>—Local autonomous system number.

<loops>—Maximum number of times this AS can be in an AS path.

<private>—Hide this local AS in paths learned from this peering.

<local-preference> (configuration/policy-options/policy-statement/from/route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <local-preference>
            <local-preference>local-preference</local-preference>
            <add>add</add>
            <subtract>subtract</subtract>
          </local-preference>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Local preference associated with a route.

Contents <add>—Add constant to attribute.

<local-preference>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<local-preference> (configuration/policy-options/policy-statement/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <local-preference>
            <local-preference>local-preference</local-preference>
            <add>add</add>
            <subtract>subtract</subtract>
          </local-preference>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Local preference associated with a route.

Contents <add>—Add constant to attribute.

<local-preference>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<local-preference> (configuration/policy-options/policy-statement/term/from/route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <local-preference>
              <local-preference>local-preference</local-preference>
              <add>add</add>
              <subtract>subtract</subtract>
            </local-preference>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Local preference associated with a route.

Contents <add>—Add constant to attribute.

<local-preference>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<local-preference> (configuration/policy-options/policy-statement/term/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <local-preference>
              <local-preference>local-preference</local-preference>
              <add>add</add>
              <subtract>subtract</subtract>
            </local-preference>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Local preference associated with a route.

Contents <add>—Add constant to attribute.

<local-preference>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<local-preference> (configuration/policy-options/policy-statement/term/then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <local-preference>
            <local-preference>local-preference</local-preference>
            <add>add</add>
            <subtract>subtract</subtract>
          </local-preference>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Local preference associated with a route.

Contents <add>—Add constant to attribute.

<local-preference>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<local-preference> (configuration / policy-options / policy-statement / then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <then>
        <local-preference>
          <local-preference>local-preference</local-preference>
          <add>add</add>
          <subtract>subtract</subtract>
        </local-preference>
      </then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Local preference associated with a route.

Contents <add>—Add constant to attribute.

<local-preference>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<location> (configuration / system)

Usage

```
<configuration>
  <system>
    <location>
      <country-code>country-code</country-code>
      <postal-code>postal-code</postal-code>
      <npa-nxx>npa-nxx</npa-nxx>
      <latitude>latitude</latitude>
      <longitude>longitude</longitude>
      <altitude>altitude</altitude>
      <lata>lata</lata>
      <vcoord>vcoord</vcoord>
      <hcoord>hcoord</hcoord>
    </location>
  </system>
</configuration>
```

Description Location of the system, in various forms.

Contents <altitude>—Feet above (or below) sea level.

<country-code>—Two-letter country code.

<hcoord>—Bellcore horizontal coordinate.

<lata>—Long-distance service area.

<latitude>—Latitude in degree format.

<longitude>—Longitude in degree format.

<npa-nxx>—First six digits of phone number (area code plus exchange).

<postal-code>—Zip code or postal code.

<vcoord>—Bellcore vertical coordinate.

<log-updown> (configuration/protocols/mpls)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <log-updown>
        <syslog/>
        <trap/>
      </log-updown>
    </mpls>
  </protocols>
</configuration>
```

Description Logging actions for LSP up/down events.

Contents <syslog>—Send system log messages.

<trap>—Send SNMP traps.

<logging> (configuration/services)

Usage

```
<configuration>
  <services>
    <logging>
      <traceoptions>...</traceoptions>
    </logging>
  </services>
</configuration>
```

Description Bulk logging configuration.

Contents <traceoptions>—Fsad trace options.

<logical-apn> (configuration/services/ggsn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <logical-apn>
        <name>name</name>     <!-- identifier -->
        <access-type>access-type-choice</access-type>
        <apn>...</apn>
      </logical-apn>
    </ggsn>
  </services>
</configuration>
```

Description Logical access point name configuration.

Contents <access-type>—Type of APN.

- public—Publicly accessible.
- restricted—Subscribed access only.

<apn>—No documentation is available yet.

<name>—Logical access point identifier.

<login> (configuration/system)

Usage

```
<configuration>
  <system>
    <login>
      <message>message</message>
      <class>...</class>
      <user>...</user>
    </login>
  </system>
</configuration>
```

Description Names, login classes, and passwords for users.

Contents <class>—Login class.

<message>—System login message.

<user>—Username.

<loss-priority> (configuration/class-of-service/classifiers/dscp/forwarding-class)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <dscp>
        <forwarding-class>
          <loss-priority>
            <name>name</name>     <!-- identifier -->
            <code-points>...</code-points>     <!-- mandatory -->
          </loss-priority>
        </forwarding-class>
      </dscp>
    </classifiers>
  </class-of-service>
</configuration>
```

Description Classify code points to a loss priority.

Contents <code-points>—List of code point aliases and/or bit strings.

<name>—No documentation is available yet.

- high—Code points to classify to loss priority high.
- low—Code points to classify to loss priority low.

<loss-priority> (configuration/class-of-service/classifiers/exp/forwarding-class)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <exp>
        <forwarding-class>
          <loss-priority>
            <name>name</name>     <!-- identifier -->
            <code-points>...</code-points>     <!-- mandatory -->
          </loss-priority>
        </forwarding-class>
      </exp>
    </classifiers>
  </class-of-service>
</configuration>
```

Description Classify code points to a loss priority.

Contents <code-points>—List of code point aliases and/or bit strings.

<name>—No documentation is available yet.

- high—Code points to classify to loss priority high.
- low—Code points to classify to loss priority low.

<loss-priority> (configuration / class-of-service / classifiers / ieee-802.1 / forwarding-class)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <ieee-802.1>
        <forwarding-class>
          <loss-priority>
            <name>name</name>     <!-- identifier -->
            <code-points>...</code-points>     <!-- mandatory -->
          </loss-priority>
        </forwarding-class>
      </ieee-802.1>
    </classifiers>
  </class-of-service>
</configuration>
```

Description Classify code points to a loss priority.

Contents <code-points>—List of code point aliases and/or bit strings.

<name>—No documentation is available yet.

- high—Code points to classify to loss priority high.
- low—Code points to classify to loss priority low.

<loss-priority> (configuration / class-of-service / classifiers / inet-precedence / forwarding-class)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <inet-precedence>
        <forwarding-class>
          <loss-priority>
            <name>name</name>     <!-- identifier -->
            <code-points>...</code-points>     <!-- mandatory -->
          </loss-priority>
        </forwarding-class>
      </inet-precedence>
    </classifiers>
  </class-of-service>
</configuration>
```

Description Classify code points to a loss priority.

Contents <code-points>—List of code point aliases and/or bit strings.

<name>—No documentation is available yet.

- high—Code points to classify to loss priority high.
- low—Code points to classify to loss priority low.

<loss-priority> (configuration/class-of-service/rewrite-rules/dscp/forwarding-class)

Usage

```
<configuration>
  <class-of-service>
    <rewrite-rules>
      <dscp>
        <forwarding-class>
          <loss-priority>
            <name>name</name>     <!-- identifier -->
            <code-point>code-point</code-point>     <!-- mandatory -->
          </loss-priority>
        </forwarding-class>
      </dscp>
    </rewrite-rules>
  </class-of-service>
</configuration>
```

Description Code point marking based on loss priority.

Contents <code-point>—Code point aliases or bit string.

<name>—No documentation is available yet.

- high—Marking when loss priority is high.
- low—Marking when loss priority is low.

<loss-priority> (configuration/class-of-service/rewrite-rules/exp/forwarding-class)

Usage

```
<configuration>
  <class-of-service>
    <rewrite-rules>
      <exp>
        <forwarding-class>
          <loss-priority>
            <name>name</name>     <!-- identifier -->
            <code-point>code-point</code-point>     <!-- mandatory -->
          </loss-priority>
        </forwarding-class>
      </exp>
    </rewrite-rules>
  </class-of-service>
</configuration>
```

Description Code point marking based on loss priority.

Contents <code-point>—Code point aliases or bit string.

<name>—No documentation is available yet.

- high—Marking when loss priority is high.
- low—Marking when loss priority is low.

<loss-priority> (configuration / class-of-service / rewrite-rules / inet-precedence / forwarding-class)

Usage

```
<configuration>
  <class-of-service>
    <rewrite-rules>
      <inet-precedence>
        <forwarding-class>
          <loss-priority>
            <name>name</name>     <!-- identifier -->
            <code-point>code-point</code-point>     <!-- mandatory -->
          </loss-priority>
        </forwarding-class>
      </inet-precedence>
    </rewrite-rules>
  </class-of-service>
</configuration>
```

Description Code point marking based on loss priority.

Contents <code-point>—Code point aliases or bit string.

<name>—No documentation is available yet.

- high—Marking when loss priority is high.
- low—Marking when loss priority is low.

<lsp-attributes> (configuration / protocols / mpls / label-switched-path)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <lsp-attributes>
          <signal-type>signal-type-choice</signal-type>
          <switching-type>switching-type-choice</switching-type>     <!-- mandatory -->
          <gpid>gpid-choice</gpid>
        </lsp-attributes>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Attributes for generalized LSP.

Contents <gpid>—Generalized PID.

- ethernet—No documentation is available yet.
- hdlc—No documentation is available yet.
- ipv4—No documentation is available yet.
- ppp—No documentation is available yet.

<signal-type>—Signal type for the LSP.

- 10gigE—10000.00 Mbps.
- ds1—1.544 Mbps.
- ds3—44.736 Mbps.
- e1—2.048 Mbps.
- e3—34.368 Mbps.
- ethernet—10 Mbps.
- fastE—100.00 Mbps.
- gigE—1000.00 Mbps.
- stm-1—155.52 Mbps.
- stm-16—2488.32 Mbps.
- stm-4—622.08 Mbps.
- stm-64—9953.28 Mbps.
- sts-1—51.84 Mbps.

<switching-type>—LSP switching capability.

- fiber—No documentation is available yet.
- lambda—No documentation is available yet.
- psc-1—No documentation is available yet.
- tdm—No documentation is available yet.

<lsp-next-hop> (configuration / class-of-service / forwarding-policy / next-hop-map / forwarding-class)

Usage

```
<configuration>
  <class-of-service>
    <forwarding-policy>
      <next-hop-map>
        <forwarding-class>
          <lsp-next-hop>
            <name>name</name>     <!-- identifier -->
          </lsp-next-hop>
        </forwarding-class>
      </next-hop-map>
    </forwarding-policy>
  </class-of-service>
</configuration>
```

Description Regular expression for LSP next hop.

Contents <name>—Regular expression for LSP next hop.

<lsp-next-hop> (configuration / routing-instances / instance / routing-options / rib / static / route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <route>
              <lsp-next-hop>
                <name>name</name>     <!-- identifier -->
                <preference>preference</preference>
                <metric>metric</metric>
              </lsp-next-hop>
            </route>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description LSP next hop.

Contents <metric>—Metric of LSP next hop.

<name>—LSP to use to reach destination.

<preference>—Preference of LSP next hop.

<lsp-next-hop> (configuration/routing-instances/instance/routing-options/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <route>
            <lsp-next-hop>
              <name>name</name>     <!-- identifier -->
              <preference>preference</preference>
              <metric>metric</metric>
            </lsp-next-hop>
          </route>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description LSP next hop.

Contents <metric>—Metric of LSP next hop.

<name>—LSP to use to reach destination.

<preference>—Preference of LSP next hop.

<lsp-next-hop> (configuration/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <route>
          <lsp-next-hop>
            <name>name</name>     <!-- identifier -->
            <preference>preference</preference>
            <metric>metric</metric>
          </lsp-next-hop>
        </route>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description LSP next hop.

Contents <metric>—Metric of LSP next hop.

<name>—LSP to use to reach destination.

<preference>—Preference of LSP next hop.

<lsp-next-hop> (configuration/routing-options/static/route)

Usage

```
<configuration>
  <routing-options>
    <static>
      <route>
        <lsp-next-hop>
          <name>name</name>     <!-- identifier -->
          <preference>preference</preference>
          <metric>metric</metric>
        </lsp-next-hop>
      </route>
    </static>
  </routing-options>
</configuration>
```

Description LSP next hop.

Contents <metric>—Metric of LSP next hop.

<name>—LSP to use to reach destination.

<preference>—Preference of LSP next hop.

<lsp-switch> (configuration/protocols/connections)

Usage

```
<configuration>
  <protocols>
    <connections>
      <lsp-switch>
        <name>name</name>     <!-- identifier -->
        <transmit-lsp>transmit-lsp</transmit-lsp>     <!-- mandatory -->
        <receive-lsp>receive-lsp</receive-lsp>     <!-- mandatory -->
      </lsp-switch>
    </connections>
  </protocols>
</configuration>
```

Description Unidirectional switch between two label-switched paths.

Contents <name>—Name of label-switched path switch.

<receive-lsp>—Name of incoming label-switched path.

<transmit-lsp>—Name of outgoing label-switched path.

<management-ethernet> (configuration/chassis/alarm)

Usage

```
<configuration>
  <chassis>
    <alarm>
      <management-ethernet>
        <link-down>link-down-choice</link-down>
      </management-ethernet>
    </alarm>
  </chassis>
</configuration>
```

Description Management Ethernet alarms.

Contents <link-down>—Link has gone down.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<manual> (configuration/security/ipsec/security-association)

Usage

```
<configuration>
  <security>
    <ipsec>
      <security-association>
        <manual>
          <direction>...</direction>
        </manual>
      </security-association>
    </ipsec>
  </security>
</configuration>
```

Description Define a manual IPSec security association.

Contents <direction>—Define the direction of the security association.

<martians> (configuration/routing-instances/instance/routing-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <martians>
          <address>address</address>     <!-- identifier -->
          <exact/>     <!-- identifier -->
          <longer/>     <!-- identifier -->
          <orlonger/>     <!-- identifier -->
          <upto>upto</upto>     <!-- identifier -->
          <through>through</through>     <!-- identifier -->
          <prefix-length-range>prefix-length-range</prefix-length-range>     <!-- identifier -->
          <allow/>
        </martians>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Invalid routes.

Contents <address>—IP address or hostname.

<allow>—No documentation is available yet.

<exact>—Exactly match the prefix length.

<longer>—Mask is greater than the prefix length.

<orlonger>—Mask is greater than or equal to the prefix length.

<prefix-length-range>—Mask falls between two prefix lengths.

<through>—Route falls between two prefixes.

<upto>—Mask falls between two prefix lengths.

<martians> (configuration/routing-instances/instance/routing-options/rib)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <martians>
            <address>address</address>     <!-- identifier -->
            <exact/>     <!-- identifier -->
            <longer/>     <!-- identifier -->
            <orlonger/>     <!-- identifier -->
            <upto>upto</upto>     <!-- identifier -->
            <through>through</through>     <!-- identifier -->
            <prefix-length-range>prefix-length-range</prefix-length-range> <!-- identifier -->
            <allow/>
          </martians>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Invalid routes.

Contents <address>—IP address or hostname.

<allow>—No documentation is available yet.

<exact>—Exactly match the prefix length.

<longer>—Mask is greater than the prefix length.

<orlonger>—Mask is greater than or equal to the prefix length.

<prefix-length-range>—Mask falls between two prefix lengths.

<through>—Route falls between two prefixes.

<upto>—Mask falls between two prefix lengths.

<martians> (configuration/routing-options)

Usage

```
<configuration>
  <routing-options>
    <martians>
      <address>address</address>     <!-- identifier -->
      <exact/>     <!-- identifier -->
      <longer/>     <!-- identifier -->
      <orlonger/>     <!-- identifier -->
      <upto>upto</upto>     <!-- identifier -->
      <through>through</through>     <!-- identifier -->
      <prefix-length-range>prefix-length-range</prefix-length-range>     <!-- identifier -->
      <allow/>
    </martians>
  </routing-options>
</configuration>
```

Description Invalid routes.

Contents

<address>—IP address or hostname.

<allow>—No documentation is available yet.

<exact>—Exactly match the prefix length.

<longer>—Mask is greater than the prefix length.

<orlonger>—Mask is greater than or equal to the prefix length.

<prefix-length-range>—Mask falls between two prefix lengths.

<through>—Route falls between two prefixes.

<upto>—Mask falls between two prefix lengths.

<martians> (configuration/routing-options/rib)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <martians>
        <address>address</address>     <!-- identifier -->
        <exact/>     <!-- identifier -->
        <longer/>     <!-- identifier -->
        <orlonger/>     <!-- identifier -->
        <upto>upto</upto>     <!-- identifier -->
        <through>through</through>     <!-- identifier -->
        <prefix-length-range>prefix-length-range</prefix-length-range>     <!-- identifier -->
        <allow/>
      </martians>
    </rib>
  </routing-options>
</configuration>
```

Description Invalid routes.

Contents <address>—IP address or hostname.

<allow>—No documentation is available yet.

<exact>—Exactly match the prefix length.

<longer>—Mask is greater than the prefix length.

<orlonger>—Mask is greater than or equal to the prefix length.

<prefix-length-range>—Mask falls between two prefix lengths.

<through>—Route falls between two prefixes.

<upto>—Mask falls between two prefix lengths.

<maximum-routes> (configuration / routing-instances / instance / routing-options)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <maximum-routes>
               <limit>limit</limit>     <!-- mandatory -->
               <threshold>threshold</threshold>
               <log-only/>
            </maximum-routes>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Maximum number of routes.

Contents <limit>—Maximum number of routes.

<log-only>—Generate warning messages only.

<threshold>—Percentage of limit to start warnings.

<maximum-routes> (configuration / routing-instances / instance / routing-options / rib)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <rib>
               <maximum-routes>
                  <limit>limit</limit>     <!-- mandatory -->
                  <threshold>threshold</threshold>
                  <log-only/>
               </maximum-routes>
            </rib>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Maximum number of routes.

Contents <limit>—Maximum number of routes.

<log-only>—Generate warning messages only.

<threshold>—Percentage of limit to start warnings.

<maximum-routes> (configuration/routing-options)

Usage

```
<configuration>
  <routing-options>
    <maximum-routes>
      <limit>limit</limit>     <!-- mandatory -->
      <threshold>threshold</threshold>
      <log-only/>
    </maximum-routes>
  </routing-options>
</configuration>
```

Description Maximum number of routes.

Contents <limit>—Maximum number of routes.

<log-only>—Generate warning messages only.

<threshold>—Percentage of limit to start warnings.

<maximum-routes> (configuration/routing-options/rib)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <maximum-routes>
        <limit>limit</limit>     <!-- mandatory -->
        <threshold>threshold</threshold>
        <log-only/>
      </maximum-routes>
    </rib>
  </routing-options>
</configuration>
```

Description Maximum number of routes.

Contents <limit>—Maximum number of routes.

<log-only>—Generate warning messages only.

<threshold>—Percentage of limit to start warnings.

<members> (configuration/policy-options/community)

Usage

```
<configuration>
  <policy-options>
    <community>
      <members>
        <name>name</name>     <!-- identifier -->
      </members>
    </community>
  </policy-options>
</configuration>
```

Description Community members.

Contents <name>—Community members.

<members> (configuration/routing-instances/instance/routing-options/confederation)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <confederation>
          <members>
            <name>name</name>     <!-- identifier -->
          </members>
        </confederation>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Autonomous system numbers of confederation members.

Contents <name>—Autonomous system numbers of confederation members.

<members> (configuration/routing-options/confederation)

Usage

```
<configuration>
  <routing-options>
    <confederation>
      <members>
        <name>name</name>     <!-- identifier -->
      </members>
    </confederation>
  </routing-options>
</configuration>
```

Description Autonomous system numbers of confederation members.

Contents <name>—Autonomous system numbers of confederation members.

<mesh-group> (configuration/protocols/isis/interface)

Usage

```
<configuration>
  <protocols>
    <isis>
      <interface>
        <mesh-group>
          <mesh-group-number>mesh-group-number</mesh-group-number>
          <blocked/>
        </mesh-group>
      </interface>
    </isis>
  </protocols>
</configuration>
```

Description Add the interface to a mesh group.

Contents <blocked>—Do not flood new LSPs on this interface.

<mesh-group-number>—Mesh group number for this interface.

<mesh-group> (configuration/routing-instances/instance/protocols/isis/interface)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <isis>
          <interface>
            <mesh-group>
              <mesh-group-number>mesh-group-number</mesh-group-number>
              <blocked/>
            </mesh-group>
          </interface>
        </isis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Add the interface to a mesh group.

Contents <blocked>—Do not flood new LSPs on this interface.

<mesh-group-number>—Mesh group number for this interface.

<message-attributes> (configuration/services/ggsn/apn/radius/accounting)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <radius>
          <accounting>
            <message-attributes>
              <apn-identifier/>
              <apn-selection-mode/>
              <charging-gateway/>
              <charging-characteristics/>
              <ggsn-address/>
              <gprs-quality-of-service/>
              <imsi/>
              <mcc-mnc/>
              <msisdn/>
              <msisdn-value>msisdn-value</msisdn-value>
              <nsapi/>
              <pdp-type/>
              <sgsn-address/>
              <user-value>user-value</user-value>
              <nas-port/>
              <nas-port-value>nas-port-value</nas-port-value>
              <charging-identifier/>
              <session-stop/>
            </message-attributes>
          </accounting>
        </radius>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description Attributes in RADIUS messages.

Contents <apn-identifier>—RADIUS messages include APN name.

<apn-selection-mode>—RADIUS messages include APN selection information.

<charging-characteristics>—RADIUS messages include charging characteristics.

<charging-gateway>—RADIUS messages include charging gateway address.

<charging-identifier>—RADIUS messages includes user charging identifier.

<ggsn-address>—RADIUS messages include GGSN node address.

<gprs-quality-of-service>—RADIUS messages include GPRS quality of service.

<imsi>—RADIUS messages include IMSI.

<mcc-mnc>—RADIUS messages include MCC-MNC information.

<msisdn>—RADIUS messages include MSISDN.

<msisdn-value>—MSISDN set to this value in RADIUS messages.

<nas-port>—RADIUS messages include NAS port attribute.

<nas-port-value>—NAS port set to this value in RADIUS messages.

<nsapi>—RADIUS messages include NSAPI.

<pdp-type>—RADIUS messages include PDP type.

<session-stop>—Send session stop message.

<sgsn-address>—RADIUS messages include SGSN address.

<user-value>—Username set to this value in RADIUS messages.

<message-attributes> (configuration/services/ggsn/apn/radius/authentication)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <radius>
          <authentication>
            <message-attributes>
              <apn-identifier/>
              <apn-selection-mode/>
              <charging-gateway/>
              <charging-characteristics/>
              <ggsn-address/>
              <gprs-quality-of-service/>
              <imsi/>
              <mcc-mnc/>
              <msisdn/>
              <msisdn-value>msisdn-value</msisdn-value>
              <nsapi/>
              <pdp-type/>
              <sgsn-address/>
              <user-value>user-value</user-value>
              <nas-port/>
              <nas-port-value>nas-port-value</nas-port-value>
              <user-password-value>user-password-value</user-password-value>
            </message-attributes>
          </authentication>
        </radius>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description Attributes in RADIUS messages.

Contents <apn-identifier>—RADIUS messages include APN name.

<apn-selection-mode>—RADIUS messages include APN selection information.

<charging-characteristics>—RADIUS messages include charging characteristics.

<charging-gateway>—RADIUS messages include charging gateway address.

<ggsn-address>—RADIUS messages include GGSN node address.

<gprs-quality-of-service>—RADIUS messages include GPRS quality of service.

<imsi>—RADIUS messages include IMSI.

<mcc-mnc>—RADIUS messages include MCC-MNC information.

<msisdn>—RADIUS messages include MSISDN.

<msisdn-value>—MSISDN set to this value in RADIUS messages.

<nas-port>—RADIUS messages include NAS port attribute.

<nas-port-value>—NAS port set to this value in RADIUS messages.

<nsapi>—RADIUS messages include NSAPI.

<pdp-type>—RADIUS messages include PDP type.

<sgsn-address>—RADIUS messages include SGSN address.

<user-password-value>—User password set to this value in messages.

<user-value>—Username set to this value in RADIUS messages.

<metric> (configuration/policy-options/policy-statement/from/route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <metric>
            <metric>metric</metric>
            <add>add</add>
            <subtract>subtract</subtract>
            <igp>...</igp>
            <minimum-igp>...</minimum-igp>
          </metric>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value.

Contents <add>—Add constant to attribute.

<igp>—Track the IGP metric (BGP only).

<metric>—No documentation is available yet.

<minimum-igp>—Track the minimum IGP metric (BGP only).

<subtract>—Subtract constant from attribute.

<metric> (configuration/policy-options/policy-statement/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <metric>
            <metric>metric</metric>
            <add>add</add>
            <subtract>subtract</subtract>
            <igp>...</igp>
            <minimum-igp>...</minimum-igp>
          </metric>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value.

Contents <add>—Add constant to attribute.

<igp>—Track the IGP metric (BGP only).

<metric>—No documentation is available yet.

<minimum-igp>—Track the minimum IGP metric (BGP only).

<subtract>—Subtract constant from attribute.

<metric> (configuration/policy-options/policy-statement/term/from/route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <metric>
              <metric>metric</metric>
              <add>add</add>
              <subtract>subtract</subtract>
              <igp>...</igp>
              <minimum-igp>...</minimum-igp>
            </metric>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value.

Contents <add>—Add constant to attribute.

<igp>—Track the IGP metric (BGP only).

<metric>—No documentation is available yet.

<minimum-igp>—Track the minimum IGP metric (BGP only).

<subtract>—Subtract constant from attribute.

<metric> (configuration/policy-options/policy-statement/term/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <metric>
              <metric>metric</metric>
              <add>add</add>
              <subtract>subtract</subtract>
              <igp>...</igp>
              <minimum-igp>...</minimum-igp>
            </metric>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value.

Contents <add>—Add constant to attribute.

<igp>—Track the IGP metric (BGP only).

<metric>—No documentation is available yet.

<minimum-igp>—Track the minimum IGP metric (BGP only).

<subtract>—Subtract constant from attribute.

<metric> (configuration/policy-options/policy-statement/term/then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <metric>
            <metric>metric</metric>
            <add>add</add>
            <subtract>subtract</subtract>
            <igp>...</igp>
            <minimum-igp>...</minimum-igp>
          </metric>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value.

Contents <add>—Add constant to attribute.

<igp>—Track the IGP metric (BGP only).

<metric>—No documentation is available yet.

<minimum-igp>—Track the minimum IGP metric (BGP only).

<subtract>—Subtract constant from attribute.

<metric> (configuration/policy-options/policy-statement/then)

Usage

```
<configuration>
   <policy-options>
      <policy-statement>
         <then>
            <metric>
               <metric>metric</metric>
               <add>add</add>
               <subtract>subtract</subtract>
               <igp>...</igp>
               <minimum-igp>...</minimum-igp>
            </metric>
         </then>
      </policy-statement>
   </policy-options>
</configuration>
```

Description Metric value.

Contents <add>—Add constant to attribute.

<igp>—Track the IGP metric (BGP only).

<metric>—No documentation is available yet.

<minimum-igp>—Track the minimum IGP metric (BGP only).

<subtract>—Subtract constant from attribute.

<metric> (configuration / routing-instances / instance / routing-options / aggregate / defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <defaults>
            <metric>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric>
          </defaults>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration / routing-instances / instance / routing-options / aggregate / route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <route>
            <metric>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric>
          </route>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration / routing-instances / instance / routing-options / generate / defaults)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <generate>
               <defaults>
                  <metric>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </metric>
               </defaults>
            </generate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration / routing-instances / instance / routing-options / generate / route)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <generate>
               <route>
                  <metric>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </metric>
               </route>
            </generate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration/routing-instances/instance/routing-options/rib/aggregate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <defaults>
              <metric>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric>
            </defaults>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration/routing-instances/instance/routing-options/rib/aggregate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <route>
              <metric>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric>
            </route>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration / routing-instances / instance / routing-options / rib / generate / defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <defaults>
              <metric>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric>
            </defaults>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration / routing-instances / instance / routing-options / rib / generate / route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <route>
              <metric>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric>
            </route>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration/routing-instances/instance/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <defaults>
              <metric>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric>
            </defaults>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration/routing-instances/instance/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <route>
              <metric>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric>
            </route>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration / routing-instances / instance / routing-options / static / defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <defaults>
            <metric>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric>
          </defaults>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration / routing-instances / instance / routing-options / static / route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <route>
            <metric>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric>
          </route>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration / routing-options / aggregate / defaults)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <defaults>
        <metric>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric>
      </defaults>
    </aggregate>
  </routing-options>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration / routing-options / aggregate / route)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <route>
        <metric>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric>
      </route>
    </aggregate>
  </routing-options>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration / routing-options / generate / defaults)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <defaults>
        <metric>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric>
      </defaults>
    </generate>
  </routing-options>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration / routing-options / generate / route)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <route>
        <metric>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric>
      </route>
    </generate>
  </routing-options>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration/routing-options/rib/aggregate/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <defaults>
          <metric>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric>
        </defaults>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration/routing-options/rib/aggregate/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <route>
          <metric>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric>
        </route>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration / routing-options / rib / generate / defaults)

Usage

```
<configuration>
   <routing-options>
      <rib>
         <generate>
            <defaults>
               <metric>
                  <metric-value>metric-value</metric-value>     <!-- mandatory -->
                  <type>type</type>
               </metric>
            </defaults>
         </generate>
      </rib>
   </routing-options>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration / routing-options / rib / generate / route)

Usage

```
<configuration>
   <routing-options>
      <rib>
         <generate>
            <route>
               <metric>
                  <metric-value>metric-value</metric-value>     <!-- mandatory -->
                  <type>type</type>
               </metric>
            </route>
         </generate>
      </rib>
   </routing-options>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <defaults>
          <metric>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric>
        </defaults>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <route>
          <metric>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric>
        </route>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <static>
      <defaults>
        <metric>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric>
      </defaults>
    </static>
  </routing-options>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric> (configuration/routing-options/static/route)

Usage

```
<configuration>
  <routing-options>
    <static>
      <route>
        <metric>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric>
      </route>
    </static>
  </routing-options>
</configuration>
```

Description Metric value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric-out> (configuration/protocols/bgp)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <metric-out>
        <metric-value>metric-value</metric-value>
        <minimum-igp>...</minimum-igp>
        <igp>...</igp>
      </metric-out>
    </bgp>
  </protocols>
</configuration>
```

Description Route metric sent in MED.

Contents <igp>—Track the IGP metric.

<metric-value>—Metric value.

<minimum-igp>—Track the minimum IGP metric.

<metric-out> (configuration/protocols/bgp/group)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <metric-out>
          <metric-value>metric-value</metric-value>
          <minimum-igp>...</minimum-igp>
          <igp>...</igp>
        </metric-out>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Route metric sent in MED.

Contents <igp>—Track the IGP metric.

<metric-value>—Metric value.

<minimum-igp>—Track the minimum IGP metric.

<metric-out> (configuration/protocols/bgp/group/neighbor)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <metric-out>
            <metric-value>metric-value</metric-value>
            <minimum-igp>...</minimum-igp>
            <igp>...</igp>
          </metric-out>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Route metric sent in MED.

Contents <igp>—Track the IGP metric.

<metric-value>—Metric value.

<minimum-igp>—Track the minimum IGP metric.

<metric-out> (configuration/routing-instances/instance/protocols/bgp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <metric-out>
            <metric-value>metric-value</metric-value>
            <minimum-igp>...</minimum-igp>
            <igp>...</igp>
          </metric-out>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Route metric sent in MED.

Contents <igp>—Track the IGP metric.

<metric-value>—Metric value.

<minimum-igp>—Track the minimum IGP metric.

<metric-out> (configuration/routing-instances/instance/protocols/bgp/group)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <metric-out>
              <metric-value>metric-value</metric-value>
              <minimum-igp>...</minimum-igp>
              <igp>...</igp>
            </metric-out>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Route metric sent in MED.

Contents <igp>—Track the IGP metric.

<metric-value>—Metric value.

<minimum-igp>—Track the minimum IGP metric.

<metric-out> (configuration/routing-instances/instance/protocols/bgp/group/neighbor)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <metric-out>
                <metric-value>metric-value</metric-value>
                <minimum-igp>...</minimum-igp>
                <igp>...</igp>
              </metric-out>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Route metric sent in MED.

Contents <igp>—Track the IGP metric.

<metric-value>—Metric value.

<minimum-igp>—Track the minimum IGP metric.

<metric2> (configuration/policy-options/policy-statement/from/route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <metric2>
            <metric2>metric2</metric2>
            <add>add</add>
            <subtract>subtract</subtract>
          </metric2>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value 2.

Contents <add>—Add constant to attribute.

<metric2>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<metric2> (configuration/policy-options/policy-statement/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <metric2>
            <metric2>metric2</metric2>
            <add>add</add>
            <subtract>subtract</subtract>
          </metric2>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value 2.

Contents <add>—Add constant to attribute.

<metric2>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<metric2> (configuration/policy-options/policy-statement/term/from/route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <metric2>
              <metric2>metric2</metric2>
              <add>add</add>
              <subtract>subtract</subtract>
            </metric2>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value 2.

Contents <add>—Add constant to attribute.

<metric2>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<metric2> (configuration/policy-options/policy-statement/term/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <metric2>
              <metric2>metric2</metric2>
              <add>add</add>
              <subtract>subtract</subtract>
            </metric2>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value 2.

Contents <add>—Add constant to attribute.

<metric2>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<metric2> (configuration/policy-options/policy-statement/term/then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <metric2>
            <metric2>metric2</metric2>
            <add>add</add>
            <subtract>subtract</subtract>
          </metric2>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value 2.

Contents <add>—Add constant to attribute.

<metric2>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<metric2> (configuration/policy-options/policy-statement/then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <then>
        <metric2>
          <metric2>metric2</metric2>
          <add>add</add>
          <subtract>subtract</subtract>
        </metric2>
      </then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value 2.

Contents <add>—Add constant to attribute.

<metric2>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<metric2> (configuration/routing-instances/instance/routing-options/aggregate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <defaults>
            <metric2>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric2>
          </defaults>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-instances/instance/routing-options/aggregate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <route>
            <metric2>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric2>
          </route>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-instances/instance/routing-options/generate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <generate>
          <defaults>
            <metric2>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric2>
          </defaults>
        </generate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-instances/instance/routing-options/generate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <generate>
          <route>
            <metric2>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric2>
          </route>
        </generate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-instances/instance/routing-options/rib/aggregate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <defaults>
              <metric2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric2>
            </defaults>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-instances/instance/routing-options/rib/aggregate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <route>
              <metric2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric2>
            </route>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-instances/instance/routing-options/rib/generate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <defaults>
              <metric2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric2>
            </defaults>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-instances/instance/routing-options/rib/generate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <route>
              <metric2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric2>
            </route>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-instances/instance/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <defaults>
              <metric2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric2>
            </defaults>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-instances/instance/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <route>
              <metric2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric2>
            </route>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-instances/instance/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <defaults>
            <metric2>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric2>
          </defaults>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-instances/instance/routing-options/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <route>
            <metric2>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric2>
          </route>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-options/aggregate/defaults)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <defaults>
        <metric2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric2>
      </defaults>
    </aggregate>
  </routing-options>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-options/aggregate/route)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <route>
        <metric2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric2>
      </route>
    </aggregate>
  </routing-options>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-options/generate/defaults)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <defaults>
        <metric2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric2>
      </defaults>
    </generate>
  </routing-options>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-options/generate/route)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <route>
        <metric2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric2>
      </route>
    </generate>
  </routing-options>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-options/rib/aggregate/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <defaults>
          <metric2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric2>
        </defaults>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-options/rib/aggregate/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <route>
          <metric2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric2>
        </route>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-options/rib/generate/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <defaults>
          <metric2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric2>
        </defaults>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-options/rib/generate/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <route>
          <metric2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric2>
        </route>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <defaults>
          <metric2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric2>
        </defaults>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <route>
          <metric2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric2>
        </route>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <static>
      <defaults>
        <metric2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric2>
      </defaults>
    </static>
  </routing-options>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric2> (configuration/routing-options/static/route)

Usage

```
<configuration>
  <routing-options>
    <static>
      <route>
        <metric2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric2>
      </route>
    </static>
  </routing-options>
</configuration>
```

Description Metric value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/policy-options/policy-statement/from/route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <metric3>
            <metric3>metric3</metric3>
            <add>add</add>
            <subtract>subtract</subtract>
          </metric3>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value 3.

Contents <add>—Add constant to attribute.

<metric3>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<metric3> (configuration / policy-options / policy-statement / from / source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <metric3>
            <metric3>metric3</metric3>
            <add>add</add>
            <subtract>subtract</subtract>
          </metric3>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value 3.

Contents <add>—Add constant to attribute.

<metric3>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<metric3> (configuration / policy-options / policy-statement / term / from / route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <metric3>
              <metric3>metric3</metric3>
              <add>add</add>
              <subtract>subtract</subtract>
            </metric3>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value 3.

Contents <add>—Add constant to attribute.

<metric3>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<metric3> (configuration/policy-options/policy-statement/term/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <metric3>
              <metric3>metric3</metric3>
              <add>add</add>
              <subtract>subtract</subtract>
            </metric3>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value 3.

Contents <add>—Add constant to attribute.

<metric3>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<metric3> (configuration/policy-options/policy-statement/term/then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <metric3>
            <metric3>metric3</metric3>
            <add>add</add>
            <subtract>subtract</subtract>
          </metric3>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value 3.

Contents <add>—Add constant to attribute.

<metric3>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<metric3> (configuration / policy-options / policy-statement / then)

Usage

```
<configuration>
   <policy-options>
      <policy-statement>
         <then>
            <metric3>
               <metric3>metric3</metric3>
               <add>add</add>
               <subtract>subtract</subtract>
            </metric3>
         </then>
      </policy-statement>
   </policy-options>
</configuration>
```

Description Metric value 3.

Contents <add>—Add constant to attribute.

<metric3>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<metric3> (configuration / routing-instances / instance / routing-options / aggregate / defaults)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <aggregate>
               <defaults>
                  <metric3>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </metric3>
               </defaults>
            </aggregate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-instances/instance/routing-options/aggregate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <route>
            <metric3>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric3>
          </route>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-instances/instance/routing-options/generate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <generate>
          <defaults>
            <metric3>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric3>
          </defaults>
        </generate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-instances/instance/routing-options/generate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <generate>
          <route>
            <metric3>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric3>
          </route>
        </generate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-instances/instance/routing-options/rib/aggregate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <defaults>
              <metric3>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric3>
            </defaults>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-instances/instance/routing-options/rib/aggregate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <route>
              <metric3>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric3>
            </route>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-instances/instance/routing-options/rib/generate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <defaults>
              <metric3>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric3>
            </defaults>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-instances/instance/routing-options/rib/generate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <route>
              <metric3>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric3>
            </route>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-instances/instance/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <defaults>
              <metric3>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric3>
            </defaults>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-instances/instance/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <route>
              <metric3>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric3>
            </route>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-instances/instance/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <defaults>
            <metric3>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric3>
          </defaults>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-instances/instance/routing-options/static/route)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <static>
               <route>
                  <metric3>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </metric3>
               </route>
            </static>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-options/aggregate/defaults)

Usage

```
<configuration>
   <routing-options>
      <aggregate>
         <defaults>
            <metric3>
               <metric-value>metric-value</metric-value>     <!-- mandatory -->
               <type>type</type>
            </metric3>
         </defaults>
      </aggregate>
   </routing-options>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-options/aggregate/route)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <route>
        <metric3>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric3>
      </route>
    </aggregate>
  </routing-options>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-options/generate/defaults)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <defaults>
        <metric3>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric3>
      </defaults>
    </generate>
  </routing-options>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-options/generate/route)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <route>
        <metric3>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric3>
      </route>
    </generate>
  </routing-options>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-options/rib/aggregate/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <defaults>
          <metric3>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric3>
        </defaults>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-options/rib/aggregate/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <route>
          <metric3>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric3>
        </route>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-options/rib/generate/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <defaults>
          <metric3>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric3>
        </defaults>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-options/rib/generate/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <route>
          <metric3>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric3>
        </route>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <defaults>
          <metric3>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric3>
        </defaults>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <route>
          <metric3>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric3>
        </route>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <static>
      <defaults>
        <metric3>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric3>
      </defaults>
    </static>
  </routing-options>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric3> (configuration / routing-options / static / route)

Usage

```
<configuration>
  <routing-options>
    <static>
      <route>
        <metric3>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric3>
      </route>
    </static>
  </routing-options>
</configuration>
```

Description Metric value 3.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration / policy-options / policy-statement / from / route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <metric4>
            <metric4>metric4</metric4>
            <add>add</add>
            <subtract>subtract</subtract>
          </metric4>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value 4.

Contents <add>—Add constant to attribute.

<metric4>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<metric4> (configuration/policy-options/policy-statement/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <metric4>
            <metric4>metric4</metric4>
            <add>add</add>
            <subtract>subtract</subtract>
          </metric4>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value 4.

Contents <add>—Add constant to attribute.

<metric4>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<metric4> (configuration/policy-options/policy-statement/term/from/route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <metric4>
              <metric4>metric4</metric4>
              <add>add</add>
              <subtract>subtract</subtract>
            </metric4>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value 4.

Contents <add>—Add constant to attribute.

<metric4>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<metric4> (configuration/policy-options/policy-statement/term/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <metric4>
              <metric4>metric4</metric4>
              <add>add</add>
              <subtract>subtract</subtract>
            </metric4>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value 4.

Contents <add>—Add constant to attribute.

<metric4>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<metric4> (configuration/policy-options/policy-statement/term/then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <metric4>
            <metric4>metric4</metric4>
            <add>add</add>
            <subtract>subtract</subtract>
          </metric4>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value 4.

Contents <add>—Add constant to attribute.

<metric4>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<metric4> (configuration/policy-options/policy-statement/then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <then>
        <metric4>
          <metric4>metric4</metric4>
          <add>add</add>
          <subtract>subtract</subtract>
        </metric4>
      </then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Metric value 4.

Contents <add>—Add constant to attribute.

<metric4>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<metric4> (configuration/routing-instances/instance/routing-options/aggregate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <defaults>
            <metric4>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric4>
          </defaults>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-instances/instance/routing-options/aggregate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <route>
            <metric4>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric4>
          </route>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-instances/instance/routing-options/generate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <generate>
          <defaults>
            <metric4>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric4>
          </defaults>
        </generate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-instances/instance/routing-options/generate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <generate>
          <route>
            <metric4>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric4>
          </route>
        </generate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-instances/instance/routing-options/rib/aggregate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <defaults>
              <metric4>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric4>
            </defaults>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-instances/instance/routing-options/rib/aggregate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <route>
              <metric4>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric4>
            </route>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-instances/instance/routing-options/rib/generate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <defaults>
              <metric4>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric4>
            </defaults>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-instances/instance/routing-options/rib/generate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <route>
              <metric4>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric4>
            </route>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-instances/instance/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <defaults>
              <metric4>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric4>
            </defaults>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-instances/instance/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <route>
              <metric4>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </metric4>
            </route>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-instances/instance/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <defaults>
            <metric4>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric4>
          </defaults>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-instances/instance/routing-options/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <route>
            <metric4>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </metric4>
          </route>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-options/aggregate/defaults)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <defaults>
        <metric4>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric4>
      </defaults>
    </aggregate>
  </routing-options>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-options/aggregate/route)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <route>
        <metric4>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric4>
      </route>
    </aggregate>
  </routing-options>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-options/generate/defaults)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <defaults>
        <metric4>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric4>
      </defaults>
    </generate>
  </routing-options>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-options/generate/route)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <route>
        <metric4>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric4>
      </route>
    </generate>
  </routing-options>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-options/rib/aggregate/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <defaults>
          <metric4>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric4>
        </defaults>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-options/rib/aggregate/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <route>
          <metric4>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric4>
        </route>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-options/rib/generate/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <defaults>
          <metric4>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric4>
        </defaults>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-options/rib/generate/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <route>
          <metric4>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric4>
        </route>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <defaults>
          <metric4>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric4>
        </defaults>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <route>
          <metric4>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </metric4>
        </route>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <static>
      <defaults>
        <metric4>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric4>
      </defaults>
    </static>
  </routing-options>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<metric4> (configuration/routing-options/static/route)

Usage

```
<configuration>
  <routing-options>
    <static>
      <route>
        <metric4>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </metric4>
      </route>
    </static>
  </routing-options>
</configuration>
```

Description Metric value 4.

Contents <metric-value>—Metric value.

<type>—Metric type.

<mfr-bundle-options> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <mfr-bundle-options>
        <mrru>bytes</mrru>
        <yellow-differential-delay>milliseconds</yellow-differential-delay>
        <red-differential-delay>milliseconds</red-differential-delay>
        <action-red-differential-delay>action-red-differential</action-red-differential-delay>
        <fragment-threshold>bytes</fragment-threshold>
        <drop-timeout>milliseconds</drop-timeout>
        <lmi-type>lmi-type-choice</lmi-type>
        <minimum-links>minimum-links</minimum-links>
        <hello-timer>hello-timer</hello-timer>
        <acknowledge-timer>acknowledge-timer</acknowledge-timer>
        <acknowledge-retries>acknowledge-retries</acknowledge-retries>
        <n391>n391</n391>
        <n392>n392</n392>
        <n393>n393</n393>
        <t391>t391</t391>
        <t392>t392</t392>
      </mfr-bundle-options>
    </interface>
  </interfaces>
</configuration>
```

Description Multilink Frame Relay FRF.16 management settings.

Contents <acknowledge-retries>—LIP ack retry times.

<acknowledge-timer>—LIP ack timer.

<action-red-differential-delay>—Type of actions when differential delay exceeds red limit.

- disable-tx—Disable tx of bundle link when exceeding red limit.
- remove-link—Remove bundle link from service when exceeding red limit.

<drop-timeout>—Drop timeout.

<fragment-threshold>—Fragmentation threshold in 64-byte steps.

<hello-timer>—LIP hello timer.

<lmi-type>—Specify the MFR LMI type.

- ansi—Use ANSI Annex D LMI.
- itu—Use ITU Q933a Annex A LMI.

<minimum-links>—Minimum number of links to sustain the bundle.

<mrru>—Maximum received reconstructed unit.

<n391>—MFR Full status polling counter.

<n392>—MFR LMI error threshold.

<n393>—MFR LMI monitored event count.

<red-differential-delay>—Red differential delay among bundle links to take action.

<t391>—MFR link integrity verify polling timer.

<t392>—MFR polling verification timer.

<yellow-differential-delay>—Yellow differential delay among bundle links to give warning.

<mfr-frf16> (configuration/interfaces/interface/unit/family)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <mfr-frf16>
            <bundle>bundle</bundle>     <!-- mandatory -->
          </mfr-frf16>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Multilink Frame Relay UNI/NNI protocol parameters.

Contents <bundle>—Logical interface name this link will join.

<minimum-igp> (configuration/policy-options/policy-statement/from/route-filter/metric)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <metric>
            <minimum-igp>
              <metric_offset>metric_offset</metric_offset>
            </minimum-igp>
          </metric>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Track the minimum IGP metric (BGP only).

Contents <metric_offset>—Metric offset for MED.

<minimum-igp> (configuration/policy-options/policy-statement/from/source-address-filter/metric)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <metric>
            <minimum-igp>
              <metric_offset>metric_offset</metric_offset>
            </minimum-igp>
          </metric>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Track the minimum IGP metric (BGP only).

Contents <metric_offset>—Metric offset for MED.

<minimum-igp> (configuration/policy-options/policy-statement/term/from/route-filter/metric)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <metric>
              <minimum-igp>
                <metric_offset>metric_offset</metric_offset>
              </minimum-igp>
            </metric>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Track the minimum IGP metric (BGP only).

Contents <metric_offset>—Metric offset for MED.

<minimum-igp> (configuration/policy-options/policy-statement/term/from/source-address-filter/metric)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <metric>
              <minimum-igp>
                <metric_offset>metric_offset</metric_offset>
              </minimum-igp>
            </metric>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Track the minimum IGP metric (BGP only).

Contents <metric_offset>—Metric offset for MED.

<minimum-igp> (configuration/policy-options/policy-statement/term/then/metric)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <metric>
            <minimum-igp>
              <metric_offset>metric_offset</metric_offset>
            </minimum-igp>
          </metric>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Track the minimum IGP metric (BGP only).

Contents <metric_offset>—Metric offset for MED.

<minimum-igp> (configuration/policy-options/policy-statement/then/metric)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <then>
        <metric>
          <minimum-igp>
            <metric_offset>metric_offset</metric_offset>
          </minimum-igp>
        </metric>
      </then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Track the minimum IGP metric (BGP only).

Contents <metric_offset>—Metric offset for MED.

<minimum-igp> (configuration/protocols/bgp/group/metric-out)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <metric-out>
          <minimum-igp>
            <metric-offset>metric-offset</metric-offset>
          </minimum-igp>
        </metric-out>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Track the minimum IGP metric.

Contents <metric-offset>—Metric offset for MED.

<minimum-igp> (configuration/protocols/bgp/group/neighbor/metric-out)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <metric-out>
            <minimum-igp>
              <metric-offset>metric-offset</metric-offset>
            </minimum-igp>
          </metric-out>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Track the minimum IGP metric.

Contents <metric-offset>—Metric offset for MED.

<minimum-igp> (configuration/protocols/bgp/metric-out)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <metric-out>
        <minimum-igp>
          <metric-offset>metric-offset</metric-offset>
        </minimum-igp>
      </metric-out>
    </bgp>
  </protocols>
</configuration>
```

Description Track the minimum IGP metric.

Contents <metric-offset>—Metric offset for MED.

<minimum-igp> (configuration/routing-instances/instance/protocols/bgp/group/metric-out)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <metric-out>
              <minimum-igp>
                <metric-offset>metric-offset</metric-offset>
              </minimum-igp>
            </metric-out>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Track the minimum IGP metric.

Contents <metric-offset>—Metric offset for MED.

<minimum-igp> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/metric-out)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <metric-out>
                <minimum-igp>
                  <metric-offset>metric-offset</metric-offset>
                </minimum-igp>
              </metric-out>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Track the minimum IGP metric.

Contents <metric-offset>—Metric offset for MED.

<minimum-igp> (configuration/routing-instances/instance/protocols/bgp/metric-out)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <metric-out>
            <minimum-igp>
              <metric-offset>metric-offset</metric-offset>
            </minimum-igp>
          </metric-out>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Track the minimum IGP metric.

Contents <metric-offset>—Metric offset for MED.

<mld> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <mld>
      <traceoptions>...</traceoptions>
      <query-interval>seconds</query-interval>
      <query-response-interval>seconds</query-response-interval>
      <query-last-member-interval>seconds</query-last-member-interval>
      <robust-count>robust-count</robust-count>
      <interface>...</interface>
    </mld>
  </protocols>
</configuration>
```

Description MLD options.

Contents <interface>—Interface options for MLD.

<query-interval>—When to send host query messages.

<query-last-member-interval>—When to send group query messages.

<query-response-interval>—How long to wait for a host query response.

<robust-count>—Expected packet loss on a subnet.

<traceoptions>—Trace options for MLD.

<mlfr> (configuration/interfaces/interface/unit/family)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <mlfr>
            <bundle>bundle</bundle>     <!-- mandatory -->
          </mlfr>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Multilink Frame Relay end-to-end protocol parameters.

Contents <bundle>—Logical interface name this link will join.

<mlppp> (configuration / interfaces / interface / unit / family)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <mlppp>
            <bundle>bundle</bundle>     <!-- mandatory -->
          </mlppp>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Multilink PPP protocol parameters.

Contents <bundle>—Logical interface name this link will join.

<mode> (configuration / interfaces / interface / unit / family / inet / rpf-check)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <rpf-check>
              <mode>
                <loose/>
              </mode>
            </rpf-check>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Specify the mode for reverse path forwarding.

Contents <loose>—Enable reverse-path-forwarding loose mode.

<mode> (configuration / interfaces / interface / unit / family / inet6 / rpf-check)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet6>
            <rpf-check>
              <mode>
                <loose/>
              </mode>
            </rpf-check>
          </inet6>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Specify the mode for reverse path forwarding.

Contents <loose>—Enable reverse-path-forwarding loose mode.

<monitoring> (configuration / forwarding-options)

Usage

```
<configuration>
  <forwarding-options>
    <monitoring>
      <name>name</name>     <!-- identifier -->
      <family>...</family>
    </monitoring>
  </forwarding-options>
</configuration>
```

Description Configure lawful interception of traffic.

Contents <family>—Address family of packets to monitor.

<name>—No documentation is available yet.

<mpls> (configuration / firewall / family)

Usage

```
<configuration>
  <firewall>
    <family>
      <mpls>
        <filter>...</filter>
      </mpls>
    </family>
  </firewall>
</configuration>
```

Description Protocol family MPLS for firewall filter.

Contents <filter>—No documentation is available yet.

<mpls> (configuration / forwarding-options / family)

Usage

```
<configuration>
  <forwarding-options>
    <family>
      <mpls>
        <filter>...</filter>
      </mpls>
    </family>
  </forwarding-options>
</configuration>
```

Description MPLS parameters.

Contents <filter>—Filtering for forwarding table.

<mpls> (configuration / forwarding-options / hash-key / family)

Usage

```
<configuration>
  <forwarding-options>
    <hash-key>
      <family>
        <mpls>
          <label-1/>     <!-- mandatory -->
          <label-2/>
        </mpls>
      </family>
    </hash-key>
  </forwarding-options>
</configuration>
```

Description MPLS protocol family.

Contents <label-1>—Include the first MPLS label in the hash key.

<label-2>—Include the second MPLS label in the hash key.

<mpls> (configuration/interfaces/interface/unit/family)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <mpls>
            <mtu>mtu</mtu>
            <filter>...</filter>
            <policer>...</policer>
          </mpls>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description MPLS protocol parameters.

Contents <filter>—Packet filtering.

<mtu>—Protocol family MTU.

<policer>—Interface policing.

<mpls> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <disable/>
      <statistics>...</statistics>
      <log-updown>...</log-updown>
      <traffic-engineering>traffic-engineering-choice</traffic-engineering>
      <traceoptions>...</traceoptions>
      <admin-groups>...</admin-groups>
      <advertisement-hold-time>seconds</advertisement-hold-time>
      <rsvp-error-hold-time>seconds</rsvp-error-hold-time>
      <optimize-aggressive/>
      <no-propagate-ttl/>
      <explicit-null/>
      <ipv6-tunneling/>
      <bandwidth>bandwidth</bandwidth>
      <class-of-service>class-of-service</class-of-service>
      <no-decrement-ttl/>
      <hop-limit>hop-limit</hop-limit>
      <no-cspf/>
      <optimize-timer>seconds</optimize-timer>
      <preference>preference</preference>
      <setup-priority>setup-priority</setup-priority>
      <reservation-priority>reservation-priority</reservation-priority>
      <record/>
      <standby/>
      <admin-group>...</admin-group>
      <label-switched-path>...</label-switched-path>
      <path>...</path>
      <static-path>...</static-path>
      <interface>...</interface>
    </mpls>
  </protocols>
</configuration>
```

Description Multiprotocol Label Switching options.

Contents

<admin-group>—Administrative group policy.

<admin-groups>—Administrative groups.

<advertisement-hold-time>—Time that an 'LSP down' advertisement will be delayed.

<bandwidth>—Bandwidth to reserve (bps).

<class-of-service>—Class-of-service value.

<disable>—Disable MPLS.

<explicit-null>—Advertise the EXPLICIT_NULL label when we are the egress.

<hop-limit>—Maximum allowed router hops.

<interface>—MPLS interface options.

<ipv6-tunneling>—Allow MPLS LSPs to be used for tunneling IPv6 traffic.

<label-switched-path>—Label-switched path.

<log-updown>—Logging actions for LSP up/down events.

<no-cspf>—Disable automatic path computation.

<no-decrement-ttl>—Do not decrement the TTL within an LSP.

<no-propagate-ttl>—Disable TTL propagation from IP to MPLS (on push) and MPLS to IP (on pop).

<optimize-aggressive>—Run aggressive optimization algorithm based on IGP metric only.

<optimize-timer>—Periodical path reoptimizations.

<path>—Route of a label-switched path.

<preference>—Preference value.

<record>—Record transit routers.

<rsvp-error-hold-time>—Time that RSVP PathErr events will be remembered.

<standby>—Keep backup paths in continuous standby.

<static-path>—Static label-switched path.

<statistics>—Collect statistics for signaled label-switched paths.

<traceoptions>—Trace options for MPLS.

<traffic-engineering>—Protocols to perform traffic engineering.

- bgp—BGP destinations only.
- bgp-igp—BGP and IGP destinations.
- bgp-igp-both-ribs—BGP and IGP destinations with routes in both RIBs.

<msdp> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <rib-group>...</rib-group>
      <disable/>
      <export>...</export>
      <import>...</import>
      <local-address>local-address</local-address>
      <traceoptions>...</traceoptions>
      <peer>...</peer>
      <group>...</group>
    </msdp>
  </protocols>
</configuration>
```

Description MSDP options.

Contents <disable>—Disable MSDP.

<export>—Export policy.

<group>—Configure MSDP peer groups.

<import>—Import policy.

<local-address>—Local address.

<peer>—Configure an MSDP peer.

<rib-group>—Routing table group.

<traceoptions>—Trace options for MSDP.

<multicast> (configuration/protocols/bgp/family/inet)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <multicast>
            <prefix-limit>...</prefix-limit>
            <rib-group>...</rib-group>
          </multicast>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Include multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<multicast> (configuration/protocols/bgp/family/inet-vpn)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet-vpn>
          <multicast>
            <prefix-limit>...</prefix-limit>
            <rib-group>...</rib-group>
          </multicast>
        </inet-vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Include multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<multicast> (configuration/protocols/bgp/family/inet6)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <multicast>
            <prefix-limit>...</prefix-limit>
            <rib-group>...</rib-group>
          </multicast>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Include multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<multicast> (configuration/protocols/bgp/group/family/inet)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <multicast>
              <prefix-limit>...</prefix-limit>
              <rib-group>...</rib-group>
            </multicast>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<multicast> (configuration/protocols/bgp/group/family/inet-vpn)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet-vpn>
            <multicast>
              <prefix-limit>...</prefix-limit>
              <rib-group>...</rib-group>
            </multicast>
          </inet-vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<multicast> (configuration/protocols/bgp/group/family/inet6)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <multicast>
              <prefix-limit>...</prefix-limit>
              <rib-group>...</rib-group>
            </multicast>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<multicast> (configuration/protocols/bgp/group/neighbor/family/inet)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <multicast>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </multicast>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<multicast> (configuration/protocols/bgp/group/neighbor/family/inet-vpn)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet-vpn>
              <multicast>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </multicast>
            </inet-vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<multicast> (configuration/protocols/bgp/group/neighbor/family/inet6)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <multicast>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </multicast>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<multicast> (configuration/routing-instances/instance/protocols/bgp/family/inet)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <multicast>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </multicast>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<multicast> (configuration/routing-instances/instance/protocols/bgp/family/inet-vpn)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet-vpn>
              <multicast>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </multicast>
            </inet-vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<multicast> (configuration/routing-instances/instance/protocols/bgp/family/inet6)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <multicast>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </multicast>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<multicast> (configuration/routing-instances/instance/protocols/bgp/group/family/inet)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <multicast>
                  <prefix-limit>...</prefix-limit>
                  <rib-group>...</rib-group>
                </multicast>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<multicast> (configuration/routing-instances/instance/protocols/bgp/group/family/inet-vpn)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <protocols>
            <bgp>
               <group>
                  <family>
                     <inet-vpn>
                        <multicast>
                           <prefix-limit>...</prefix-limit>
                           <rib-group>...</rib-group>
                        </multicast>
                     </inet-vpn>
                  </family>
               </group>
            </bgp>
         </protocols>
      </instance>
   </routing-instances>
</configuration>
```

Description Include multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<multicast> (configuration/routing-instances/instance/protocols/bgp/group/family/inet6)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet6>
                <multicast>
                  <prefix-limit>...</prefix-limit>
                  <rib-group>...</rib-group>
                </multicast>
              </inet6>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<multicast> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <multicast>
                    <prefix-limit>...</prefix-limit>
                    <rib-group>...</rib-group>
                  </multicast>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<multicast> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet-vpn)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet-vpn>
                  <multicast>
                    <prefix-limit>...</prefix-limit>
                    <rib-group>...</rib-group>
                  </multicast>
                </inet-vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<multicast> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet6)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <multicast>
                    <prefix-limit>...</prefix-limit>
                    <rib-group>...</rib-group>
                  </multicast>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include multicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<multicast> (configuration/routing-instances/instance/routing-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <multicast>
          <scope>...</scope>
          <ssm-groups>...</ssm-groups>
        </multicast>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Global multicast options.

Contents <scope>—Multicast address scope.

<ssm-groups>—Source-specific multicast group ranges.

<multicast> (configuration/routing-instances/instance/routing-options/auto-export/family/inet)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <auto-export>
          <family>
            <inet>
              <multicast>
                <disable/>
                <rib-group>rib-group</rib-group>
              </multicast>
            </inet>
          </family>
        </auto-export>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Multicast routing information.

Contents <disable>—Disable instance export.

<rib-group>—Auxiliary rib-group of additional RIBs to consider.

<multicast> (configuration/routing-options)

Usage

```
<configuration>
  <routing-options>
    <multicast>
      <scope>...</scope>
      <ssm-groups>...</ssm-groups>
    </multicast>
  </routing-options>
</configuration>
```

Description Global multicast options.

Contents <scope>—Multicast address scope.

<ssm-groups>—Source-specific multicast group ranges.

<multicast> (configuration/routing-options/auto-export/family/inet)

Usage

```
<configuration>
  <routing-options>
    <auto-export>
      <family>
        <inet>
          <multicast>
            <disable/>
            <rib-group>rib-group</rib-group>
          </multicast>
        </inet>
      </family>
    </auto-export>
  </routing-options>
</configuration>
```

Description Multicast routing information.

Contents <disable>—Disable instance export.

<rib-group>—Auxiliary rib-group of additional RIBs to consider.

<multihop> (configuration/protocols/bgp)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <multihop>
        <ttl>ttl</ttl>
        <no-nexthop-change/>
      </multihop>
    </bgp>
  </protocols>
</configuration>
```

Description Configure an EBGP multihop session.

Contents <no-nexthop-change>—Do not change next hop to self in advertisements.

<ttl>—TTL value for the session.

<multihop> (configuration/protocols/bgp/group)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <multihop>
          <ttl>ttl</ttl>
          <no-nexthop-change/>
        </multihop>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Configure an EBGP multihop session.

Contents <no-nexthop-change>—Do not change next hop to self in advertisements.

<ttl>—TTL value for the session.

<multihop> (configuration/protocols/bgp/group/neighbor)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <multihop>
            <ttl>ttl</ttl>
            <no-nexthop-change/>
          </multihop>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Configure an EBGP multihop session.

Contents <no-nexthop-change>—Do not change next hop to self in advertisements.

<ttl>—TTL value for the session.

<multihop> (configuration/routing-instances/instance/protocols/bgp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <multihop>
            <ttl>ttl</ttl>
            <no-nexthop-change/>
          </multihop>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure an EBGP multihop session.

Contents <no-nexthop-change>—Do not change next hop to self in advertisements.

<ttl>—TTL value for the session.

<multihop> (configuration/routing-instances/instance/protocols/bgp/group)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <multihop>
              <ttl>ttl</ttl>
              <no-nexthop-change/>
            </multihop>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure an EBGP multihop session.

Contents <no-nexthop-change>—Do not change next hop to self in advertisements.

<ttl>—TTL value for the session.

<multihop> (configuration/routing-instances/instance/protocols/bgp/group/neighbor)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <multihop>
                <ttl>ttl</ttl>
                <no-nexthop-change/>
              </multihop>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure an EBGP multihop session.

Contents <no-nexthop-change>—Do not change next hop to self in advertisements.

<ttl>—TTL value for the session.

<multipoint-destination> (configuration/interfaces/interface/unit/family/inet/address)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <address>
              <multipoint-destination>
                <name>name</name>     <!-- identifier -->
                <dlci>dlci</dlci>
                <vci>vci</vci>
                <shaping>...</shaping>
                <oam-period>...</oam-period>
                <oam-liveness>...</oam-liveness>
                <inverse-arp/>
                <transmit-weight>transmit-weight</transmit-weight>
                <epd-threshold>cells</epd-threshold>
              </multipoint-destination>
            </address>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Multipoint NBMA destination.

Contents <dlci>—Frame Relay link control identifier.

<epd-threshold>—ATM2 early packet discard high water mark.

<inverse-arp>—Enable inverse ARP reply messages.

<name>—Destination address.

<oam-liveness>—OAM virtual circuit liveness parameters.

<oam-period>—OAM cell period.

<shaping>—Virtual circuit traffic shaping options.

<transmit-weight>—ATM2 transmit weight for VC under VP tunnel.

<vci>—ATM virtual circuit identifier ([vpi.]vci).

<multiservice-options> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <multiservice-options>
        <boot-command>boot-command</boot-command>
        <syslog/>
        <core-dump/>
      </multiservice-options>
    </interface>
  </interfaces>
</configuration>
```

Description Multiservice interface-specific options.

Contents <boot-command>—Boot command (filename) for Multiservice PIC.

<core-dump>—Enable core dumping on this interface.

<syslog>—Enable system logging on this interface.

<name-server> (configuration/services/ggsn/apn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <name-server>
          <name>name</name>     <!-- identifier -->
        </name-server>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description DNS name servers.

Contents <name>—DNS name server address.

<name-server> (configuration/system)

Usage

```
<configuration>
  <system>
    <name-server>
      <name>name</name>     <!-- identifier -->
    </name-server>
  </system>
</configuration>
```

Description DNS name servers.

Contents <name>—DNS name server address.

<neighbor> (configuration / policy-options / policy-statement / from)

Usage

```
<configuration>
   <policy-options>
      <policy-statement>
         <from>
            <neighbor>
               <name>name</name>     <!-- identifier -->
            </neighbor>
         </from>
      </policy-statement>
   </policy-options>
</configuration>
```

Description Neighboring router.

Contents <name>—Neighboring router.

<neighbor> (configuration / policy-options / policy-statement / term / from)

Usage

```
<configuration>
   <policy-options>
      <policy-statement>
         <term>
            <from>
               <neighbor>
                  <name>name</name>     <!-- identifier -->
               </neighbor>
            </from>
         </term>
      </policy-statement>
   </policy-options>
</configuration>
```

Description Neighboring router.

Contents <name>—Neighboring router.

<neighbor> (configuration / policy-options / policy-statement / term / to)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <to>
          <neighbor>
            <name>name</name>     <!-- identifier -->
          </neighbor>
        </to>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Neighboring router.

Contents <name>—Neighboring router.

<neighbor> (configuration / policy-options / policy-statement / to)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <to>
        <neighbor>
          <name>name</name>     <!-- identifier -->
        </neighbor>
      </to>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Neighboring router.

Contents <name>—Neighboring router.

<neighbor> (configuration/protocols/bgp/group)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <name>name</name>     <!-- identifier -->
          <traceoptions>...</traceoptions>
          <description>description</description>
          <metric-out>...</metric-out>
          <multihop>...</multihop>
          <preference>preference</preference>
          <local-preference>local-preference</local-preference>
          <local-address>local-address</local-address>
          <local-interface>local-interface</local-interface>
          <hold-time>hold-time</hold-time>
          <passive/>
          <advertise-inactive/>
          <keep>keep-choice</keep>
          <no-aggregator-id/>
          <out-delay>out-delay</out-delay>
          <log-updown/>
          <damping/>
          <import>...</import>
          <family>...</family>
          <authentication-key>authentication-key</authentication-key>
          <export>...</export>
          <remove-private/>
          <cluster>cluster</cluster>
          <no-client-reflect/>
          <peer-as>peer-as</peer-as>
          <local-as>...</local-as>
          <ipsec-sa>ipsec-sa</ipsec-sa>
          <graceful-restart>...</graceful-restart>
          <multipath/>
          <as-override/>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Configure a neighbor.

Contents <advertise-inactive>—Advertise inactive routes.

<as-override>—Replace neighbor AS number with our AS number.

<authentication-key>—MD5 authentication key.

<cluster>—Cluster identifier.

<damping>—Enable route flap damping.

<description>—Text description.

<export>—Export policy.

<family>—Protocol family for NLRIs in updates.

<graceful-restart>—BGP graceful restart options.

<hold-time>—Hold time used when negotiating with a peer.

<import>—Import policy.

<ipsec-sa>—IPSec SA name.

<keep>—How to retain routes in the routing table.

- all—Retain all routes.
- none—Retain no routes.

<local-address>—Address of local end of BGP session.

<local-as>—Local autonomous system number.

<local-interface>—Local interface for IPv6 link local EBGP peering.

<local-preference>—Value of LOCAL_PREF path attribute.

<log-updown>—Log a message for peer state transitions.

<metric-out>—Route metric sent in MED.

<multihop>—Configure an EBGP multihop session.

<multipath>—Allow load sharing among multiple BGP paths.

<name>—No documentation is available yet.

<no-aggregator-id>—Set router ID in aggregator path attribute to 0.

<no-client-reflect>—Disable intracluster route redistribution.

<out-delay>—How long before exporting routes from routing table.

<passive>—Do not send open messages to a peer.

<peer-as>—Peer autonomous system number.

<preference>—Preference value.

<remove-private>—Remove well-known private AS numbers.

<traceoptions>—Trace options.

<neighbor> (configuration/protocols/l2circuit)

Usage

```
<configuration>
  <protocols>
    <l2circuit>
      <neighbor>
        <name>name</name>     <!-- identifier -->
        <interface>...</interface>
      </neighbor>
    </l2circuit>
  </protocols>
</configuration>
```

Description List of Layer 2 circuits to this neighbor.

Contents <interface>—Interface forming the Layer 2 circuit.

<name>—Neighbor ID.

<neighbor> (configuration/protocols/ospf/area/interface)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <area>
        <interface>
          <neighbor>
            <name>name</name>     <!-- identifier -->
            <eligible/>
          </neighbor>
        </interface>
      </area>
    </ospf>
  </protocols>
</configuration>
```

Description NBMA neighbor.

Contents <eligible>—Eligible to be DR on an NBMA network.

<name>—Address of neighbor.

<neighbor> (configuration/protocols/ospf3/area/interface)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <area>
        <interface>
          <neighbor>
            <name>name</name>     <!-- identifier -->
            <eligible/>
          </neighbor>
        </interface>
      </area>
    </ospf3>
  </protocols>
</configuration>
```

Description NBMA neighbor.

Contents <eligible>—Eligible to be DR on an NBMA network.

<name>—Address of neighbor.

<neighbor> (configuration/protocols/rip/group)

Usage

```
<configuration>
  <protocols>
    <rip>
      <group>
        <neighbor>
          <name>name</name>     <!-- identifier -->
          <metric-in>metric-in</metric-in>
          <send>...</send>
          <receive>...</receive>
          <check-zero/>
          <message-size>message-size</message-size>
          <import>...</import>
          <authentication-type>authentication-type-choice</authentication-type>
          <authentication-key>authentication-key</authentication-key>
        </neighbor>
      </group>
    </rip>
  </protocols>
</configuration>
```

Description Neighbor configuration.

Contents <authentication-key>—Authentication key (password).

<authentication-type>—Authentication type.

- md5—MD5 authentication.
- none—No authentication.
- simple—Simple password authentication.

<check-zero>—Check reserved fields on incoming RIPv1 packets.

<import>—Import policy.

<message-size>—Number of route entries per update message.

<metric-in>—Metric value to add to incoming routes.

<name>—Interface name.

<receive>—Configure RIP receive options.

<send>—Configure RIP send options.

<neighbor> (configuration/protocols/ripng/group)

Usage

```
<configuration>
  <protocols>
    <ripng>
      <group>
        <neighbor>
          <name>name</name>     <!-- identifier -->
          <metric-in>metric-in</metric-in>
          <send>...</send>
          <receive>...</receive>
          <import>...</import>
        </neighbor>
      </group>
    </ripng>
  </protocols>
</configuration>
```

Description Neighbor configuration.

Contents <import>—Import policy.

<metric-in>—Metric value to add to incoming routes.

<name>—Interface name.

<receive>—Configure RIPng receive options.

<send>—Configure RIPng send options.

<neighbor> (configuration/routing-instances/instance/protocols/bgp/group)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <name>name</name>     <!-- identifier -->
              <traceoptions>...</traceoptions>
              <description>description</description>
              <metric-out>...</metric-out>
              <multihop>...</multihop>
              <preference>preference</preference>
              <local-preference>local-preference</local-preference>
              <local-address>local-address</local-address>
              <local-interface>local-interface</local-interface>
              <hold-time>hold-time</hold-time>
              <passive/>
              <advertise-inactive/>
              <keep>keep-choice</keep>
              <no-aggregator-id/>
              <out-delay>out-delay</out-delay>
              <log-updown/>
              <damping/>
              <import>...</import>
              <family>...</family>
              <authentication-key>authentication-key</authentication-key>
              <export>...</export>
              <remove-private/>
              <cluster>cluster</cluster>
              <no-client-reflect/>
              <peer-as>peer-as</peer-as>
              <local-as>...</local-as>
              <ipsec-sa>ipsec-sa</ipsec-sa>
              <graceful-restart>...</graceful-restart>
              <multipath/>
              <as-override/>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure a neighbor.

Contents <advertise-inactive>—Advertise inactive routes.

<as-override>—Replace neighbor AS number with our AS number.

<authentication-key>—MD5 authentication key.

<cluster>—Cluster identifier.

<damping>—Enable route flap damping.

<description>—Text description.

<export>—Export policy.

<family>—Protocol family for NLRIs in updates.

<graceful-restart>—BGP graceful restart options.

<hold-time>—Hold time used when negotiating with a peer.

<import>—Import policy.

<ipsec-sa>—IPSec SA name.

<keep>—How to retain routes in the routing table.

- all—Retain all routes.
- none—Retain no routes.

<local-address>—Address of local end of BGP session.

<local-as>—Local autonomous system number.

<local-interface>—Local interface for IPv6 link local EBGP peering.

<local-preference>—Value of LOCAL_PREF path attribute.

<log-updown>—Log a message for peer state transitions.

<metric-out>—Route metric sent in MED.

<multihop>—Configure an EBGP multihop session.

<multipath>—Allow load sharing among multiple BGP paths.

<name>—No documentation is available yet.

<no-aggregator-id>—Set router ID in aggregator path attribute to 0.

<no-client-reflect>—Disable intracluster route redistribution.

<out-delay>—How long before exporting routes from routing table.

<passive>—Do not send open messages to a peer.

<peer-as>—Peer autonomous system number.

<preference>—Preference value.

<remove-private>—Remove well-known private AS numbers.

<traceoptions>—Trace options.

<neighbor> (configuration/routing-instances/instance/protocols/ospf/area/interface)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <area>
            <interface>
              <neighbor>
                <name>name</name>     <!-- identifier -->
                <eligible/>
              </neighbor>
            </interface>
          </area>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description NBMA neighbor.

Contents <eligible>—Eligible to be DR on an NBMA network.

<name>—Address of neighbor.

<neighbor> (configuration/routing-instances/instance/protocols/rip/group)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <group>
            <neighbor>
              <name>name</name>     <!-- identifier -->
              <metric-in>metric-in</metric-in>
              <send>...</send>
              <receive>...</receive>
              <check-zero/>
              <message-size>message-size</message-size>
              <import>...</import>
              <authentication-type>authentication-type-choice</authentication-type>
              <authentication-key>authentication-key</authentication-key>
            </neighbor>
          </group>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Neighbor configuration.

Contents <authentication-key>—Authentication key (password).

<authentication-type>—Authentication type.

- md5—MD5 authentication.
- none—No authentication.
- simple—Simple password authentication.

<check-zero>—Check reserved fields on incoming RIPv1 packets.

<import>—Import policy.

<message-size>—Number of route entries per update message.

<metric-in>—Metric value to add to incoming routes.

<name>—Interface name.

<receive>—Configure RIP receive options.

<send>—Configure RIP send options.

<network> (configuration/services/ggsn/trace)

Usage

```
<configuration>
  <services>
    <ggsn>
      <trace>
        <network>
          <name>name</name>     <!-- identifier -->
          <port>port</port>     <!-- mandatory -->
          <override/>
        </network>
      </trace>
    </ggsn>
  </services>
</configuration>
```

Description Network entities that will be traced.

Contents <name>—Address of trace management server.

<override>—Override GTP received IP address.

<port>—Port for outgoing trace data.

<next-header> (configuration/firewall/family/inet6/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <next-header>
                <name>name</name>     <!-- identifier -->
              </next-header>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Match IP protocol type.

Contents <name>—No documentation is available yet.

- ah—IPSec AH.
- dstopts—IPv6 destination options.
- egp—EGP.
- esp—IPSec ESP.
- fragment—IPv6 fragment header.
- gre—GRE.
- hop-by-hop—IPv6 hop-by-hop options.
- icmp—ICMP.
- icmpv6—ICMP V6.
- igmp—IGMP.
- ipip—IP in IP.
- ipv6—IPv6 in IP.
- name—Range of values.
- no-next-header—IPv6 no next header.
- ospf—OSPF.
- pim—PIM.
- routing—IPv6 routing header.

- rsvp—RSVP.
- tcp—TCP.
- udp—UDP.

<next-header-except> (configuration/firewall/family/inet6/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <next-header-except>
                <name>name</name>     <!-- identifier -->
              </next-header-except>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Do not match IP protocol type.

Contents <name>—No documentation is available yet.

- ah—IPSec AH.
- dstopts—IPv6 destination options.
- egp—EGP.
- esp—IPSec ESP.
- fragment—IPv6 fragment header.
- gre—GRE.
- hop-by-hop—IPv6 hop-by-hop options.
- icmp—ICMP.
- icmpv6—ICMP V6.
- igmp—IGMP.
- ipip—IP in IP.
- ipv6—IPv6 in IP.
- name—Range of values.

- no-next-header—IPv6 no next header.
- ospf—OSPF.
- pim—PIM.
- routing—IPv6 routing header.
- rsvp—RSVP.
- tcp—TCP.
- udp—UDP.

<next-hop> (configuration / class-of-service / forwarding-policy / next-hop-map / forwarding-class)

Usage

```
<configuration>
  <class-of-service>
    <forwarding-policy>
      <next-hop-map>
        <forwarding-class>
          <next-hop>
            <name>name</name>     <!-- identifier -->
          </next-hop>
        </forwarding-class>
      </next-hop-map>
    </forwarding-policy>
  </class-of-service>
</configuration>
```

Description Next-hop identifier to which to map.

Contents <name>—Next-hop identifier to which to map.

<next-hop> (configuration / policy-options / policy-statement / from)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <next-hop>
          <name>name</name>     <!-- identifier -->
        </next-hop>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Next-hop router.

Contents <name>—Next-hop router.

<next-hop> (configuration / policy-options / policy-statement / from / route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <next-hop>
            <self/>
            <peer-address/>
            <address>address</address>
          </next-hop>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Set the address of the next-hop router.

Contents <address>—Next-hop address.

<peer-address>—Use the remote peer address as the next-hop address.

<self>—Use a local address as the next-hop address.

<next-hop> (configuration / policy-options / policy-statement / from / source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <next-hop>
            <self/>
            <peer-address/>
            <address>address</address>
          </next-hop>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Set the address of the next-hop router.

Contents <address>—Next-hop address.

<peer-address>—Use the remote peer address as the next-hop address.

<self>—Use a local address as the next-hop address.

<next-hop> (configuration / policy-options / policy-statement / term / from)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <next-hop>
            <name>name</name>     <!-- identifier -->
          </next-hop>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Next-hop router.

Contents <name>—Next-hop router.

<next-hop> (configuration / policy-options / policy-statement / term / from / route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <next-hop>
              <self/>
              <peer-address/>
              <address>address</address>
            </next-hop>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Set the address of the next-hop router.

Contents <address>—Next-hop address.

<peer-address>—Use the remote peer address as the next-hop address.

<self>—Use a local address as the next-hop address.

<next-hop> (configuration / policy-options / policy-statement / term / from / source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <next-hop>
              <self/>
              <peer-address/>
              <address>address</address>
            </next-hop>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Set the address of the next-hop router.

Contents <address>—Next-hop address.

<peer-address>—Use the remote peer address as the next-hop address.

<self>—Use a local address as the next-hop address.

<next-hop> (configuration / policy-options / policy-statement / term / then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <next-hop>
            <self/>
            <peer-address/>
            <address>address</address>
          </next-hop>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Set the address of the next-hop router.

Contents <address>—Next-hop address.

<peer-address>—Use the remote peer address as the next-hop address.

<self>—Use a local address as the next-hop address.

<next-hop> (configuration / policy-options / policy-statement / term / to)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <to>
          <next-hop>
            <name>name</name>     <!-- identifier -->
          </next-hop>
        </to>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Next-hop router.

Contents <name>—Next-hop router.

<next-hop> (configuration / policy-options / policy-statement / then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <then>
        <next-hop>
          <self/>
          <peer-address/>
          <address>address</address>
        </next-hop>
      </then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Set the address of the next-hop router.

Contents <address>—Next-hop address.

<peer-address>—Use the remote peer address as the next-hop address.

<self>—Use a local address as the next-hop address.

<next-hop> (configuration/policy-options/policy-statement/to)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <to>
        <next-hop>
          <name>name</name>     <!-- identifier -->
        </next-hop>
      </to>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Next-hop router.

Contents <name>—Next-hop router.

<next-hop> (configuration/routing-instances/instance/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <route>
              <next-hop>
                <name>name</name>     <!-- identifier -->
              </next-hop>
            </route>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Next hop to destination.

Contents <name>—Next hop to destination.

<next-hop> (configuration/routing-instances/instance/routing-options/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <route>
            <next-hop>
              <name>name</name>     <!-- identifier -->
            </next-hop>
          </route>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Next hop to destination.

Contents <name>—Next hop to destination.

<next-hop> (configuration/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <route>
          <next-hop>
            <name>name</name>     <!-- identifier -->
          </next-hop>
        </route>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Next hop to destination.

Contents <name>—Next hop to destination.

<next-hop> (configuration / routing-options / static / route)

Usage

```
<configuration>
  <routing-options>
    <static>
      <route>
        <next-hop>
          <name>name</name>     <!-- identifier -->
        </next-hop>
      </route>
    </static>
  </routing-options>
</configuration>
```

Description Next hop to destination.

Contents <name>—Next hop to destination.

<next-hop-map> (configuration / class-of-service / forwarding-policy)

Usage

```
<configuration>
  <class-of-service>
    <forwarding-policy>
      <next-hop-map>
        <name>name</name>     <!-- identifier -->
        <forwarding-class>...</forwarding-class>
      </next-hop-map>
    </forwarding-policy>
  </class-of-service>
</configuration>
```

Description Class-of-service next-hop map.

Contents <forwarding-class>—Forwarding class from which to map.

<name>—Name to identify next-hop map.

<node> (configuration / services / ggsn / pdp-context)

Usage

```
<configuration>
  <services>
    <ggsn>
      <pdp-context>
        <node>
          <creation>creation-choice</creation>
          <limit>limit</limit>
        </node>
      </pdp-context>
    </ggsn>
  </services>
</configuration>
```

Description GGSN node-global PDP context settings.

Contents <creation>—PDP context creation state.

- blocked—New PDP context creation fully blocked.
- unblocked—No restrictions on PDP context creation.

<limit>—Maximum number of PDP contexts.

<normal> (configuration/services/ggsn/charging/characteristics)

Usage

```
<configuration>
  <services>
    <ggsn>
      <charging>
        <characteristics>
          <normal>
            <volume-limit>kilobytes</volume-limit>
            <time-limit>minutes</time-limit>
            <call-detail/>
            <change-limit>change-limit</change-limit>
          </normal>
        </characteristics>
      </charging>
    </ggsn>
  </services>
</configuration>
```

Description Normal postpaid clients.

Contents <call-detail>—Generate call detail records.

<change-limit>—Maximum record changes to buffer on PIC.

<time-limit>—Time to buffer charging data.

<volume-limit>—Volume of charging data to buffer.

<nssa> (configuration/protocols/ospf/area)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <area>
        <nssa>
          <default-lsa>...</default-lsa>
          <summaries/>
          <area-range>...</area-range>
        </nssa>
      </area>
    </ospf>
  </protocols>
</configuration>
```

Description Configure a not-so-stubby area.

Contents <area-range>—Configure NSSA area ranges.

<default-lsa>—Configure a default LSA.

<summaries>—Flood summary LSAs into this NSSA area.

<nssa> (configuration/protocols/ospf3/area)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <area>
        <nssa>
          <default-lsa>...</default-lsa>
          <summaries/>
          <area-range>...</area-range>
        </nssa>
      </area>
    </ospf3>
  </protocols>
</configuration>
```

Description Configure a not-so-stubby area.

Contents <area-range>—Configure NSSA area ranges.

<default-lsa>—Configure a default LSA.

<summaries>—Flood summary LSAs into this NSSA area.

<nssa> (configuration / routing-instances / instance / protocols / ospf / area)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <area>
            <nssa>
              <default-lsa>...</default-lsa>
              <summaries/>
              <area-range>...</area-range>
            </nssa>
          </area>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure a not-so-stubby area.

Contents <area-range>—Configure NSSA area ranges.

<default-lsa>—Configure a default LSA.

<summaries>—Flood summary LSAs into this NSSA area.

<oam-liveness> (configuration / interfaces / interface / atm-options / vpi)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <atm-options>
        <vpi>
          <oam-liveness>
            <up-count>up-count</up-count>
            <down-count>down-count</down-count>
          </oam-liveness>
        </vpi>
      </atm-options>
    </interface>
  </interfaces>
</configuration>
```

Description F4 OAM virtual path liveness parameters.

Contents <down-count>—Number of F4 OAM cells to consider VP down.

<up-count>—Number of F4 OAM cells to consider VP up.

<oam-liveness> (configuration/interfaces/interface/unit)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <oam-liveness>
          <up-count>up-count</up-count>
          <down-count>down-count</down-count>
        </oam-liveness>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description OAM virtual circuit liveness parameters.

Contents <down-count>—Number of OAM cells to consider VC down.

<up-count>—Number of OAM cells to consider VC up.

<oam-liveness> (configuration/interfaces/interface/unit/family/inet/address/multipoint-destination)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <address>
              <multipoint-destination>
                <oam-liveness>
                  <up-count>up-count</up-count>
                  <down-count>down-count</down-count>
                </oam-liveness>
              </multipoint-destination>
            </address>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description OAM virtual circuit liveness parameters.

Contents <down-count>—Number of OAM cells to consider VC down.

<up-count>—Number of OAM cells to consider VC up.

<oam-period> (configuration / interfaces / interface / atm-options / vpi)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <atm-options>
        <vpi>
          <oam-period>
            <oam-period>seconds</oam-period>
            <disable>disable</disable>
          </oam-period>
        </vpi>
      </atm-options>
    </interface>
  </interfaces>
</configuration>
```

Description F4 OAM cell period.

Contents <disable>—Disable F4 OAM loopback.

<oam-period>—F4 OAM cell period.

<oam-period> (configuration / interfaces / interface / unit)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <oam-period>
          <oam-period>seconds</oam-period>
          <disable>disable</disable>
        </oam-period>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description OAM cell period.

Contents <disable>—Disable F5 OAM loopback.

<oam-period>—OAM cell period.

<oam-period> (configuration/interfaces/interface/unit/family/inet/address/multipoint-destination)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <address>
              <multipoint-destination>
                <oam-period>
                  <oam_period>seconds</oam_period>
                  <disable>disable</disable>
                </oam-period>
              </multipoint-destination>
            </address>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description OAM cell period.

Contents <disable>—Disable OAM loopback.

<oam_period>—OAM cell period.

<oid> (configuration/snmp/view)

Usage

```
<configuration>
  <snmp>
    <view>
      <oid>
        <name>name</name>     <!-- identifier -->
        <include/>
        <exclude/>
      </oid>
    </view>
  </snmp>
</configuration>
```

Description OID include/exclude list.

Contents <exclude>—Exclude this OID from the view.

<include>—Include this OID in the view.

<name>—OID to include or exclude from view.

<options> (configuration / routing-instances / instance / routing-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <options>
          <syslog>...</syslog>
          <mark>seconds</mark>
        </options>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Miscellaneous options.

Contents <mark>—Periodically mark the trace file.

<syslog>—Set system logging level.

<options> (configuration / routing-options)

Usage

```
<configuration>
  <routing-options>
    <options>
      <syslog>...</syslog>
      <mark>seconds</mark>
    </options>
  </routing-options>
</configuration>
```

Description Miscellaneous options.

Contents <mark>—Periodically mark the trace file.

<syslog>—Set system logging level.

<ospf> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <disable/>
      <traceoptions>...</traceoptions>
      <rib-group>rib-group</rib-group>
      <overload>...</overload>
      <graceful-restart>...</graceful-restart>
      <traffic-engineering>...</traffic-engineering>
      <route-type-community>route-type-community-choice</route-type-community>
      <domain-id>...</domain-id>
      <domain-vpn-tag>domain-vpn-tag</domain-vpn-tag>
      <preference>preference</preference>
      <external-preference>external-preference</external-preference>
      <export>...</export>
      <reference-bandwidth>reference-bandwidth</reference-bandwidth>
      <spf-delay>milliseconds</spf-delay>
      <area>...</area>
    </ospf>
  </protocols>
</configuration>
```

Description OSPF configuration.

Contents <area>—Configure an OSPF area.

<disable>—Disable OSPF.

<domain-id>—Configure domain ID.

<domain-vpn-tag>—Domain VPN tag for type 5 LSA.

<export>—Export policy.

<external-preference>—Preference of external routes.

<graceful-restart>—Configure graceful restart attributes.

<overload>—Set the overload mode (repel transit traffic).

<preference>—Preference of internal routes.

<reference-bandwidth>—Bandwidth for calculating metric defaults.

<rib-group>—Routing table group for importing OSPF routes.

<route-type-community>—Specify BGP extended community value to encode OSPF route type.

- iana—BGP extended community value used is 0x0306.
- vendor—Vendor BGP extended community value used is 0x8000.

<spf-delay>—Time to wait before running an SPF.

<traceoptions>—Trace options for OSPF.

<traffic-engineering>—Configure traffic engineering attributes.

<ospf> (configuration/routing-instances/instance/protocols)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <disable/>
          <traceoptions>...</traceoptions>
          <rib-group>rib-group</rib-group>
          <overload>...</overload>
          <graceful-restart>...</graceful-restart>
          <traffic-engineering>...</traffic-engineering>
          <route-type-community>route-type-community-choice</route-type-community>
          <domain-id>...</domain-id>
          <domain-vpn-tag>domain-vpn-tag</domain-vpn-tag>
          <preference>preference</preference>
          <external-preference>external-preference</external-preference>
          <export>...</export>
          <reference-bandwidth>reference-bandwidth</reference-bandwidth>
          <spf-delay>milliseconds</spf-delay>
          <area>...</area>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description OSPF configuration.

Contents

<area>—Configure an OSPF area.

<disable>—Disable OSPF.

<domain-id>—Configure domain ID.

<domain-vpn-tag>—Domain VPN tag for type 5 LSA.

<export>—Export policy.

<external-preference>—Preference of external routes.

<graceful-restart>—Configure graceful restart attributes.

<overload>—Set the overload mode (repel transit traffic).

<preference>—Preference of internal routes.

<reference-bandwidth>—Bandwidth for calculating metric defaults.

<rib-group>—Routing table group for importing OSPF routes.

<route-type-community>—Specify BGP extended community value to encode OSPF route type.

- iana—BGP extended community value used is 0x0306.
- vendor—Vendor BGP extended community value used is 0x8000.

<spf-delay>—Time to wait before running an SPF.

<traceoptions>—Trace options for OSPF.

<traffic-engineering>—Configure traffic engineering attributes.

<ospf3> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <disable/>
      <traceoptions>...</traceoptions>
      <rib-group>rib-group</rib-group>
      <overload>...</overload>
      <graceful-restart>...</graceful-restart>
      <traffic-engineering>...</traffic-engineering>
      <route-type-community>route-type-community-choice</route-type-community>
      <domain-id>...</domain-id>
      <domain-vpn-tag>domain-vpn-tag</domain-vpn-tag>
      <preference>preference</preference>
      <external-preference>external-preference</external-preference>
      <export>...</export>
      <reference-bandwidth>reference-bandwidth</reference-bandwidth>
      <spf-delay>milliseconds</spf-delay>
      <area>...</area>
    </ospf3>
  </protocols>
</configuration>
```

Description OSPFv3 configuration.

Contents <area>—Configure an OSPF area.

<disable>—Disable OSPF.

<domain-id>—Configure domain ID.

<domain-vpn-tag>—Domain VPN tag for type 5 LSA.

<export>—Export policy.

<external-preference>—Preference of external routes.

<graceful-restart>—Configure graceful restart attributes.

<overload>—Set the overload mode (repel transit traffic).

<preference>—Preference of internal routes.

<reference-bandwidth>—Bandwidth for calculating metric defaults.

<rib-group>—Routing table group for importing OSPF routes.

<route-type-community>—Specify BGP extended community value to encode OSPF route type.

- iana—BGP extended community value used is 0x0306.
- vendor—Vendor BGP extended community value used is 0x8000.

<spf-delay>—Time to wait before running an SPF.

<traceoptions>—Trace options for OSPF.

<traffic-engineering>—Configure traffic engineering attributes.

<outband-dhcp-server> (configuration/services/ggsn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <outband-dhcp-server>
        <name>name</name>     <!-- identifier -->
        <address>address</address>     <!-- mandatory -->
        <routing-instance>...</routing-instance>
        <timeout>seconds</timeout>
        <retry>retry</retry>
      </outband-dhcp-server>
    </ggsn>
  </services>
</configuration>
```

Description Outband DHCP server configuration.

Contents <address>—DHCP server address.

<name>—Name of outband DHCP server.

<retry>—Retry attempts.

<routing-instance>—Routing instance for server.

<timeout>—Request timeout period.

<outband-radius-server> (configuration/services/ggsn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <outband-radius-server>
        <name>name</name>     <!-- identifier -->
        <address>address</address>     <!-- mandatory -->
        <routing-instance>...</routing-instance>
        <timeout>seconds</timeout>
        <retry>retry</retry>
        <port>port</port>
        <secret>secret</secret>     <!-- mandatory -->
        <serverdown-timeout>seconds</serverdown-timeout>
      </outband-radius-server>
    </ggsn>
  </services>
</configuration>
```

Description Outband RADIUS server configuration.

Contents <address>—RADIUS server address.

<name>—Name of outband RADIUS server.

<port>—Port number for RADIUS messages.

<retry>—Retry attempts.

<routing-instance>—Routing instance for server.

<secret>—Shared secret with the RADIUS server.

<serverdown-timeout>—Time before retrying requests to a down server.

<timeout>—Request timeout period.

<outband-server> (configuration/services/ggsn/apn/dhcp)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <dhcp>
          <outband-server>
            <name>name</name>     <!-- identifier -->
          </outband-server>
        </dhcp>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description Shared DHCP server configuration.

Contents <name>—Name of outband GGSN DHCP server.

<outband-server> (configuration/services/ggsn/apn/radius)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <radius>
          <outband-server>
            <accounting-server>...</accounting-server>
            <authentication-server>...</authentication-server>
          </outband-server>
        </radius>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description Shared RADIUS server configuration.

Contents <accounting-server>—Shared RADIUS accounting server.

<authentication-server>—Shared RADIUS authentication server.

<output> (configuration/forwarding-options/monitoring/family/inet)

Usage

```
<configuration>
  <forwarding-options>
    <monitoring>
      <family>
        <inet>
          <output>
            <export-format>export-format-choice</export-format>      <!-- mandatory -->
            <export-interval>seconds</export-interval>
            <destination-address>destination</destination-address> <!-- mandatory -->
            <destination-port>destination-port</destination-port>      <!-- mandatory -->
            <source-address>source-address</source-address>      <!-- mandatory -->
            <interface>...</interface>      <!-- mandatory -->
          </output>
        </inet>
      </family>
    </monitoring>
  </forwarding-options>
</configuration>
```

Description Monitoring data disposition.

Contents <destination-address>—Address to which monitored packets will be sent.

<destination-port>—Port to which monitored packets will be sent.

<export-format>—Format for sending monitoring information.

- cflowd-version-5—Export in cflowd version 5 format.

<export-interval>—Interval of distributing monitoring information.

<interface>—Interfaces used to send monitored information.

<source-address>—Address to use for generating monitored packets.

<output> (configuration / forwarding-options / sampling)

Usage

```
<configuration>
  <forwarding-options>
    <sampling>
      <output>
        <file>...</file>
        <cflowd>...</cflowd>
        <port-mirroring>...</port-mirroring>
      </output>
    </sampling>
  </forwarding-options>
</configuration>
```

Description Traffic sampling data disposition.

Contents <cflowd>—Configure sending traffic aggregates in cflowd format.

<file>—Configure parameters for dumping sampled packets.

<port-mirroring>—Configure sending sampled traffic out through an interface.

<output-shaper> (configuration / class-of-service / interfaces / unit)

Usage

```
<configuration>
  <class-of-service>
    <interfaces>
      <unit>
        <output-shaper>
          <bandwidth>bits per second</bandwidth>
          <burst>bytes</burst>
        </output-shaper>
      </unit>
    </interfaces>
  </class-of-service>
</configuration>
```

Description Output shaper applied to this logical interface.

Contents <bandwidth>—Bandwidth.

<burst>—Burst.

<overload> (configuration/protocols/isis)

Usage

```
<configuration>
  <protocols>
    <isis>
      <overload>
        <timeout>seconds</timeout>
      </overload>
    </isis>
  </protocols>
</configuration>
```

Description Set the overload bit (no transit traffic).

Contents <timeout>—Time after which overload bit is reset.

<overload> (configuration/protocols/ospf)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <overload>
        <timeout>seconds</timeout>
      </overload>
    </ospf>
  </protocols>
</configuration>
```

Description Set the overload mode (repel transit traffic).

Contents <timeout>—Time after which overload mode is reset.

<overload> (configuration/protocols/ospf3)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <overload>
        <timeout>seconds</timeout>
      </overload>
    </ospf3>
  </protocols>
</configuration>
```

Description Set the overload mode (repel transit traffic).

Contents <timeout>—Time after which overload mode is reset.

<overload> (configuration/routing-instances/instance/protocols/isis)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <isis>
          <overload>
            <timeout>seconds</timeout>
          </overload>
        </isis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Set the overload bit (no transit traffic).

Contents <timeout>—Time after which overload bit is reset.

<overload> (configuration/routing-instances/instance/protocols/ospf)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <overload>
            <timeout>seconds</timeout>
          </overload>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Set the overload mode (repel transit traffic).

Contents <timeout>—Time after which overload mode is reset.

<packet-length> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <packet-length>
                <name>name</name>     <!-- identifier -->
              </packet-length>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match packet length.

Contents <name>—Range of values.

<packet-length> (configuration / firewall / family / inet6 / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <packet-length>
                <name>name</name>     <!-- identifier -->
              </packet-length>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Match packet length.

Contents <name>—Range of values.

<packet-length> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <packet-length>
            <name>name</name>     <!-- identifier -->
          </packet-length>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match packet length.

Contents <name>—Range of values.

<packet-length-except> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <packet-length-except>
                <name>name</name>     <!-- identifier -->
              </packet-length-except>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Do not match packet length.

Contents <name>—Range of values.

<packet-length-except> (configuration / firewall / family / inet6 / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <packet-length-except>
                <name>name</name>     <!-- identifier -->
              </packet-length-except>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Do not match packet length.

Contents <name>—Range of values.

<packet-length-except> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <packet-length-except>
            <name>name</name>     <!-- identifier -->
          </packet-length-except>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Do not match packet length.

Contents <name>—Range of values.

<partition> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <partition>
        <name>name</name>     <!-- identifier -->
        <oc-slice>oc-slice</oc-slice>
        <timeslots>timeslots</timeslots>
        <sub-interface>sub-interface-choice</sub-interface>     <!-- mandatory -->
      </partition>
    </interface>
  </interfaces>
</configuration>
```

Description Channelized interface partition.

Contents <name>—Sublevel interface partition index (for example, 1, 3-4).

<oc-slice>—Range of SONET/SDH slices (for example, 1, 2-4).

<sub-interface>—Sublevel interface type.

- ce1—Channelized E1 interface.
- ce3—Channelized E3 interface.
- coc12—Channelized OC-12 interface.
- coc3—Channelized OC-3 interface.
- cstm1—Channelized STM-1 interface.
- cstm4—Channelized STM-4 interface.
- ct1—Channelized T1 interface.
- ct3—Channelized T3 interface.
- ds—DS-0 interface.
- e1—E1 interface.
- e3—E3 interface.
- so—SONET interface.
- t1—T1 interface.
- t3—T3 interface.

<timeslots>—Timeslots (1..24/32) for t1/e1; for example, 1-3,4,9,22-24 (no space).

<path> (configuration/protocols/mpls)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <path>
        <name>name</name>     <!-- identifier -->
        <path-list>...</path-list>
      </path>
    </mpls>
  </protocols>
</configuration>
```

Description Route of a label-switched path.

Contents <name>—Name of label-switched path.

<path-list>—List of routers in the label-switched path.

<path> (configuration/protocols/mpls/static-path)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <static-path>
        <path>
          <name>name</name>     <!-- identifier -->
          <next-hop>next-hop</next-hop>     <!-- mandatory -->
          <push>push</push>
          <double_push_bottom>double_push_bottom</double_push_bottom>
          <double_push_top>double_push_top</double_push_top>
          <triple_push_bottom>triple_push_bottom</triple_push_bottom>
          <triple_push_middle>triple_push_middle</triple_push_middle>
          <triple_push_top>triple_push_top</triple_push_top>
          <preference>preference</preference>
          <class-of-service>class-of-service</class-of-service>
        </path>
      </static-path>
    </mpls>
  </protocols>
</configuration>
```

Description Name of static label-switched path.

Contents <class-of-service>—Class-of-service value.

<name>—Destination prefix.

<next-hop>—Next hop to destination.

<preference>—Preference value.

<push>—Label to push.

<path-list> (configuration/protocols/mpls/path)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <path>
        <path-list>
          <name>name</name>     <!-- identifier -->
          <loose/>
          <strict/>
        </path-list>
      </path>
    </mpls>
  </protocols>
</configuration>
```

Description List of routers in the label-switched path.

Contents <loose>—Next hop might not be adjacent.

<name>—Address of next system in path.

<strict>—Next hop must be adjacent.

<payload-scrambler> (configuration/interfaces/interface/sonet-options)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <sonet-options>
        <payload-scrambler/>
      </sonet-options>
    </interface>
  </interfaces>
</configuration>
```

Description Enable payload scrambling.

<pdp-context> (configuration/services/ggsn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <pdp-context>
        <idle-supervision/>
        <idle-timeout>minutes</idle-timeout>
        <interfaces>...</interfaces>
        <node>...</node>
      </pdp-context>
    </ggsn>
  </services>
</configuration>
```

Description PDP context creation settings.

Contents <idle-supervision>—Limit lifetime of idle PDP contexts.

<idle-timeout>—Idle timeout for PDP contexts.

<interfaces>—Interface-specific PDP context creation options.

<node>—GGSN node-global PDP context settings.

<pdp-context> (configuration/services/ggsn/apn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <pdp-context>
          <creation>creation-choice</creation>
          <limit>limit</limit>
          <address-allocation>address-allocation</address-allocation> <!-- mandatory -->
        </pdp-context>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description No documentation is available yet.

Contents <address-allocation>—Method used to allocate addresses to PDP contexts.

- dhcp-client—DHCP server assigns addresses.
- local-pool—GGSN assigns addresses from local pool.
- radius—RADIUS server assigns addresses.
- static—Addresses are statically allocated.

<creation>—PDP context creation state.

- blocked—New PDP context creation fully blocked.
- unblocked—No restrictions on PDP context creation.

<limit>—Maximum number of PDP contexts.

<peer> (configuration/protocols/link-management)

Usage

```
<configuration>
  <protocols>
    <link-management>
      <peer>
        <name>name</name>     <!-- identifier -->
        <address>address</address>     <!-- mandatory -->
        <te-link>...</te-link>     <!-- mandatory -->
      </peer>
    </link-management>
  </protocols>
</configuration>
```

Description Define a network or LMP peer.

Contents <address>—Address of peer.

<name>—Name of peer.

<te-link>—List of TE links managed by this peer.

<peer> (configuration/protocols/msdp)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <peer>
        <name>name</name>     <!-- identifier -->
        <disable/>
        <export>...</export>
        <import>...</import>
        <local-address>local-address</local-address>
        <traceoptions>...</traceoptions>
        <default-peer/>
      </peer>
    </msdp>
  </protocols>
</configuration>
```

Description Configure an MSDP peer.

Contents <default-peer>—Default RPF peer.

<disable>—Disable MSDP.

<export>—Export policy.

<import>—Import policy.

<local-address>—Local address.

<name>—Peer address.

<traceoptions>—Trace options for MSDP.

<peer> (configuration/protocols/msdp/group)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <group>
        <peer>
          <name>name</name>     <!-- identifier -->
          <disable/>
          <export>...</export>
          <import>...</import>
          <local-address>local-address</local-address>
          <traceoptions>...</traceoptions>
          <default-peer/>
        </peer>
      </group>
    </msdp>
  </protocols>
</configuration>
```

Description Configure an MSDP peer.

Contents <default-peer>—Default RPF peer.

<disable>—Disable MSDP.

<export>—Export policy.

<import>—Import policy.

<local-address>—Local address.

<name>—Peer address.

<traceoptions>—Trace options for MSDP.

<perfect-forward-secrecy> (configuration/security/ipsec/policy)

Usage

```
<configuration>
  <security>
    <ipsec>
      <policy>
        <perfect-forward-secrecy>
          <keys>keys-choice</keys>
        </perfect-forward-secrecy>
      </policy>
    </ipsec>
  </security>
</configuration>
```

Description Define perfect forward secrecy for a dynamic SA.

Contents <keys>—Define Diffie-Hellman group.

- group1—Diffie-Hellman Group1.
- group2—Diffie-Hellman Group2.

<permissions> (configuration/system/login/class)

Usage

```
<configuration>
  <system>
    <login>
      <class>
        <permissions>
          <name>name</name>     <!-- identifier -->
        </permissions>
      </class>
    </login>
  </system>
</configuration>
```

Description Set of permitted operation categories.

Contents <name>—Set of permitted operation categories.

- access—Can view network access configuration.
- access-control—Can modify network access configuration.
- admin—Can view user accounts.
- admin-control—Can modify user accounts.
- all—All permission bits turned on.
- clear—Can clear learned network information.
- configure—Can enter configuration mode.
- control—Can modify any configuration values.
- field—Special for field (debug) support.
- firewall—Can view firewall configuration.
- firewall-control—Can modify firewall configuration.
- floppy—Can read and write the floppy drive.
- interface—Can view interface configuration.
- interface-control—Can modify interface configuration.
- maintenance—Can perform system maintenance (as wheel).
- network—Can access the network.

- reset—Can reset and restart interfaces and processes.
- rollback—Can rollback for depth greater than zero.
- routing—Can view routing configuration.
- routing-control—Can modify routing configuration.
- secret—Can view secret configuration.
- secret-control—Can modify secret configuration.
- security—Can view security configuration.
- security-control—Can modify security configuration.
- shell—Can start a local shell.
- snmp—Can view SNMP configuration.
- snmp-control—Can modify SNMP configuration.
- system—Can view system configuration.
- system-control—Can modify system configuration.
- trace—Can view trace file settings.
- trace-control—Can modify trace file settings.
- view—Can view current values and statistics.

<pic> (configuration/chassis/fpc)

Usage

```
<configuration>
  <chassis>
    <fpc>
      <pic>
        <name>name</name>     <!-- identifier -->
        <framing>framing-choice</framing>
        <vtmapping>vtmapping-choice</vtmapping>
        <no-concatenate/>
        <sparse-dlcis/>
        <idle-cell-format>...</idle-cell-format>
        <atm-cell-relay-accumulation/>
        <mfr-bundles>mfr-bundles</mfr-bundles>
        <ct3>...</ct3>
        <ce1>...</ce1>
      </pic>
    </fpc>
  </chassis>
</configuration>
```

Description Physical Interface Card (PIC) number.

Contents <atm-cell-relay-accumulation>—Enable ATM cell relay accumulation mode.

<ce1>—CE1 NxDS0 PIC configuration.

<ct3>—CT3 NxDS0 PIC configuration.

<framing>—Framing mode.

- sdh—SDH mode.
- sonet—SONET mode.

<idle-cell-format>—ATM idle cell configuration.

<mfr-bundles>—Number of Multilink Frame Relay UNI-NNI (FRF.16) bundles to allocate on PIC.

<name>—PIC slot number.

<no-concatenate>—Do not concatenate channels.

<sparse-dlcis>—Run in sparse DLCI mode.

<vtmapping>—VT mapping mode.

- itu-t—ITU-T mode.
- klm—KLM mode.

<pic-console-authentication> (configuration/system)

Usage

```
<configuration>
  <system>
    <pic-console-authentication>
      <plain-text-password-value>plain-text-password-value</plain-text-password-value>
      <encrypted-password>encrypted-password</encrypted-password>
    </pic-console-authentication>
  </system>
</configuration>
```

Description Authentication for the console port on PICs.

Contents <encrypted-password>—Crypted password string.

<plain-text-password-value>—Plain text password.

<pim> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <pim>
      <disable/>
      <traceoptions>...</traceoptions>
      <dense-groups>...</dense-groups>
      <vpn-group-address>vpn-group-address</vpn-group-address>
      <rib-group>...</rib-group>
      <import>...</import>
      <rp>...</rp>
      <interface>...</interface>
    </pim>
  </protocols>
</configuration>
```

Description PIM configuration.

Contents <dense-groups>—Dense mode groups for sparse-dense mode.

<disable>—Disable PIM.

<import>—PIM sparse import join policy.

<interface>—PIM interface options.

<rib-group>—Routing table group.

<rp>—Router's rendezvous point properties.

<traceoptions>—Trace options for PIM.

<vpn-group-address>—Group address for the VPN in provider space.

<pim> (configuration/routing-instances/instance/protocols)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <disable/>
          <traceoptions>...</traceoptions>
          <dense-groups>...</dense-groups>
          <vpn-group-address>vpn-group-address</vpn-group-address>
          <rib-group>...</rib-group>
          <import>...</import>
          <rp>...</rp>
          <interface>...</interface>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description PIM configuration.

Contents <dense-groups>—Dense mode groups for sparse-dense mode.

<disable>—Disable PIM.

<import>—PIM sparse import join policy.

<interface>—PIM interface options.

<rib-group>—Routing table group.

<rp>—Router's rendezvous point properties.

<traceoptions>—Trace options for PIM.

<vpn-group-address>—Group address for the VPN in provider space.

<policer> (configuration/firewall)

Usage

```
<configuration>
  <firewall>
    <policer>
      <name>name</name>     <!-- identifier -->
      <filter-specific/>
      <if-exceeding>...</if-exceeding>
      <then>...</then>
    </policer>
  </firewall>
</configuration>
```

Description Policer template definition.

Contents <filter-specific>—Policer is filter-specific.

<if-exceeding>—Define rate limits.

<name>—Policer name.

<then>—Action to take if the rate limits are exceeded.

<policer> (configuration/interfaces/interface/unit/family/ccc)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <ccc>
            <policer>
              <input>input</input>
              <output>output</output>
            </policer>
          </ccc>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Interface policing.

Contents <input>—Name of policer applied to received packets.

<output>—Name of policer applied to transmitted packets.

<policer> (configuration/interfaces/interface/unit/family/inet)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <policer>
              <input>input</input>
              <output>output</output>
            </policer>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Interface policing.

Contents <input>—Name of policer applied to received packets.

<output>—Name of policer applied to transmitted packets.

<policer> (configuration / interfaces / interface / unit / family / mpls)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <mpls>
            <policer>
              <input>input</input>
              <output>output</output>
            </policer>
          </mpls>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Interface policing.

Contents <input>—Name of policer applied to received packets.

<output>—Name of policer applied to transmitted packets.

<policer> (configuration / interfaces / interface / unit / family / tcc)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <tcc>
            <policer>
              <input>input</input>
              <output>output</output>
            </policer>
          </tcc>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Interface policing.

Contents <input>—Name of policer applied to received packets.

<output>—Name of policer applied to transmitted packets.

<policy> (configuration / policy-options / policy-statement / from)

Usage

```
<configuration>
   <policy-options>
      <policy-statement>
         <from>
            <policy>
               <name>name</name>     <!-- identifier -->
            </policy>
         </from>
      </policy-statement>
   </policy-options>
</configuration>
```

Description Name of policy to evaluate.

Contents <name>—Name of policy to evaluate.

<policy> (configuration / policy-options / policy-statement / term / from)

Usage

```
<configuration>
   <policy-options>
      <policy-statement>
         <term>
            <from>
               <policy>
                  <name>name</name>     <!-- identifier -->
               </policy>
            </from>
         </term>
      </policy-statement>
   </policy-options>
</configuration>
```

Description Name of policy to evaluate.

Contents <name>—Name of policy to evaluate.

<policy> (configuration/policy-options/policy-statement/term/to)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <to>
          <policy>
            <name>name</name>     <!-- identifier -->
          </policy>
        </to>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Name of policy to evaluate.

Contents <name>—Name of policy to evaluate.

<policy> (configuration/policy-options/policy-statement/to)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <to>
        <policy>
          <name>name</name>     <!-- identifier -->
        </policy>
      </to>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Name of policy to evaluate.

Contents <name>—Name of policy to evaluate.

<policy> (configuration / protocols / bgp / group / neighbor / traceoptions / flag / filter)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <traceoptions>
            <flag>
              <filter>
                <policy>
                  <name>name</name>     <!-- identifier -->
                </policy>
              </filter>
            </flag>
          </traceoptions>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Filter policy.

Contents <name>—Filter policy.

<policy> (configuration / protocols / bgp / group / traceoptions / flag / filter)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <traceoptions>
          <flag>
            <filter>
              <policy>
                <name>name</name>     <!-- identifier -->
              </policy>
            </filter>
          </flag>
        </traceoptions>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Filter policy.

Contents <name>—Filter policy.

<policy> (configuration / protocols / bgp / traceoptions / flag / filter)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <traceoptions>
        <flag>
          <filter>
            <policy>
              <name>name</name>     <!-- identifier -->
            </policy>
          </filter>
        </flag>
      </traceoptions>
    </bgp>
  </protocols>
</configuration>
```

Description Filter policy.

Contents <name>—Filter policy.

<policy> (configuration / protocols / rip / traceoptions / flag / filter)

Usage

```
<configuration>
  <protocols>
    <rip>
      <traceoptions>
        <flag>
          <filter>
            <policy>
              <name>name</name>     <!-- identifier -->
            </policy>
          </filter>
        </flag>
      </traceoptions>
    </rip>
  </protocols>
</configuration>
```

Description Filter policy.

Contents <name>—Filter policy.

<policy> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / traceoptions / flag / filter)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <protocols>
            <bgp>
               <group>
                  <neighbor>
                     <traceoptions>
                        <flag>
                           <filter>
                              <policy>
                                 <name>name</name>     <!-- identifier -->
                              </policy>
                           </filter>
                        </flag>
                     </traceoptions>
                  </neighbor>
               </group>
            </bgp>
         </protocols>
      </instance>
   </routing-instances>
</configuration>
```

Description Filter policy.

Contents <name>—Filter policy.

<policy> (configuration/routing-instances/instance/protocols/bgp/group/traceoptions/flag/filter)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <traceoptions>
              <flag>
                <filter>
                  <policy>
                    <name>name</name>     <!-- identifier -->
                  </policy>
                </filter>
              </flag>
            </traceoptions>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Filter policy.

Contents <name>—Filter policy.

<policy> (configuration/routing-instances/instance/protocols/bgp/traceoptions/flag/filter)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <traceoptions>
            <flag>
              <filter>
                <policy>
                  <name>name</name>     <!-- identifier -->
                </policy>
              </filter>
            </flag>
          </traceoptions>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Filter policy.

Contents <name>—Filter policy.

<policy> (configuration / routing-instances / instance / protocols / rip / traceoptions / flag / filter)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <traceoptions>
            <flag>
              <filter>
                <policy>
                  <name>name</name>     <!-- identifier -->
                </policy>
              </filter>
            </flag>
          </traceoptions>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Filter policy.

Contents <name>—Filter policy.

<policy> (configuration / routing-instances / instance / routing-options / aggregate / route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <route>
            <policy>
              <name>name</name>     <!-- identifier -->
            </policy>
          </route>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Policy filter.

Contents <name>—Policy filter.

<policy> (configuration/routing-instances/instance/routing-options/generate/route)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <generate>
               <route>
                  <policy>
                     <name>name</name>     <!-- identifier -->
                  </policy>
               </route>
            </generate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Policy filter.

Contents <name>—Policy filter.

<policy> (configuration/routing-instances/instance/routing-options/rib/aggregate/route)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <rib>
               <aggregate>
                  <route>
                     <policy>
                        <name>name</name>     <!-- identifier -->
                     </policy>
                  </route>
               </aggregate>
            </rib>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Policy filter.

Contents <name>—Policy filter.

<policy> (configuration / routing-instances / instance / routing-options / rib / generate / route)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <rib>
               <generate>
                  <route>
                     <policy>
                        <name>name</name>     <!-- identifier -->
                     </policy>
                  </route>
               </generate>
            </rib>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Policy filter.

Contents <name>—Policy filter.

<policy> (configuration / routing-options / aggregate / route)

Usage

```
<configuration>
   <routing-options>
      <aggregate>
         <route>
            <policy>
               <name>name</name>     <!-- identifier -->
            </policy>
         </route>
      </aggregate>
   </routing-options>
</configuration>
```

Description Policy filter.

Contents <name>—Policy filter.

<policy> (configuration / routing-options / generate / route)

Usage

```
<configuration>
   <routing-options>
      <generate>
         <route>
            <policy>
               <name>name</name>     <!-- identifier -->
            </policy>
         </route>
      </generate>
   </routing-options>
</configuration>
```

Description Policy filter.

Contents <name>—Policy filter.

<policy> (configuration / routing-options / rib / aggregate / route)

Usage

```
<configuration>
   <routing-options>
      <rib>
         <aggregate>
            <route>
               <policy>
                  <name>name</name>     <!-- identifier -->
               </policy>
            </route>
         </aggregate>
      </rib>
   </routing-options>
</configuration>
```

Description Policy filter.

Contents <name>—Policy filter.

<policy> (configuration / routing-options / rib / generate / route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <route>
          <policy>
            <name>name</name>     <!-- identifier -->
          </policy>
        </route>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Policy filter.

Contents <name>—Policy filter.

<policy> (configuration / security / ike)

Usage

```
<configuration>
  <security>
    <ike>
      <policy>
        <name>name</name>     <!-- identifier -->
        <mode>mode-choice</mode>
        <proposals>...</proposals>
        <pre-shared-key>...</pre-shared-key>
      </policy>
    </ike>
  </security>
</configuration>
```

Description Define an IKE policy.

Contents <mode>—Define the first phase mode.

- aggressive—Aggressive mode.
- main—Main mode.

<name>—IKE peer address.

<pre-shared-key>—Define a preshared key.

<proposals>—Define the set of IKE proposals.

<policy> (configuration/security/ipsec)

Usage

```
<configuration>
  <security>
    <ipsec>
      <policy>
        <name>name</name>     <!-- identifier -->
        <perfect-forward-secrecy>...</perfect-forward-secrecy>
        <proposals>...</proposals>
      </policy>
    </ipsec>
  </security>
</configuration>
```

Description Define an IPSec policy.

Contents <name>—Name of the policy.

<perfect-forward-secrecy>—Define perfect forward secrecy for a dynamic SA.

<proposals>—Define the set of IPSec proposals.

<policy-options> (configuration)

Usage

```
<configuration>
  <policy-options>
    <prefix-list>...</prefix-list>
    <policy-statement>...</policy-statement>
    <community>...</community>
    <as-path>...</as-path>
    <damping>...</damping>
  </policy-options>
</configuration>
```

Description Routing policy option configuration.

Contents <as-path>—BGP autonomous system path regular expression.

<community>—BGP community information.

<damping>—BGP route flap damping properties.

<policy-statement>—Routing policy.

<prefix-list>—Define a named set of address prefixes.

<policy-statement> (configuration/policy-options)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <name>name</name>     <!-- identifier -->
      <term>...</term>
      <from>...</from>
      <to>...</to>
      <then>...</then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Routing policy.

Contents <from>—Conditions to match a route's source.

<name>—Name to identify a policy filter.

<term>—Policy term.

<then>—Actions to take if 'from' and 'to' conditions match.

<to>—Conditions to match a route's destination.

<port> (configuration/chassis/fpc/pic/ct3)

Usage

```
<configuration>
  <chassis>
    <fpc>
      <pic>
        <ct3>
          <port>
            <name>name</name>     <!-- identifier -->
            <t1>...</t1>
          </port>
        </ct3>
      </pic>
    </fpc>
  </chassis>
</configuration>
```

Description Ct3 port.

Contents <name>—Ct3 port number.

<t1>—T1 link.

<port> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <port>
                <name>name</name>     <!-- identifier -->
              </port>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match TCP/UDP source or destination port.

Contents <name>—No documentation is available yet.

- afs—Andrew File System.
- bgp—BGP.
- biff—Biff/Comsat.
- bootpc—BOOTP client.
- bootps—BOOTP server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—DHCP.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—HTTP.
- https—Secure HTTP.

- ident—Ident.
- imap—IMAP.
- kerberos-sec—Kerberos Sec.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos db propagation.
- krbupdate—Kerberos db update.
- kshell—Kerberos rsh.
- ldap—LDAP.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.
- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- name—Range of values.
- netbios-dgm—NETBIOS DGM.
- netbios-ns—NETBIOS NS.
- netbios-ssn—NETBIOS SSN.
- nfsd—NFS.
- nntp—NNTP.
- ntalk—New Talk.
- ntp—NTP.
- pop3—POP3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.
- radius—RADIUS authentication.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.

- smtp—SMTP.
- snmp—SNMP.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell (ssh).
- sunrpc—SUN RPC.
- syslog—System log.
- tacacs—TACACS (original, not TACACS +).
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—TFTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—XDMCP.

<port> (configuration / firewall / family / inet6 / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <port>
                <name>name</name>     <!-- identifier -->
              </port>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Match TCP/UDP source or destination port.

Contents <name>—No documentation is available yet.

- afs—Andrew File System.
- bgp—BGP.
- biff—Biff/Comsat.
- bootpc—BOOTP client.
- bootps—BOOTP server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—DHCP.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—HTTP.
- https—Secure HTTP.
- ident—Ident.
- imap—IMAP.
- kerberos-sec—Kerberos Sec.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos db propagation.
- krbupdate—Kerberos db update.
- kshell—Kerberos rsh.
- ldap—LDAP.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.

- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- name—Range of values.
- netbios-dgm—NETBIOS DGM.
- netbios-ns—NETBIOS NS.
- netbios-ssn—NETBIOS SSN.
- nfsd—NFS.
- nntp—NNTP.
- ntalk—New Talk.
- ntp—NTP.
- pop3—POP3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.
- radius—RADIUS authentication.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—SMTP.
- snmp—SNMP.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell (ssh).
- sunrpc—SUN RPC.
- syslog—System log.
- tacacs—TACACS (original, not TACACS +).
- talk—UNIX Talk.
- telnet—Telnet.

- tftp—TFTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—XDMCP.

<port> (configuration/firewall/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <port>
            <name>name</name>     <!-- identifier -->
          </port>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match TCP/UDP source or destination port.

Contents <name>—No documentation is available yet.

- afs—Andrew File System.
- bgp—BGP.
- biff—Biff/Comsat.
- bootpc—BOOTP client.
- bootps—BOOTP server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—DHCP.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.

- ftp-data—FTP data.
- http—HTTP.
- https—Secure HTTP.
- ident—Ident.
- imap—IMAP.
- kerberos-sec—Kerberos Sec.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos db propagation.
- krbupdate—Kerberos db update.
- kshell—Kerberos rsh.
- ldap—LDAP.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.
- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- name—Range of values.
- netbios-dgm—NETBIOS DGM.
- netbios-ns—NETBIOS NS.
- netbios-ssn—NETBIOS SSN.
- nfsd—NFS.
- nntp—NNTP.
- ntalk—New Talk.
- ntp—NTP.
- pop3—POP3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.

- radius—RADIUS authentication.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—SMTP.
- snmp—SNMP.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell (ssh).
- sunrpc—SUN RPC.
- syslog—System log.
- tacacs—TACACS (original, not TACACS +).
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—TFTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—XDMCP.

<port> (configuration / forwarding-options / helpers)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <port>
        <description>description</description>
        <server>...</server>
        <name>name</name>     <!-- identifier -->
        <interface>...</interface>
      </port>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Incoming arbitrary protocol request forwarding configuration.

Contents <description>—Text description of server.

<interface>—Incoming request forwarding interface configuration.

<name>—Port number of the protocol to listen.

<server>—Server information.

<port-except> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <port-except>
                <name>name</name>     <!-- identifier -->
              </port-except>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Do not match TCP/UDP source or destination port.

Contents <name>—No documentation is available yet.

- afs—Andrew File System.
- bgp—BGP.
- biff—Biff/Comsat.
- bootpc—BOOTP client.

- bootps—BOOTP server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—DHCP.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—HTTP.
- https—Secure HTTP.
- ident—Ident.
- imap—IMAP.
- kerberos-sec—Kerberos Sec.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos db propagation.
- krbupdate—Kerberos db update.
- kshell—Kerberos rsh.
- ldap—LDAP.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.
- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- name—Range of values.
- netbios-dgm—NETBIOS DGM.

- netbios-ns—NETBIOS NS.
- netbios-ssn—NETBIOS SSN.
- nfsd—NFS.
- nntp—NNTP.
- ntalk—New Talk.
- ntp—NTP.
- pop3—POP3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.
- radius—RADIUS authentication.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—SMTP.
- snmp—SNMP.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell (ssh).
- sunrpc—SUN RPC.
- syslog—System log.
- tacacs—TACACS (original, not TACACS +).
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—TFTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—XDMCP.

<port-except> (configuration/firewall/family/inet6/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <port-except>
                <name>name</name>     <!-- identifier -->
              </port-except>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Do not match TCP/UDP source or destination port.

Contents <name>—No documentation is available yet.

- afs—Andrew File System.
- bgp—BGP.
- biff—Biff/Comsat.
- bootpc—BOOTP client.
- bootps—BOOTP server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—DHCP.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—HTTP.
- https—Secure HTTP.

- ident—Ident.
- imap—IMAP.
- kerberos-sec—Kerberos Sec.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos db propagation.
- krbupdate—Kerberos db update.
- kshell—Kerberos rsh.
- ldap—LDAP.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.
- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- name—Range of values.
- netbios-dgm—NETBIOS DGM.
- netbios-ns—NETBIOS NS.
- netbios-ssn—NETBIOS SSN.
- nfsd—NFS.
- nntp—NNTP.
- ntalk—New Talk.
- ntp—NTP.
- pop3—POP3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.
- radius—RADIUS authentication.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.

- smtp—SMTP.
- snmp—SNMP.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell (ssh).
- sunrpc—SUN RPC.
- syslog—System log.
- tacacs—TACACS (original, not TACACS +).
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—TFTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—XDMCP.

<port-except> (configuration/firewall/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <port-except>
            <name>name</name>     <!-- identifier -->
          </port-except>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Do not match TCP/UDP source or destination port.

Contents <name>—No documentation is available yet.

- afs—Andrew File System.
- bgp—BGP.
- biff—Biff/Comsat.

- bootpc—BOOTP client.
- bootps—BOOTP server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—DHCP.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—HTTP.
- https—Secure HTTP.
- ident—Ident.
- imap—IMAP.
- kerberos-sec—Kerberos Sec.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos db propagation.
- krbupdate—Kerberos db update.
- kshell—Kerberos rsh.
- ldap—LDAP.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.
- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- name—Range of values.

- netbios-dgm—NETBIOS DGM.
- netbios-ns—NETBIOS NS.
- netbios-ssn—NETBIOS SSN.
- nfsd—NFS.
- nntp—NNTP.
- ntalk—New Talk.
- ntp—NTP.
- pop3—POP3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.
- radius—RADIUS authentication.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—SMTP.
- snmp—SNMP.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell (ssh).
- sunrpc—SUN RPC.
- syslog—System log.
- tacacs—TACACS (original, not TACACS +).
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—TFTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—XDMCP.

<port-mirroring> (configuration/forwarding-options/sampling/output)

Usage

```
<configuration>
  <forwarding-options>
    <sampling>
      <output>
        <port-mirroring>
          <interface>interface</interface>
          <next-hop>next-hop</next-hop>
          <no-filter-check/>
        </port-mirroring>
      </output>
    </sampling>
  </forwarding-options>
</configuration>
```

Description Configure sending sampled traffic out through an interface.

Contents <interface>—Interface through which to send sampled traffic.

<next-hop>—Address of next hop through which to send sampled traffic.

<no-filter-check>—Check for filters on port-mirroring interface.

<ports> (configuration/system)

Usage

```
<configuration>
  <system>
    <ports>
      <console>...</console>
      <auxiliary>...</auxiliary>
    </ports>
  </system>
</configuration>
```

Description Craft interface RS-232 ports.

Contents <auxiliary>—Auxiliary port.

<console>—Console port.

<ppp-options> (configuration / interfaces / interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <ppp-options>
        <chap>...</chap>
      </ppp-options>
    </interface>
  </interfaces>
</configuration>
```

Description Point-to-Point Protocol (PPP) interface-specific options.

Contents <chap>—Challenge Handshake Authentication Protocol options.

<pre-shared-key> (configuration / security / ike / policy)

Usage

```
<configuration>
  <security>
    <ike>
      <policy>
        <pre-shared-key>
          <ascii-text>ascii-text</ascii-text>
          <hexadecimal>hexadecimal</hexadecimal>
        </pre-shared-key>
      </policy>
    </ike>
  </security>
</configuration>
```

Description Define a preshared key.

Contents <ascii-text>—In text format.

<hexadecimal>—In hexadecimal format.

<precedence> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <precedence>
                <name>name</name>     <!-- identifier -->
              </precedence>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match IP precedence value.

Contents <name>—No documentation is available yet.

- critical-ecp—Critical/ECP.
- flash—Flash.
- flash-override—Flash override.
- immediate—Immediate.
- internet-control—Internet control.
- name—Range of values.
- net-control—Network control.
- priority—Priority.
- routine—Routine.

<precedence> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <precedence>
            <name>name</name>     <!-- identifier -->
          </precedence>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match IP precedence value.

Contents <name>—No documentation is available yet.

- critical-ecp—Critical/ECP.
- flash—Flash.
- flash-override—Flash override.
- immediate—Immediate.
- internet-control—Internet control.
- name—Range of values.
- net-control—Network control.
- priority—Priority.
- routine—Routine.

<precedence-except> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <precedence-except>
                <name>name</name>     <!-- identifier -->
              </precedence-except>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Do not match IP precedence value.

Contents <name>—No documentation is available yet.

- critical-ecp—Critical/ECP.
- flash—Flash.
- flash-override—Flash override.
- immediate—Immediate.
- internet-control—Internet control.
- name—Range of values.
- net-control—Network control.
- priority—Priority.
- routine—Routine.

<precedence-except> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <precedence-except>
            <name>name</name>     <!-- identifier -->
          </precedence-except>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Do not match IP precedence value.

Contents <name>—No documentation is available yet.

- critical-ecp—Critical/ECP.
- flash—Flash.
- flash-override—Flash override.
- immediate—Immediate.
- internet-control—Internet control.
- name—Range of values.
- net-control—Network control.
- priority—Priority.
- routine—Routine.

<preference> (configuration / policy-options / policy-statement / from / route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <preference>
            <preference>preference</preference>
            <add>add</add>
            <subtract>subtract</subtract>
          </preference>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Preference value.

Contents <add>—Add constant to attribute.

<preference>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<preference> (configuration / policy-options / policy-statement / from / source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <preference>
            <preference>preference</preference>
            <add>add</add>
            <subtract>subtract</subtract>
          </preference>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Preference value.

Contents <add>—Add constant to attribute.

<preference>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<preference> (configuration/policy-options/policy-statement/term/from/route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <preference>
              <preference>preference</preference>
              <add>add</add>
              <subtract>subtract</subtract>
            </preference>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Preference value.

Contents <add>—Add constant to attribute.

<preference>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<preference> (configuration/policy-options/policy-statement/term/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <preference>
              <preference>preference</preference>
              <add>add</add>
              <subtract>subtract</subtract>
            </preference>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Preference value.

Contents <add>—Add constant to attribute.

<preference>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<preference> (configuration/policy-options/policy-statement/term/then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <preference>
            <preference>preference</preference>
            <add>add</add>
            <subtract>subtract</subtract>
          </preference>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Preference value.

Contents <add>—Add constant to attribute.

<preference>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<preference> (configuration/policy-options/policy-statement/then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <then>
        <preference>
          <preference>preference</preference>
          <add>add</add>
          <subtract>subtract</subtract>
        </preference>
      </then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Preference value.

Contents <add>—Add constant to attribute.

<preference>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<preference> (configuration / routing-instances / instance / routing-options / aggregate / defaults)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <aggregate>
               <defaults>
                  <preference>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </preference>
               </defaults>
            </aggregate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration / routing-instances / instance / routing-options / aggregate / route)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <aggregate>
               <route>
                  <preference>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </preference>
               </route>
            </aggregate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration / routing-instances / instance / routing-options / generate / defaults)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <generate>
               <defaults>
                  <preference>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </preference>
               </defaults>
            </generate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration / routing-instances / instance / routing-options / generate / route)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <generate>
               <route>
                  <preference>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </preference>
               </route>
            </generate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration/routing-instances/instance/routing-options/rib/aggregate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <defaults>
              <preference>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </preference>
            </defaults>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration/routing-instances/instance/routing-options/rib/aggregate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <route>
              <preference>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </preference>
            </route>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration / routing-instances / instance / routing-options / rib / generate / defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <defaults>
              <preference>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </preference>
            </defaults>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration / routing-instances / instance / routing-options / rib / generate / route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <route>
              <preference>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </preference>
            </route>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration / routing-instances / instance / routing-options / rib / static / defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <defaults>
              <preference>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </preference>
            </defaults>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration / routing-instances / instance / routing-options / rib / static / route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <route>
              <preference>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </preference>
            </route>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration/routing-instances/instance/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <defaults>
            <preference>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </preference>
          </defaults>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration/routing-instances/instance/routing-options/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <route>
            <preference>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </preference>
          </route>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration / routing-options / aggregate / defaults)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <defaults>
        <preference>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </preference>
      </defaults>
    </aggregate>
  </routing-options>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration / routing-options / aggregate / route)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <route>
        <preference>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </preference>
      </route>
    </aggregate>
  </routing-options>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration/routing-options/generate/defaults)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <defaults>
        <preference>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </preference>
      </defaults>
    </generate>
  </routing-options>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration/routing-options/generate/route)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <route>
        <preference>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </preference>
      </route>
    </generate>
  </routing-options>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration / routing-options / rib / aggregate / defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <defaults>
          <preference>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </preference>
        </defaults>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration / routing-options / rib / aggregate / route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <route>
          <preference>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </preference>
        </route>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration/routing-options/rib/generate/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <defaults>
          <preference>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </preference>
        </defaults>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration/routing-options/rib/generate/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <route>
          <preference>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </preference>
        </route>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <defaults>
          <preference>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </preference>
        </defaults>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <route>
          <preference>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </preference>
        </route>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <static>
      <defaults>
        <preference>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </preference>
      </defaults>
    </static>
  </routing-options>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference> (configuration/routing-options/static/route)

Usage

```
<configuration>
  <routing-options>
    <static>
      <route>
        <preference>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </preference>
      </route>
    </static>
  </routing-options>
</configuration>
```

Description Preference value.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration/policy-options/policy-statement/from/route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <preference2>
            <preference2>preference2</preference2>
            <add>add</add>
            <subtract>subtract</subtract>
          </preference2>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Preference value 2.

Contents <add>—Add constant to attribute.

<preference2>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<preference2> (configuration/policy-options/policy-statement/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <preference2>
            <preference2>preference2</preference2>
            <add>add</add>
            <subtract>subtract</subtract>
          </preference2>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Preference value 2.

Contents <add>—Add constant to attribute.

<preference2>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<preference2> (configuration/policy-options/policy-statement/term/from/route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <preference2>
              <preference2>preference2</preference2>
              <add>add</add>
              <subtract>subtract</subtract>
            </preference2>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Preference value 2.

Contents <add>—Add constant to attribute.

<preference2>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<preference2> (configuration/policy-options/policy-statement/term/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <preference2>
              <preference2>preference2</preference2>
              <add>add</add>
              <subtract>subtract</subtract>
            </preference2>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Preference value 2.

Contents <add>—Add constant to attribute.

<preference2>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<preference2> (configuration / policy-options / policy-statement / term / then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <preference2>
            <preference2>preference2</preference2>
            <add>add</add>
            <subtract>subtract</subtract>
          </preference2>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Preference value 2.

Contents <add>—Add constant to attribute.

<preference2>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<preference2> (configuration / policy-options / policy-statement / then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <then>
        <preference2>
          <preference2>preference2</preference2>
          <add>add</add>
          <subtract>subtract</subtract>
        </preference2>
      </then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Preference value 2.

Contents <add>—Add constant to attribute.

<preference2>—No documentation is available yet.

<subtract>—Subtract constant from attribute.

<preference2> (configuration/routing-instances/instance/routing-options/aggregate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <defaults>
            <preference2>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </preference2>
          </defaults>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration/routing-instances/instance/routing-options/aggregate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <route>
            <preference2>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </preference2>
          </route>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration / routing-instances / instance / routing-options / generate / defaults)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <generate>
               <defaults>
                  <preference2>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </preference2>
               </defaults>
            </generate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration / routing-instances / instance / routing-options / generate / route)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <generate>
               <route>
                  <preference2>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </preference2>
               </route>
            </generate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration/routing-instances/instance/routing-options/rib/aggregate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <defaults>
              <preference2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </preference2>
            </defaults>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration/routing-instances/instance/routing-options/rib/aggregate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <route>
              <preference2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </preference2>
            </route>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration / routing-instances / instance / routing-options / rib / generate / defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <defaults>
              <preference2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </preference2>
            </defaults>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration / routing-instances / instance / routing-options / rib / generate / route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <route>
              <preference2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </preference2>
            </route>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration/routing-instances/instance/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <defaults>
              <preference2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </preference2>
            </defaults>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration/routing-instances/instance/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <route>
              <preference2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </preference2>
            </route>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration/routing-instances/instance/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <defaults>
            <preference2>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </preference2>
          </defaults>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration/routing-instances/instance/routing-options/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <route>
            <preference2>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </preference2>
          </route>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration / routing-options / aggregate / defaults)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <defaults>
        <preference2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </preference2>
      </defaults>
    </aggregate>
  </routing-options>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration / routing-options / aggregate / route)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <route>
        <preference2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </preference2>
      </route>
    </aggregate>
  </routing-options>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration / routing-options / generate / defaults)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <defaults>
        <preference2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </preference2>
      </defaults>
    </generate>
  </routing-options>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration / routing-options / generate / route)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <route>
        <preference2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </preference2>
      </route>
    </generate>
  </routing-options>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration / routing-options / rib / aggregate / defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <defaults>
          <preference2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </preference2>
        </defaults>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration / routing-options / rib / aggregate / route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <route>
          <preference2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </preference2>
        </route>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration / routing-options / rib / generate / defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <defaults>
          <preference2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </preference2>
        </defaults>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration / routing-options / rib / generate / route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <route>
          <preference2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </preference2>
        </route>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <defaults>
          <preference2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </preference2>
        </defaults>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <route>
          <preference2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </preference2>
        </route>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <static>
      <defaults>
        <preference2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </preference2>
      </defaults>
    </static>
  </routing-options>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<preference2> (configuration/routing-options/static/route)

Usage

```
<configuration>
  <routing-options>
    <static>
      <route>
        <preference2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </preference2>
      </route>
    </static>
  </routing-options>
</configuration>
```

Description Preference value 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<prefix> (configuration/protocols/router-advertisement/interface)

Usage

```
<configuration>
  <protocols>
    <router-advertisement>
      <interface>
        <prefix>
          <name>name</name>     <!-- identifier -->
          <valid-lifetime>seconds</valid-lifetime>
          <on-link/>
          <preferred-lifetime>seconds</preferred-lifetime>
          <autonomous/>
        </prefix>
      </interface>
    </router-advertisement>
  </protocols>
</configuration>
```

Description Prefix configuration.

Contents <autonomous>—Set autonomous flag.

<name>—Prefix to be advertised.

<on-link>—Set on-link flag.

<preferred-lifetime>—Preferred lifetime (fixed).

<valid-lifetime>—Valid lifetime (fixed).

<prefix-limit> (configuration/protocols/bgp/family/inet/any)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <any>
            <prefix-limit>
              <maximum>maximum</maximum>     <!-- mandatory -->
              <teardown>...</teardown>
            </prefix-limit>
          </any>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/family/inet/labeled-unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <labeled-unicast>
            <prefix-limit>
              <maximum>maximum</maximum>     <!-- mandatory -->
              <teardown>...</teardown>
            </prefix-limit>
          </labeled-unicast>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/family/inet/multicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <multicast>
            <prefix-limit>
              <maximum>maximum</maximum>     <!-- mandatory -->
              <teardown>...</teardown>
            </prefix-limit>
          </multicast>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/family/inet/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <unicast>
            <prefix-limit>
              <maximum>maximum</maximum>     <!-- mandatory -->
              <teardown>...</teardown>
            </prefix-limit>
          </unicast>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/family/inet-vpn/any)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet-vpn>
          <any>
            <prefix-limit>
              <maximum>maximum</maximum>     <!-- mandatory -->
              <teardown>...</teardown>
            </prefix-limit>
          </any>
        </inet-vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/family/inet-vpn/multicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet-vpn>
          <multicast>
            <prefix-limit>
              <maximum>maximum</maximum>     <!-- mandatory -->
              <teardown>...</teardown>
            </prefix-limit>
          </multicast>
        </inet-vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/family/inet-vpn/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet-vpn>
          <unicast>
            <prefix-limit>
              <maximum>maximum</maximum>     <!-- mandatory -->
              <teardown>...</teardown>
            </prefix-limit>
          </unicast>
        </inet-vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/family/inet6/any)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <any>
            <prefix-limit>
              <maximum>maximum</maximum>     <!-- mandatory -->
              <teardown>...</teardown>
            </prefix-limit>
          </any>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/family/inet6/labeled-unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <labeled-unicast>
            <prefix-limit>
              <maximum>maximum</maximum>     <!-- mandatory -->
              <teardown>...</teardown>
            </prefix-limit>
          </labeled-unicast>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/family/inet6/multicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <multicast>
            <prefix-limit>
              <maximum>maximum</maximum>     <!-- mandatory -->
              <teardown>...</teardown>
            </prefix-limit>
          </multicast>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/family/inet6/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <unicast>
            <prefix-limit>
              <maximum>maximum</maximum>     <!-- mandatory -->
              <teardown>...</teardown>
            </prefix-limit>
          </unicast>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/family/l2vpn/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <l2vpn>
          <unicast>
            <prefix-limit>
              <maximum>maximum</maximum>     <!-- mandatory -->
              <teardown>...</teardown>
            </prefix-limit>
          </unicast>
        </l2vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/family/inet/any)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <any>
              <prefix-limit>
                <maximum>maximum</maximum>     <!-- mandatory -->
                <teardown>...</teardown>
              </prefix-limit>
            </any>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/family/inet/labeled-unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <labeled-unicast>
              <prefix-limit>
                <maximum>maximum</maximum>     <!-- mandatory -->
                <teardown>...</teardown>
              </prefix-limit>
            </labeled-unicast>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/family/inet/multicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <multicast>
              <prefix-limit>
                <maximum>maximum</maximum>     <!-- mandatory -->
                <teardown>...</teardown>
              </prefix-limit>
            </multicast>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/family/inet/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <unicast>
              <prefix-limit>
                <maximum>maximum</maximum>     <!-- mandatory -->
                <teardown>...</teardown>
              </prefix-limit>
            </unicast>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/family/inet-vpn/any)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet-vpn>
            <any>
              <prefix-limit>
                <maximum>maximum</maximum>     <!-- mandatory -->
                <teardown>...</teardown>
              </prefix-limit>
            </any>
          </inet-vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/family/inet-vpn/multicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet-vpn>
            <multicast>
              <prefix-limit>
                <maximum>maximum</maximum>     <!-- mandatory -->
                <teardown>...</teardown>
              </prefix-limit>
            </multicast>
          </inet-vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/family/inet-vpn/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet-vpn>
            <unicast>
              <prefix-limit>
                <maximum>maximum</maximum>     <!-- mandatory -->
                <teardown>...</teardown>
              </prefix-limit>
            </unicast>
          </inet-vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/family/inet6/any)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <any>
              <prefix-limit>
                <maximum>maximum</maximum>     <!-- mandatory -->
                <teardown>...</teardown>
              </prefix-limit>
            </any>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/family/inet6/labeled-unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <labeled-unicast>
              <prefix-limit>
                <maximum>maximum</maximum>     <!-- mandatory -->
                <teardown>...</teardown>
              </prefix-limit>
            </labeled-unicast>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/family/inet6/multicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <multicast>
              <prefix-limit>
                <maximum>maximum</maximum>     <!-- mandatory -->
                <teardown>...</teardown>
              </prefix-limit>
            </multicast>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/family/inet6/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <unicast>
              <prefix-limit>
                <maximum>maximum</maximum>     <!-- mandatory -->
                <teardown>...</teardown>
              </prefix-limit>
            </unicast>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/family/l2vpn/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <l2vpn>
            <unicast>
              <prefix-limit>
                <maximum>maximum</maximum>     <!-- mandatory -->
                <teardown>...</teardown>
              </prefix-limit>
            </unicast>
          </l2vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/neighbor/family/inet/any)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <any>
                <prefix-limit>
                  <maximum>maximum</maximum>     <!-- mandatory -->
                  <teardown>...</teardown>
                </prefix-limit>
              </any>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/neighbor/family/inet/labeled-unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <labeled-unicast>
                <prefix-limit>
                  <maximum>maximum</maximum>     <!-- mandatory -->
                  <teardown>...</teardown>
                </prefix-limit>
              </labeled-unicast>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/neighbor/family/inet/multicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <multicast>
                <prefix-limit>
                  <maximum>maximum</maximum>     <!-- mandatory -->
                  <teardown>...</teardown>
                </prefix-limit>
              </multicast>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/neighbor/family/inet/unicast)

Usage

```
<configuration>
   <protocols>
      <bgp>
         <group>
            <neighbor>
               <family>
                  <inet>
                     <unicast>
                        <prefix-limit>
                           <maximum>maximum</maximum>     <!-- mandatory -->
                           <teardown>...</teardown>
                        </prefix-limit>
                     </unicast>
                  </inet>
               </family>
            </neighbor>
         </group>
      </bgp>
   </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/neighbor/family/inet-vpn/any)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet-vpn>
              <any>
                <prefix-limit>
                  <maximum>maximum</maximum>     <!-- mandatory -->
                  <teardown>...</teardown>
                </prefix-limit>
              </any>
            </inet-vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/neighbor/family/inet-vpn/multicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet-vpn>
              <multicast>
                <prefix-limit>
                  <maximum>maximum</maximum>     <!-- mandatory -->
                  <teardown>...</teardown>
                </prefix-limit>
              </multicast>
            </inet-vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/neighbor/family/inet-vpn/unicast)

Usage

```
<configuration>
   <protocols>
      <bgp>
         <group>
            <neighbor>
               <family>
                  <inet-vpn>
                     <unicast>
                        <prefix-limit>
                           <maximum>maximum</maximum>     <!-- mandatory -->
                           <teardown>...</teardown>
                        </prefix-limit>
                     </unicast>
                  </inet-vpn>
               </family>
            </neighbor>
         </group>
      </bgp>
   </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/neighbor/family/inet6/any)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <any>
                <prefix-limit>
                  <maximum>maximum</maximum>     <!-- mandatory -->
                  <teardown>...</teardown>
                </prefix-limit>
              </any>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/neighbor/family/inet6/labeled-unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <labeled-unicast>
                <prefix-limit>
                  <maximum>maximum</maximum>     <!-- mandatory -->
                  <teardown>...</teardown>
                </prefix-limit>
              </labeled-unicast>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/neighbor/family/inet6/multicast)

Usage

```
<configuration>
   <protocols>
      <bgp>
         <group>
            <neighbor>
               <family>
                  <inet6>
                     <multicast>
                        <prefix-limit>
                           <maximum>maximum</maximum>     <!-- mandatory -->
                           <teardown>...</teardown>
                        </prefix-limit>
                     </multicast>
                  </inet6>
               </family>
            </neighbor>
         </group>
      </bgp>
   </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/neighbor/family/inet6/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <unicast>
                <prefix-limit>
                  <maximum>maximum</maximum>     <!-- mandatory -->
                  <teardown>...</teardown>
                </prefix-limit>
              </unicast>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/protocols/bgp/group/neighbor/family/l2vpn/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <l2vpn>
              <unicast>
                <prefix-limit>
                  <maximum>maximum</maximum>     <!-- mandatory -->
                  <teardown>...</teardown>
                </prefix-limit>
              </unicast>
            </l2vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration / routing-instances / instance / protocols / bgp / family / inet / any)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <protocols>
            <bgp>
               <family>
                  <inet>
                     <any>
                        <prefix-limit>
                           <maximum>maximum</maximum>     <!-- mandatory -->
                           <teardown>...</teardown>
                        </prefix-limit>
                     </any>
                  </inet>
               </family>
            </bgp>
         </protocols>
      </instance>
   </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/family/inet/labeled-unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <labeled-unicast>
                <prefix-limit>
                  <maximum>maximum</maximum>     <!-- mandatory -->
                  <teardown>...</teardown>
                </prefix-limit>
              </labeled-unicast>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/family/inet/multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <multicast>
                <prefix-limit>
                  <maximum>maximum</maximum>     <!-- mandatory -->
                  <teardown>...</teardown>
                </prefix-limit>
              </multicast>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/family/inet/unicast)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <protocols>
            <bgp>
               <family>
                  <inet>
                     <unicast>
                        <prefix-limit>
                           <maximum>maximum</maximum>     <!-- mandatory -->
                           <teardown>...</teardown>
                        </prefix-limit>
                     </unicast>
                  </inet>
               </family>
            </bgp>
         </protocols>
      </instance>
   </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/family/inet-vpn/any)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet-vpn>
              <any>
                <prefix-limit>
                  <maximum>maximum</maximum>     <!-- mandatory -->
                  <teardown>...</teardown>
                </prefix-limit>
              </any>
            </inet-vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/family/inet-vpn/multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet-vpn>
              <multicast>
                <prefix-limit>
                  <maximum>maximum</maximum>     <!-- mandatory -->
                  <teardown>...</teardown>
                </prefix-limit>
              </multicast>
            </inet-vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/family/inet-vpn/unicast)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <protocols>
            <bgp>
               <family>
                  <inet-vpn>
                     <unicast>
                        <prefix-limit>
                           <maximum>maximum</maximum>     <!-- mandatory -->
                           <teardown>...</teardown>
                        </prefix-limit>
                     </unicast>
                  </inet-vpn>
               </family>
            </bgp>
         </protocols>
      </instance>
   </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/family/inet6/any)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <any>
                <prefix-limit>
                  <maximum>maximum</maximum>     <!-- mandatory -->
                  <teardown>...</teardown>
                </prefix-limit>
              </any>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/family/inet6/labeled-unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <labeled-unicast>
                <prefix-limit>
                  <maximum>maximum</maximum>     <!-- mandatory -->
                  <teardown>...</teardown>
                </prefix-limit>
              </labeled-unicast>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/family/inet6/multicast)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <protocols>
            <bgp>
               <family>
                  <inet6>
                     <multicast>
                        <prefix-limit>
                           <maximum>maximum</maximum>     <!-- mandatory -->
                           <teardown>...</teardown>
                        </prefix-limit>
                     </multicast>
                  </inet6>
               </family>
            </bgp>
         </protocols>
      </instance>
   </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/family/inet6/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <unicast>
                <prefix-limit>
                  <maximum>maximum</maximum>     <!-- mandatory -->
                  <teardown>...</teardown>
                </prefix-limit>
              </unicast>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/family/l2vpn/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <l2vpn>
              <unicast>
                <prefix-limit>
                  <maximum>maximum</maximum>     <!-- mandatory -->
                  <teardown>...</teardown>
                </prefix-limit>
              </unicast>
            </l2vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/group/family/inet/any)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <protocols>
            <bgp>
               <group>
                  <family>
                     <inet>
                        <any>
                           <prefix-limit>
                              <maximum>maximum</maximum>     <!-- mandatory -->
                              <teardown>...</teardown>
                           </prefix-limit>
                        </any>
                     </inet>
                  </family>
               </group>
            </bgp>
         </protocols>
      </instance>
   </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/group/family/inet/labeled-unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <labeled-unicast>
                  <prefix-limit>
                    <maximum>maximum</maximum>     <!-- mandatory -->
                    <teardown>...</teardown>
                  </prefix-limit>
                </labeled-unicast>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/group/family/inet/multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <multicast>
                  <prefix-limit>
                    <maximum>maximum</maximum>     <!-- mandatory -->
                    <teardown>...</teardown>
                  </prefix-limit>
                </multicast>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/group/family/inet/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <unicast>
                  <prefix-limit>
                    <maximum>maximum</maximum>     <!-- mandatory -->
                    <teardown>...</teardown>
                  </prefix-limit>
                </unicast>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/group/family/inet-vpn/any)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet-vpn>
                <any>
                  <prefix-limit>
                    <maximum>maximum</maximum>     <!-- mandatory -->
                    <teardown>...</teardown>
                  </prefix-limit>
                </any>
              </inet-vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/group/family/inet-vpn/multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet-vpn>
                <multicast>
                  <prefix-limit>
                    <maximum>maximum</maximum>     <!-- mandatory -->
                    <teardown>...</teardown>
                  </prefix-limit>
                </multicast>
              </inet-vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/group/family/inet-vpn/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet-vpn>
                <unicast>
                  <prefix-limit>
                    <maximum>maximum</maximum>     <!-- mandatory -->
                    <teardown>...</teardown>
                  </prefix-limit>
                </unicast>
              </inet-vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/group/family/inet6/any)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet6>
                <any>
                  <prefix-limit>
                    <maximum>maximum</maximum>     <!-- mandatory -->
                    <teardown>...</teardown>
                  </prefix-limit>
                </any>
              </inet6>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/group/family/inet6/labeled-unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet6>
                <labeled-unicast>
                  <prefix-limit>
                    <maximum>maximum</maximum>     <!-- mandatory -->
                    <teardown>...</teardown>
                  </prefix-limit>
                </labeled-unicast>
              </inet6>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/group/family/inet6/multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet6>
                <multicast>
                  <prefix-limit>
                    <maximum>maximum</maximum>     <!-- mandatory -->
                    <teardown>...</teardown>
                  </prefix-limit>
                </multicast>
              </inet6>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/group/family/inet6/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet6>
                <unicast>
                  <prefix-limit>
                    <maximum>maximum</maximum>     <!-- mandatory -->
                    <teardown>...</teardown>
                  </prefix-limit>
                </unicast>
              </inet6>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/group/family/l2vpn/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <l2vpn>
                <unicast>
                  <prefix-limit>
                    <maximum>maximum</maximum>     <!-- mandatory -->
                    <teardown>...</teardown>
                  </prefix-limit>
                </unicast>
              </l2vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet / any)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <any>
                    <prefix-limit>
                      <maximum>maximum</maximum>     <!-- mandatory -->
                      <teardown>...</teardown>
                    </prefix-limit>
                  </any>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet / labeled-unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <labeled-unicast>
                    <prefix-limit>
                      <maximum>maximum</maximum>     <!-- mandatory -->
                      <teardown>...</teardown>
                    </prefix-limit>
                  </labeled-unicast>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet / multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <multicast>
                    <prefix-limit>
                      <maximum>maximum</maximum>     <!-- mandatory -->
                      <teardown>...</teardown>
                    </prefix-limit>
                  </multicast>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet / unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <unicast>
                    <prefix-limit>
                      <maximum>maximum</maximum>     <!-- mandatory -->
                      <teardown>...</teardown>
                    </prefix-limit>
                  </unicast>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet-vpn / any)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet-vpn>
                  <any>
                    <prefix-limit>
                      <maximum>maximum</maximum>     <!-- mandatory -->
                      <teardown>...</teardown>
                    </prefix-limit>
                  </any>
                </inet-vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet-vpn / multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet-vpn>
                  <multicast>
                    <prefix-limit>
                      <maximum>maximum</maximum>     <!-- mandatory -->
                      <teardown>...</teardown>
                    </prefix-limit>
                  </multicast>
                </inet-vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet-vpn/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet-vpn>
                  <unicast>
                    <prefix-limit>
                      <maximum>maximum</maximum>     <!-- mandatory -->
                      <teardown>...</teardown>
                    </prefix-limit>
                  </unicast>
                </inet-vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet6 / any)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <any>
                    <prefix-limit>
                      <maximum>maximum</maximum>     <!-- mandatory -->
                      <teardown>...</teardown>
                    </prefix-limit>
                  </any>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet6/labeled-unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <labeled-unicast>
                    <prefix-limit>
                      <maximum>maximum</maximum>     <!-- mandatory -->
                      <teardown>...</teardown>
                    </prefix-limit>
                  </labeled-unicast>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet6/multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <multicast>
                    <prefix-limit>
                      <maximum>maximum</maximum>     <!-- mandatory -->
                      <teardown>...</teardown>
                    </prefix-limit>
                  </multicast>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet6 / unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <unicast>
                    <prefix-limit>
                      <maximum>maximum</maximum>     <!-- mandatory -->
                      <teardown>...</teardown>
                    </prefix-limit>
                  </unicast>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-limit> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/l2vpn/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <l2vpn>
                  <unicast>
                    <prefix-limit>
                      <maximum>maximum</maximum>     <!-- mandatory -->
                      <teardown>...</teardown>
                    </prefix-limit>
                  </unicast>
                </l2vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Limit maximum number of prefixes from a peer.

Contents <maximum>—Maximum number of prefixes from a peer.

<teardown>—Clear peer connection on reaching limit.

<prefix-list> (configuration/firewall/family/inet/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <prefix-list>
                <name>name</name>     <!-- identifier -->
                <except/>
              </prefix-list>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match IP source or destination prefix list.

Contents <except>—Match addresses not in this prefix list.

<name>—Prefix list to match.

<prefix-list> (configuration/firewall/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <prefix-list>
            <name>name</name>     <!-- identifier -->
            <except/>
          </prefix-list>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match IP source or destination prefix list.

Contents <except>—Match addresses not in this prefix list.

<name>—Prefix list to match.

<prefix-list> (configuration/policy-options)

Usage

```
<configuration>
  <policy-options>
    <prefix-list>
      <name>name</name>     <!-- identifier -->
      <prefix-list-item>...</prefix-list-item>
      <apply-path>apply-path</apply-path>
    </prefix-list>
  </policy-options>
</configuration>
```

Description Define a named set of address prefixes.

Contents <apply-path>—Apply IP prefixes from a configuration statement.

<name>—Prefix list name.

<prefix-list-item>—No documentation is available yet.

<prefix-list> (configuration/policy-options/policy-statement/from)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <prefix-list>
          <name>name</name>     <!-- identifier -->
        </prefix-list>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description List of prefix-lists of routes to match.

Contents <name>—Name of prefix-list of routes to match.

<prefix-list> (configuration/policy-options/policy-statement/term/from)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <prefix-list>
            <name>name</name>     <!-- identifier -->
          </prefix-list>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description List of prefix-lists of routes to match.

Contents <name>—Name of prefix-list of routes to match.

<prefix-list-item> (configuration/policy-options/prefix-list)

Usage

```
<configuration>
  <policy-options>
    <prefix-list>
      <prefix-list-item>
        <name>name</name>     <!-- identifier -->
      </prefix-list-item>
    </prefix-list>
  </policy-options>
</configuration>
```

Description No documentation is available yet.

Contents <name>—Address prefix.

<prepaid> (configuration / services / ggsn / charging / characteristics)

Usage

```
<configuration>
  <services>
    <ggsn>
      <charging>
        <characteristics>
          <prepaid>
            <volume-limit>kilobytes</volume-limit>
            <time-limit>minutes</time-limit>
            <call-detail/>
            <change-limit>change-limit</change-limit>
          </prepaid>
        </characteristics>
      </charging>
    </ggsn>
  </services>
</configuration>
```

Description Prepaid clients.

Contents <call-detail>—Generate call detail records.

<change-limit>—Maximum record changes to buffer on PIC.

<time-limit>—Time to buffer charging data.

<volume-limit>—Volume of charging data to buffer.

<primary> (configuration/protocols/mpls/label-switched-path)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <primary>
          <name>name</name>     <!-- identifier -->
          <bandwidth>bandwidth</bandwidth>
          <class-of-service>class-of-service</class-of-service>
          <no-decrement-ttl/>
          <hop-limit>hop-limit</hop-limit>
          <no-cspf/>
          <optimize-timer>seconds</optimize-timer>
          <preference>preference</preference>
          <setup-priority>setup-priority</setup-priority>
          <reservation-priority>reservation-priority</reservation-priority>
          <record/>
          <standby/>
          <admin-group>...</admin-group>
          <adaptive/>
        </primary>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Preferred path.

Contents

<adaptive>—Have the LSP smoothly cut over to new routes.

<admin-group>—Administrative group policy.

<bandwidth>—Bandwidth to reserve (bps).

<class-of-service>—Class-of-service value.

<hop-limit>—Maximum allowed router hops.

<name>—Name of path.

<no-cspf>—Disable automatic path computation.

<no-decrement-ttl>—Do not decrement the TTL within an LSP.

<optimize-timer>—Periodical path reoptimizations.

<preference>—Preference value.

<record>—Record transit routers.

<standby>—Keep backup paths in continuous standby.

<priority> (configuration / class-of-service / fabric / scheduler-map)

Usage

```
<configuration>
  <class-of-service>
    <fabric>
      <scheduler-map>
        <priority>
          <name>name</name>     <!-- identifier -->
          <scheduler>scheduler</scheduler>     <!-- mandatory -->
        </priority>
      </scheduler-map>
    </fabric>
  </class-of-service>
</configuration>
```

Description Fabric traffic priority.

Contents <name>—No documentation is available yet.

- high—High priority fabric traffic.
- low—Low priority fabric traffic.

<scheduler>—Scheduler name.

<profile> (configuration / access)

Usage

```
<configuration>
  <access>
    <profile>
      <name>name</name>     <!-- identifier -->
      <client>...</client>
      <authentication-order>...</authentication-order>
    </profile>
  </access>
</configuration>
```

Description Set of attributes that define access.

Contents <authentication-order>—Order in which authentication mechanisms are used.

<client>—Entity requesting access.

<name>—Profile name.

<promiscuous-mode> (configuration/interfaces/interface/atm-options)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <atm-options>
        <promiscuous-mode>
          <vpi>...</vpi>
        </promiscuous-mode>
      </atm-options>
    </interface>
  </interfaces>
</configuration>
```

Description Set ATM interface to promiscuous mode.

Contents <vpi>—Open this VPI in promiscuous mode.

<proposal> (configuration/security/ike)

Usage

```
<configuration>
  <security>
    <ike>
      <proposal>
        <name>name</name>     <!-- identifier -->
        <authentication-method>authentication-method-choice</authentication-method>
        <dh-group>dh-group-choice</dh-group>
        <authentication-algorithm>authentication-algorithm</authentication-algorithm>
        <encryption-algorithm>encryption-algorithm-choice</encryption-algorithm>
        <lifetime-seconds>seconds</lifetime-seconds>
      </proposal>
    </ike>
  </security>
</configuration>
```

Description Define an IKE proposal for a dynamic SA.

Contents <authentication-algorithm>—Define authentication algorithm.

- md5—MD5 authentication algorithm.
- sha1—SHA1 authentication algorithm.

<authentication-method>—Define authentication method.

- pre-shared-keys—Preshared keys.

<dh-group>—Define Diffie-Hellman group.

- group1—Diffie-Hellman Group1.
- group2—Diffie-Hellman Group2.

<encryption-algorithm>—Define encryption algorithm.

- 3des-cbc—3DES-CBC encryption algorithm.
- des-cbc—DES-CBC encryption algorithm.

<lifetime-seconds>—Lifetime, in seconds.

<name>—Proposal name.

<proposal> (configuration/security/ipsec)

Usage

```
<configuration>
  <security>
    <ipsec>
      <proposal>
        <name>name</name>     <!-- identifier -->
        <protocol>protocol-choice</protocol>
        <authentication-algorithm>authentication-algorithm</authentication-algorithm>
        <encryption-algorithm>encryption-algorithm-choice</encryption-algorithm>
        <lifetime-seconds>seconds</lifetime-seconds>
      </proposal>
    </ipsec>
  </security>
</configuration>
```

Description Define an IPSec proposal for a dynamic SA.

Contents <authentication-algorithm>—Define authentication algorithm.

- hmac-md5-96—HMAC-MD5-96 authentication algorithm.
- hmac-sha1-96—HMAC-SHA1-96 authentication algorithm.

<encryption-algorithm>—Define encryption algorithm.

- 3des-cbc—3DES-CBC encryption algorithm.
- des-cbc—DES-CBC encryption algorithm.

<lifetime-seconds>—Lifetime, in seconds.

<name>—Name of the IPSec proposal.

<protocol>—Define an IPSec protocol for the proposal.

- ah—Authentication header.
- bundle—Bundle (AH authentication + ESP encryption).
- esp—Encapsulated Security Payload header.

<proposals> (configuration/security/ike/policy)

Usage

```
<configuration>
  <security>
    <ike>
      <policy>
        <proposals>
          <name>name</name>     <!-- identifier -->
        </proposals>
      </policy>
    </ike>
  </security>
</configuration>
```

Description Define the set of IKE proposals.

Contents <name>—No documentation is available yet.

<proposals> (configuration/security/ipsec/policy)

Usage

```
<configuration>
  <security>
    <ipsec>
      <policy>
        <proposals>
          <name>name</name>     <!-- identifier -->
        </proposals>
      </policy>
    </ipsec>
  </security>
</configuration>
```

Description Define the set of IPSec proposals.

Contents <name>—No documentation is available yet.

<protocol> (configuration / class-of-service / interfaces / unit / rewrite-rules / exp)

Usage

```
<configuration>
  <class-of-service>
    <interfaces>
      <unit>
        <rewrite-rules>
          <exp>
            <protocol>
              <name>name</name>     <!-- identifier -->
            </protocol>
          </exp>
        </rewrite-rules>
      </unit>
    </interfaces>
  </class-of-service>
</configuration>
```

Description Specify protocol matching criteria.

Contents <name>—Specify protocol matching criteria.

- mpls-any—Apply to MPLS packets, write MPLS header only.
- mpls-inet-both—Apply to IPv4 MPLS packets, write MPLS and IPv4 header.

<protocol> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <protocol>
                <name>name</name>     <!-- identifier -->
              </protocol>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match IP protocol type.

Contents <name>—No documentation is available yet.

- ah—IPSec AH.
- dstopts—IPv6 destination options.
- egp—EGP.

- esp—IPSec ESP.
- fragment—IPv6 fragment header.
- gre—GRE.
- hop-by-hop—IPv6 hop-by-hop options.
- icmp—ICMP.
- icmpv6—ICMP V6.
- igmp—IGMP.
- ipip—IP in IP.
- ipv6—IPv6 in IP.
- name—Range of values.
- no-next-header—IPv6 no next header.
- ospf—OSPF.
- pim—PIM.
- routing—IPv6 routing header.
- rsvp—RSVP.
- tcp—TCP.
- udp—UDP.

<protocol> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <protocol>
            <name>name</name>     <!-- identifier -->
          </protocol>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match IP protocol type.

Contents <name>—No documentation is available yet.

- ah—IPSec AH.
- dstopts—IPv6 destination options.
- egp—EGP.
- esp—IPSec ESP.
- fragment—IPv6 fragment header.
- gre—GRE.
- hop-by-hop—IPv6 hop-by-hop options.
- icmp—ICMP.
- icmpv6—ICMP V6.
- igmp—IGMP.
- ipip—IP in IP.
- ipv6—IPv6 in IP.
- name—Range of values.
- no-next-header—IPv6 no next header.
- ospf—OSPF.
- pim—PIM.
- routing—IPv6 routing header.
- rsvp—RSVP.
- tcp—TCP.
- udp—UDP.

<protocol> (configuration / policy-options / policy-statement / from)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <protocol>
          <name>name</name>     <!-- identifier -->
        </protocol>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Protocol from which route was learned.

Contents <name>—Protocol from which route was learned.

- aggregate—Aggregate routes.
- bgp—BGP.
- direct—Directly connected routes.
- dvmrp—DVMRP.
- isis—IS-IS.
- ldp—LDP.
- local—Local system addresses.
- msdp—Multicast Source Discovery.
- ospf—OSPF.
- pim—PIM.
- rip—RIP.
- ripng—RIPng.
- rsvp—RSVP.
- static—Statically defined addresses.

<protocol> (configuration / policy-options / policy-statement / term / from)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <protocol>
            <name>name</name>     <!-- identifier -->
          </protocol>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Protocol from which route was learned.

Contents <name>—Protocol from which route was learned.

- aggregate—Aggregate routes.
- bgp—BGP.
- direct—Directly connected routes.
- dvmrp—DVMRP.
- isis—IS-IS.
- ldp—LDP.
- local—Local system addresses.
- msdp—Multicast Source Discovery.
- ospf—OSPF.
- pim—PIM.
- rip—RIP.
- ripng—RIPng.
- rsvp—RSVP.
- static—Statically defined addresses.

<protocol> (configuration / policy-options / policy-statement / term / to)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <to>
          <protocol>
            <name>name</name>     <!-- identifier -->
          </protocol>
        </to>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Protocol from which route was learned.

Contents <name>—Protocol from which route was learned.

- aggregate—Aggregate routes.
- bgp—BGP.
- direct—Directly connected routes.
- dvmrp—DVMRP.
- isis—IS-IS.
- ldp—LDP.
- local—Local system addresses.
- msdp—Multicast Source Discovery.
- ospf—OSPF.
- pim—PIM.
- rip—RIP.
- ripng—RIPng.
- rsvp—RSVP.
- static—Statically defined addresses.

<protocol> (configuration / policy-options / policy-statement / to)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <to>
        <protocol>
          <name>name</name>     <!-- identifier -->
        </protocol>
      </to>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Protocol from which route was learned.

Contents <name>—Protocol from which route was learned.

- aggregate—Aggregate routes.
- bgp—BGP.
- direct—Directly connected routes.
- dvmrp—DVMRP.
- isis—IS-IS.
- ldp—LDP.
- local—Local system addresses.
- msdp—Multicast Source Discovery.
- ospf—OSPF.
- pim—PIM.
- rip—RIP.
- ripng—RIPng.
- rsvp—RSVP.
- static—Statically defined addresses.

<protocol-except> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <protocol-except>
                <name>name</name>     <!-- identifier -->
              </protocol-except>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Do not match IP protocol type.

Contents <name>—No documentation is available yet.

- ah—IPSec AH.
- dstopts—IPv6 destination options.
- egp—EGP.
- esp—IPSec ESP.
- fragment—IPv6 fragment header.
- gre—GRE.
- hop-by-hop—IPv6 hop-by-hop options.
- icmp—ICMP.
- icmpv6—ICMP V6.
- igmp—IGMP.
- ipip—IP in IP.
- ipv6—IPv6 in IP.
- name—Range of values.
- no-next-header—IPv6 no next header.
- ospf—OSPF.
- pim—PIM.
- routing—IPv6 routing header.

- rsvp—RSVP.
- tcp—TCP.
- udp—UDP.

<protocol-except> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <protocol-except>
            <name>name</name>     <!-- identifier -->
          </protocol-except>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Do not match IP protocol type.

Contents <name>—No documentation is available yet.

- ah—IPSec AH.
- dstopts—IPv6 destination options.
- egp—EGP.
- esp—IPSec ESP.
- fragment—IPv6 fragment header.
- gre—GRE.
- hop-by-hop—IPv6 hop-by-hop options.
- icmp—ICMP.
- icmpv6—ICMP V6.
- igmp—IGMP.
- ipip—IP in IP.
- ipv6—IPv6 in IP.
- name—Range of values.
- no-next-header—IPv6 no next header.
- ospf—OSPF.

- pim—PIM.
- routing—IPv6 routing header.
- rsvp—RSVP.
- tcp—TCP.
- udp—UDP.

<protocol-version> (configuration/system/services/ssh)

Usage

```
<configuration>
  <system>
    <services>
      <ssh>
        <protocol-version>
          <name>name</name>     <!-- identifier -->
        </protocol-version>
      </ssh>
    </services>
  </system>
</configuration>
```

Description Specify ssh protocol versions supported.

Contents <name>—Specify ssh protocol versions supported.

- v1—Version 1 ssh protocol.
- v2—Version 2 ssh protocol.

<protocols> (configuration)

Usage

```
<configuration>
  <protocols>
    <igmp>...</igmp>
    <mld>...</mld>
    <router-discovery>...</router-discovery>
    <router-advertisement>...</router-advertisement>
    <sap>...</sap>
    <rsvp>...</rsvp>
    <mpls>...</mpls>
    <bgp>...</bgp>
    <dvmrp>...</dvmrp>
    <isis>...</isis>
    <msdp>...</msdp>
    <ospf>...</ospf>
    <ospf3>...</ospf3>
    <ldp>...</ldp>
    <pim>...</pim>
    <rip>...</rip>
    <ripng>...</ripng>
    <connections>...</connections>
    <vrrp>...</vrrp>
    <l2circuit>...</l2circuit>
    <link-management>...</link-management>
  </protocols>
</configuration>
```

Description Routing protocol configuration.

Contents <bgp>—BGP options.

<connections>—Circuit cross-connect configuration.

<dvmrp>—DVMRP options.

<igmp>—IGMP options.

<isis>—IS-IS options.

<l2circuit>—Configuration for Layer 2 circuits over MPLS.

<ldp>—LDP options.

<link-management>—LMP options.

<mld>—MLD options.

<mpls>—Multiprotocol Label Switching options.

<msdp>—MSDP options.

<ospf>—OSPF configuration.

<ospf3>—OSPFv3 configuration.

<pim>—PIM configuration.

<rip>—RIP options.

<ripng>—RIPng options.

<router-advertisement>—IPv6 router advertisement options.

<router-discovery>—ICMP router discovery options.

<rsvp>—RSVP options.

<sap>—Session Advertisement Protocol options.

<vrrp>—VRRP options.

<protocols> (configuration/routing-instances/instance)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>...</bgp>
        <ospf>...</ospf>
        <rip>...</rip>
        <isis>...</isis>
        <l2vpn>...</l2vpn>
        <pim>...</pim>
        <ldp>...</ldp>
        <router-discovery>...</router-discovery>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing protocol configuration.

Contents <bgp>—BGP options.

<isis>—IS-IS configuration.

<l2vpn>—Layer 2 VPN configuration.

<ldp>—LDP configuration.

<ospf>—OSPF configuration.

<pim>—PIM configuration.

<rip>—RIP options.

<router-discovery>—ICMP router discovery options.

<proxy> (configuration/interfaces/interface/unit/family/tcc)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <tcc>
            <proxy>
              <inet-address>inet-address</inet-address>
            </proxy>
          </tcc>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description No documentation is available yet.

Contents <inet-address>—Remote host address on non-Ethernet side of Ethernet translational cross-connect.

<qualified-next-hop> (configuration/routing-instances/instance/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <route>
              <qualified-next-hop>
                <name>name</name>     <!-- identifier -->
                <preference>preference</preference>
                <metric>metric</metric>
              </qualified-next-hop>
            </route>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Next hop with qualifiers.

Contents <metric>—Metric of qualified next hop.

<name>—Next hop to destination.

<preference>—Preference of qualified next hop.

<qualified-next-hop> (configuration/routing-instances/instance/routing-options/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <route>
            <qualified-next-hop>
              <name>name</name>     <!-- identifier -->
              <preference>preference</preference>
              <metric>metric</metric>
            </qualified-next-hop>
          </route>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Next hop with qualifiers.

Contents <metric>—Metric of qualified next hop.

<name>—Next hop to destination.

<preference>—Preference of qualified next hop.

<qualified-next-hop> (configuration/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <route>
          <qualified-next-hop>
            <name>name</name>     <!-- identifier -->
            <preference>preference</preference>
            <metric>metric</metric>
          </qualified-next-hop>
        </route>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Next hop with qualifiers.

Contents <metric>—Metric of qualified next hop.

<name>—Next hop to destination.

<preference>—Preference of qualified next hop.

<qualified-next-hop> (configuration/routing-options/static/route)

Usage

```
<configuration>
  <routing-options>
    <static>
      <route>
        <qualified-next-hop>
          <name>name</name>     <!-- identifier -->
          <preference>preference</preference>
          <metric>metric</metric>
        </qualified-next-hop>
      </route>
    </static>
  </routing-options>
</configuration>
```

Description Next hop with qualifiers.

Contents <metric>—Metric of qualified next hop.

<name>—Next hop to destination.

<preference>—Preference of qualified next hop.

<quality-of-service> (configuration/services/ggsn/apn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <quality-of-service>
          <conversational-1>...</conversational-1>
          <conversational-2>...</conversational-2>
          <streaming-1>...</streaming-1>
          <streaming-2>...</streaming-2>
          <interactive-1>...</interactive-1>
          <interactive-2>...</interactive-2>
          <interactive-3>...</interactive-3>
          <background>...</background>
        </quality-of-service>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description APN quality-of-service mapping.

Contents <background>—DSCP name for background traffic.

<conversational-1>—DSCP name for conversational class 1 traffic.

<conversational-2>—DSCP name for conversational class 2 traffic.

<interactive-1>—DSCP name for interactive class 1 traffic.

<interactive-2>—DSCP name for interactive class 2 traffic.

<interactive-3>—DSCP name for interactive class 3 traffic.

<streaming-1>—DSCP name for streaming class 1 traffic.

<streaming-2>—DSCP name for streaming class 2 traffic.

<quality-of-service> (configuration/services/ggsn/gtp)

Usage

```
<configuration>
  <services>
    <ggsn>
      <gtp>
        <quality-of-service>
          <conversational-1>...</conversational-1>
          <conversational-2>...</conversational-2>
          <streaming-1>...</streaming-1>
          <streaming-2>...</streaming-2>
          <interactive-1>...</interactive-1>
          <interactive-2>...</interactive-2>
          <interactive-3>...</interactive-3>
          <background>...</background>
        </quality-of-service>
      </gtp>
    </ggsn>
  </services>
</configuration>
```

Description Gn interface quality-of-service mapping.

Contents <background>—DSCP name for background traffic.

<conversational-1>—DSCP name for conversational class 1 traffic.

<conversational-2>—DSCP name for conversational class 2 traffic.

<interactive-1>—DSCP name for interactive class 1 traffic.

<interactive-2>—DSCP name for interactive class 2 traffic.

<interactive-3>—DSCP name for interactive class 3 traffic.

<streaming-1>—DSCP name for streaming class 1 traffic.

<streaming-2>—DSCP name for streaming class 2 traffic.

<queue> (configuration / class-of-service / forwarding-classes)

Usage

```
<configuration>
  <class-of-service>
    <forwarding-classes>
      <queue>
        <name>name</name>     <!-- identifier -->
        <class-name>class-name</class-name>     <!-- mandatory -->
        <priority>priority-choice</priority>
      </queue>
    </forwarding-classes>
  </class-of-service>
</configuration>
```

Description Queue number to map to forwarding class.

Contents <class-name>—Forwarding class name.

<name>—Queue number.

<priority>—Fabric priority.

- high—Fabric priority high.
- low—Fabric priority low.

<radius> (configuration / services / ggsn / apn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <radius>
          <authentication>...</authentication>
          <accounting>...</accounting>
          <accounting-server>...</accounting-server>
          <authentication-server>...</authentication-server>
          <outband-server>...</outband-server>
        </radius>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description RADIUS server configuration.

Contents <accounting>—RADIUS accounting settings.

<accounting-server>—RADIUS server for accounting.

<authentication>—RADIUS authentication settings.

<authentication-server>—RADIUS server for authentication.

<outband-server>—Shared RADIUS server configuration.

<radius-server> (configuration/system)

Usage

```
<configuration>
  <system>
    <radius-server>
      <name>name</name>     <!-- identifier -->
      <port>port</port>
      <secret>secret</secret>
      <timeout>seconds</timeout>
      <retry>retry</retry>
    </radius-server>
  </system>
</configuration>
```

Description RADIUS server configuration.

Contents <name>—RADIUS authentication server address.

<port>—Port number.

<retry>—Retry attempts.

<secret>—Shared secret with the authentication server.

<timeout>—Request timeout period.

<receive> (configuration/protocols/rip)

Usage

```
<configuration>
  <protocols>
    <rip>
      <receive>
        <both/>
        <none/>
        <version-1/>
        <version-2/>
      </receive>
    </rip>
  </protocols>
</configuration>
```

Description Configure RIP receive options.

Contents <both>—Accept both RIPv1 and RIPv2 packets.

<none>—Do not receive RIP packets.

<version-1>—Accept RIPv1 packets only.

<version-2>—Accept only RIPv2 packets.

<receive> (configuration/protocols/rip/group/neighbor)

Usage

```
<configuration>
  <protocols>
    <rip>
      <group>
        <neighbor>
          <receive>
            <both/>
            <none/>
            <version-1/>
            <version-2/>
          </receive>
        </neighbor>
      </group>
    </rip>
  </protocols>
</configuration>
```

Description Configure RIP receive options.

Contents <both>—Accept both RIPv1 and RIPv2 packets.

<none>—Do not receive RIP packets.

<version-1>—Accept RIPv1 packets only.

<version-2>—Accept only RIPv2 packets.

<receive> (configuration/protocols/ripng)

Usage

```
<configuration>
  <protocols>
    <ripng>
      <receive>
        <none/>
      </receive>
    </ripng>
  </protocols>
</configuration>
```

Description Configure RIPng receive options.

Contents <none>—Do not receive RIPng packets.

<receive> (configuration / protocols / ripng / group / neighbor)

Usage

```
<configuration>
  <protocols>
    <ripng>
      <group>
        <neighbor>
          <receive>
            <none/>
          </receive>
        </neighbor>
      </group>
    </ripng>
  </protocols>
</configuration>
```

Description Configure RIPng receive options.

Contents <none>—Do not receive RIPng packets.

<receive> (configuration / routing-instances / instance / protocols / rip)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <receive>
            <both/>
            <none/>
            <version-1/>
            <version-2/>
          </receive>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure RIP receive options.

Contents <both>—Accept both RIPv1 and RIPv2 packets.

<none>—Do not receive RIP packets.

<version-1>—Accept RIPv1 packets only.

<version-2>—Accept only RIPv2 packets.

<receive> (configuration/routing-instances/instance/protocols/rip/group/neighbor)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <group>
            <neighbor>
              <receive>
                <both/>
                <none/>
                <version-1/>
                <version-2/>
              </receive>
            </neighbor>
          </group>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure RIP receive options.

Contents <both>—Accept both RIPv1 and RIPv2 packets.

<none>—Do not receive RIP packets.

<version-1>—Accept RIPv1 packets only.

<version-2>—Accept only RIPv2 packets.

<receive-bucket> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <receive-bucket>
        <overflow>overflow-choice</overflow>
        <rate>rate</rate>
        <threshold>threshold</threshold>
      </receive-bucket>
    </interface>
  </interfaces>
</configuration>
```

Description Set receive bucket parameters.

Contents <overflow>—Overflow behavior.

- discard—Discard overflow packets.
- tag—Tag and count overflow packets.

<rate>—Bucket rate.

<threshold>—Bucket threshold.

<redundancy> (configuration/chassis)

Usage

```
<configuration>
  <chassis>
    <redundancy>
      <routing-engine>...</routing-engine>
      <ssb>...</ssb>
      <failover>...</failover>
      <keepalive-time>keepalive-time</keepalive-time>
    </redundancy>
  </chassis>
</configuration>
```

Description Redundancy settings.

Contents <failover>—Failover to other Routing Engine.

<keepalive-time>—Time before Routing Engine failover (seconds).

<routing-engine>—Redundancy options for Routing Engines.

<ssb>—Redundancy options for System Switch Boards (SSBs).

<redundancy> (configuration/services/ggsn/ggsnc)

Usage

```
<configuration>
  <services>
    <ggsn>
      <ggsnc>
        <redundancy>
          <arrangement>arrangement-choice</arrangement>
          <minimum-pic>minimum-pic</minimum-pic>
        </redundancy>
      </ggsnc>
    </ggsn>
  </services>
</configuration>
```

Description Preferred redundancy arrangement for GGSN-C PICs.

Contents <arrangement>—Preferred redundancy arrangement.

- backup—One or more PICs reserved for redundancy.
- none—No PIC reserved for redundancy.

<minimum-pic>—PICs that will be used before applying redundancy.

<redundancy> (configuration/services/ggsn/ggsnu)

Usage

```
<configuration>
  <services>
    <ggsn>
      <ggsnu>
        <redundancy>
          <arrangement>arrangement-choice</arrangement>
          <minimum-pic>minimum-pic</minimum-pic>
        </redundancy>
      </ggsnu>
    </ggsn>
  </services>
</configuration>
```

Description Preferred redundancy arrangement for GGSN-U PICs.

Contents <arrangement>—Preferred redundancy arrangement.

- backup—One or more PICs reserved for redundancy.
- none—No PIC reserved for redundancy.

<minimum-pic>—PICs that will be used before applying redundancy.

<reject> (configuration / firewall / family / inet / filter / term / then)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <then>
              <reject>
                <network-unreachable/>
                <host-unreachable/>
                <protocol-unreachable/>
                <port-unreachable/>
                <source-route-failed/>
                <network-unknown/>
                <host-unknown/>
                <source-host-isolated/>
                <network-prohibited/>
                <host-prohibited/>
                <bad-network-tos/>
                <bad-host-tos/>
                <administratively-prohibited/>
                <precedence-violation/>
                <precedence-cutoff/>
                <tcp-reset/>
              </reject>
            </then>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Reject the packet.

Contents <administratively-prohibited>—Send ICMP Administratively Prohibited message.

<bad-host-tos>—Send ICMP Bad Host TOS message.

<bad-network-tos>—Send ICMP Bad Network TOS message.

<host-prohibited>—Send ICMP Host Prohibited message.

<host-unknown>—Send ICMP Host Unknown message.

<host-unreachable>—Send ICMP Host Unreachable message.

<network-prohibited>—Send ICMP Network Prohibited message.

<network-unknown>—Send ICMP Network Unknown message.

<network-unreachable>—Send ICMP Network Unreachable message.

<port-unreachable>—Send ICMP Port Unreachable message.

<precedence-cutoff>—Send ICMP Precedence Cutoff message.

<precedence-violation>—Send ICMP Precedence Violation message.

<protocol-unreachable>—Send ICMP Protocol Unreachable message.

<source-host-isolated>—Send ICMP Source Host Isolated message.

<source-route-failed>—Send ICMP Source Route Failed message.

<tcp-reset>—Send TCP Reset message.

<reject> (configuration / firewall / family / inet6 / filter / term / then)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <then>
              <reject>
                <network-unreachable/>
                <host-unreachable/>
                <protocol-unreachable/>
                <port-unreachable/>
                <source-route-failed/>
                <network-unknown/>
                <host-unknown/>
                <source-host-isolated/>
                <network-prohibited/>
                <host-prohibited/>
                <bad-network-tos/>
                <bad-host-tos/>
                <administratively-prohibited/>
                <precedence-violation/>
                <precedence-cutoff/>
                <tcp-reset/>
              </reject>
            </then>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Reject the packet.

Contents <administratively-prohibited>—Send ICMP Administratively Prohibited message.

<bad-host-tos>—Send ICMP Bad Host TOS message.

<bad-network-tos>—Send ICMP Bad Network TOS message.

<host-prohibited>—Send ICMP Host Prohibited message.

<host-unknown>—Send ICMP Host Unknown message.

<host-unreachable>—Send ICMP Host Unreachable message.

<network-prohibited>—Send ICMP Network Prohibited message.

<network-unknown>—Send ICMP Network Unknown message.

<network-unreachable>—Send ICMP Network Unreachable message.

<port-unreachable>—Send ICMP Port Unreachable message.

<precedence-cutoff>—Send ICMP Precedence Cutoff message.

<precedence-violation>—Send ICMP Precedence Violation message.

<protocol-unreachable>—Send ICMP Protocol Unreachable message.

<source-host-isolated>—Send ICMP Source Host Isolated message.

<source-route-failed>—Send ICMP Source Route Failed message.

<tcp-reset>—Send TCP Reset message.

<reject> (configuration / firewall / filter / term / then)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <then>
          <reject>
            <network-unreachable/>
            <host-unreachable/>
            <protocol-unreachable/>
            <port-unreachable/>
            <source-route-failed/>
            <network-unknown/>
            <host-unknown/>
            <source-host-isolated/>
            <network-prohibited/>
            <host-prohibited/>
            <bad-network-tos/>
            <bad-host-tos/>
            <administratively-prohibited/>
            <precedence-violation/>
            <precedence-cutoff/>
            <tcp-reset/>
          </reject>
        </then>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Reject the packet.

Contents <administratively-prohibited>—Send ICMP Administratively Prohibited message.

<bad-host-tos>—Send ICMP Bad Host TOS message.

<bad-network-tos>—Send ICMP Bad Network TOS message.

<host-prohibited>—Send ICMP Host Prohibited message.

<host-unknown>—Send ICMP Host Unknown message.

<host-unreachable>—Send ICMP Host Unreachable message.

<network-prohibited>—Send ICMP Network Prohibited message.

<network-unknown>—Send ICMP Network Unknown message.

<network-unreachable>—Send ICMP Network Unreachable message.

<port-unreachable>—Send ICMP Port Unreachable message.

<precedence-cutoff>—Send ICMP Precedence Cutoff message.

<precedence-violation>—Send ICMP Precedence Violation message.

<protocol-unreachable>—Send ICMP Protocol Unreachable message.

<source-host-isolated>—Send ICMP Source Host Isolated message.

<source-route-failed>—Send ICMP Source Route Failed message.

<tcp-reset>—Send TCP Reset message.

<remote> (configuration/interfaces/interface/unit/family/tcc)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <tcc>
            <remote>
              <mac-address>mac-address</mac-address>
            </remote>
          </tcc>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description No documentation is available yet.

Contents <mac-address>—Remote host MAC address on Ethernet side of Ethernet translational cross-connect.

<remote-interface-switch> (configuration/protocols/connections)

Usage

```
<configuration>
  <protocols>
    <connections>
      <remote-interface-switch>
        <name>name</name>     <!-- identifier -->
        <interface>interface</interface>     <!-- mandatory -->
        <transmit-lsp>transmit-lsp</transmit-lsp>     <!-- mandatory -->
        <receive-lsp>receive-lsp</receive-lsp>     <!-- mandatory -->
      </remote-interface-switch>
    </connections>
  </protocols>
</configuration>
```

Description Bidirectional switch between a local and a remote interface.

Contents <interface>—Local interface name.

<name>—Name of remote interface switch.

<receive-lsp>—Name of incoming label-switched path.

<transmit-lsp>—Name of outgoing label-switched path.

<resolution> (configuration/routing-instances/instance/routing-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <resolution>
          <tracefilter>...</tracefilter>
          <traceoptions>...</traceoptions>
        </resolution>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Route next-hop resolution options.

Contents <tracefilter>—Filter policy.

<traceoptions>—Trace options.

<resolution> (configuration/routing-options)

Usage

```
<configuration>
  <routing-options>
    <resolution>
      <tracefilter>...</tracefilter>
      <traceoptions>...</traceoptions>
    </resolution>
  </routing-options>
</configuration>
```

Description Route next-hop resolution options.

Contents <tracefilter>—Filter policy.

<traceoptions>—Trace options.

<rewrite-rules> (configuration/class-of-service)

Usage

```
<configuration>
  <class-of-service>
    <rewrite-rules>
      <dscp>...</dscp>
      <exp>...</exp>
      <inet-precedence>...</inet-precedence>
    </rewrite-rules>
  </class-of-service>
</configuration>
```

Description Write code point value of outgoing packets.

Contents <dscp>—Differentiated Services (DiffServ) code point (DSCP) rewrite rule.

<exp>—MPLS EXP rewrite rule.

<inet-precedence>—IPv4 precedence rewrite rule.

<rewrite-rules> (configuration/class-of-service/interfaces/unit)

Usage

```
<configuration>
  <class-of-service>
    <interfaces>
      <unit>
        <rewrite-rules>
          <dscp>...</dscp>
          <exp>...</exp>
          <ieee-802.1>...</ieee-802.1>
          <inet-precedence>...</inet-precedence>
        </rewrite-rules>
      </unit>
    </interfaces>
  </class-of-service>
</configuration>
```

Description Rewrite rules applied to outgoing packets.

Contents <dscp>—DSCP rewrite rule.

<exp>—EXP rewrite rule.

<ieee-802.1>—IEEE-802.1 rewrite rule.

<inet-precedence>—IPv4 precedence rewrite rule.

<rib> (configuration/routing-instances/instance/routing-options)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <rib>
               <name>name</name>     <!-- identifier -->
               <static>...</static>
               <martians>...</martians>
               <aggregate>...</aggregate>
               <generate>...</generate>
               <maximum-routes>...</maximum-routes>
            </rib>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Routing table options.

Contents <aggregate>—Coalesced routes.

<generate>—Route of last resort.

<martians>—Invalid routes.

<maximum-routes>—Maximum number of routes.

<name>—Routing table name.

<static>—Static routes.

<rib> (configuration/routing-options)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <name>name</name>     <!-- identifier -->
      <static>...</static>
      <martians>...</martians>
      <aggregate>...</aggregate>
      <generate>...</generate>
      <maximum-routes>...</maximum-routes>
    </rib>
  </routing-options>
</configuration>
```

Description Routing table options.

Contents <aggregate>—Coalesced routes.

<generate>—Route of last resort.

<martians>—Invalid routes.

<maximum-routes>—Maximum number of routes.

<name>—Routing table name.

<static>—Static routes.

<rib-group> (configuration/protocols/bgp/family/inet/any)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <any>
            <rib-group>
              <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
            </rib-group>
          </any>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/family/inet/labeled-unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <labeled-unicast>
            <rib-group>
              <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
            </rib-group>
          </labeled-unicast>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/family/inet/multicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <multicast>
            <rib-group>
              <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
            </rib-group>
          </multicast>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/family/inet/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <unicast>
            <rib-group>
              <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
            </rib-group>
          </unicast>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/family/inet-vpn/any)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet-vpn>
          <any>
            <rib-group>
              <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
            </rib-group>
          </any>
        </inet-vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/family/inet-vpn/multicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet-vpn>
          <multicast>
            <rib-group>
              <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
            </rib-group>
          </multicast>
        </inet-vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/family/inet-vpn/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet-vpn>
          <unicast>
            <rib-group>
              <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
            </rib-group>
          </unicast>
        </inet-vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/family/inet6/any)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <any>
            <rib-group>
              <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
            </rib-group>
          </any>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/family/inet6/labeled-unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <labeled-unicast>
            <rib-group>
              <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
            </rib-group>
          </labeled-unicast>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/family/inet6/multicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <multicast>
            <rib-group>
              <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
            </rib-group>
          </multicast>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/family/inet6/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <unicast>
            <rib-group>
              <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
            </rib-group>
          </unicast>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/family/l2vpn/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <l2vpn>
          <unicast>
            <rib-group>
              <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
            </rib-group>
          </unicast>
        </l2vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/family/inet/any)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <any>
              <rib-group>
                <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
              </rib-group>
            </any>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/family/inet/labeled-unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <labeled-unicast>
              <rib-group>
                <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
              </rib-group>
            </labeled-unicast>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/family/inet/multicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <multicast>
              <rib-group>
                <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
              </rib-group>
            </multicast>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/family/inet/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <unicast>
              <rib-group>
                <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
              </rib-group>
            </unicast>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/family/inet-vpn/any)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet-vpn>
            <any>
              <rib-group>
                <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
              </rib-group>
            </any>
          </inet-vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/family/inet-vpn/multicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet-vpn>
            <multicast>
              <rib-group>
                <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
              </rib-group>
            </multicast>
          </inet-vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/family/inet-vpn/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet-vpn>
            <unicast>
              <rib-group>
                <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
              </rib-group>
            </unicast>
          </inet-vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/family/inet6/any)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <any>
              <rib-group>
                <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
              </rib-group>
            </any>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/family/inet6/labeled-unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <labeled-unicast>
              <rib-group>
                <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
              </rib-group>
            </labeled-unicast>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/family/inet6/multicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <multicast>
              <rib-group>
                <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
              </rib-group>
            </multicast>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/family/inet6/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <unicast>
              <rib-group>
                <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
              </rib-group>
            </unicast>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/family/l2vpn/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <l2vpn>
            <unicast>
              <rib-group>
                <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
              </rib-group>
            </unicast>
          </l2vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/neighbor/family/inet/any)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <any>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </any>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/neighbor/family/inet/labeled-unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <labeled-unicast>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </labeled-unicast>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/neighbor/family/inet/multicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <multicast>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </multicast>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration / protocols / bgp / group / neighbor / family / inet / unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <unicast>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </unicast>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration / protocols / bgp / group / neighbor / family / inet-vpn / any)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet-vpn>
              <any>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </any>
            </inet-vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/neighbor/family/inet-vpn/multicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet-vpn>
              <multicast>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </multicast>
            </inet-vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/neighbor/family/inet-vpn/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet-vpn>
              <unicast>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </unicast>
            </inet-vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/neighbor/family/inet6/any)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <any>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </any>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/neighbor/family/inet6/labeled-unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <labeled-unicast>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </labeled-unicast>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/neighbor/family/inet6/multicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <multicast>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </multicast>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/neighbor/family/inet6/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <unicast>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </unicast>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/bgp/group/neighbor/family/l2vpn/unicast)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <l2vpn>
              <unicast>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </unicast>
            </l2vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/dvmrp)

Usage

```
<configuration>
  <protocols>
    <dvmrp>
      <rib-group>
        <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
      </rib-group>
    </dvmrp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/msdp)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <rib-group>
        <ribgroup-name>ribgroup-name</ribgroup-name>    <!-- mandatory -->
      </rib-group>
    </msdp>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/protocols/pim)

Usage

```
<configuration>
  <protocols>
    <pim>
      <rib-group>
        <inet-old-style>inet-old-style</inet-old-style>
        <inet>inet</inet>
        <inet6>inet6</inet6>
      </rib-group>
    </pim>
  </protocols>
</configuration>
```

Description Routing table group.

Contents <inet>—Name of the IPv4 routing table group.

<inet-old-style>—No documentation is available yet.

<inet6>—Name of the IPv6 routing table group.

<rib-group> (configuration/protocols/rip)

Usage

```
<configuration>
  <protocols>
    <rip>
      <rib-group>
        <ribgroup-name>ribgroup-name</ribgroup-name>    <!-- mandatory -->
      </rib-group>
    </rip>
  </protocols>
</configuration>
```

Description Routing table group for importing RIP routes.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/family/inet/any)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <any>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </any>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/family/inet/labeled-unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <labeled-unicast>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </labeled-unicast>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/family/inet/multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <multicast>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </multicast>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/family/inet/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <unicast>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </unicast>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/family/inet-vpn/any)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet-vpn>
              <any>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </any>
            </inet-vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/family/inet-vpn/multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet-vpn>
              <multicast>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </multicast>
            </inet-vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/family/inet-vpn/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet-vpn>
              <unicast>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </unicast>
            </inet-vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/family/inet6/any)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <any>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </any>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/family/inet6/labeled-unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <labeled-unicast>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </labeled-unicast>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/family/inet6/multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <multicast>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </multicast>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/family/inet6/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <unicast>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </unicast>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/family/l2vpn/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <l2vpn>
              <unicast>
                <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
                </rib-group>
              </unicast>
            </l2vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/family/inet/any)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <any>
                  <rib-group>
                    <ribgroup-name>ribgroup-name</ribgroup-name> <!-- mandatory -->
                  </rib-group>
                </any>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/family/inet/labeled-unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <labeled-unicast>
                  <rib-group>
                    <ribgroup-name>ribgroup-name</ribgroup-name> <!-- mandatory -->
                  </rib-group>
                </labeled-unicast>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/family/inet/multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <multicast>
                  <rib-group>
                    <ribgroup-name>ribgroup-name</ribgroup-name> <!-- mandatory -->
                  </rib-group>
                </multicast>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/family/inet/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <unicast>
                  <rib-group>
                    <ribgroup-name>ribgroup-name</ribgroup-name> <!-- mandatory -->
                  </rib-group>
                </unicast>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/family/inet-vpn/any)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet-vpn>
                <any>
                  <rib-group>
                    <ribgroup-name>ribgroup-name</ribgroup-name> <!-- mandatory -->
                  </rib-group>
                </any>
              </inet-vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/family/inet-vpn/multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet-vpn>
                <multicast>
                  <rib-group>
                    <ribgroup-name>ribgroup-name</ribgroup-name> <!-- mandatory -->
                  </rib-group>
                </multicast>
              </inet-vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/family/inet-vpn/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet-vpn>
                <unicast>
                  <rib-group>
                    <ribgroup-name>ribgroup-name</ribgroup-name> <!-- mandatory -->
                  </rib-group>
                </unicast>
              </inet-vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/family/inet6/any)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet6>
                <any>
                  <rib-group>
                    <ribgroup-name>ribgroup-name</ribgroup-name> <!-- mandatory -->
                  </rib-group>
                </any>
              </inet6>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/family/inet6/labeled-unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet6>
                <labeled-unicast>
                  <rib-group>
                    <ribgroup-name>ribgroup-name</ribgroup-name> <!-- mandatory -->
                  </rib-group>
                </labeled-unicast>
              </inet6>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/family/inet6/multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet6>
                <multicast>
                  <rib-group>
                    <ribgroup-name>ribgroup-name</ribgroup-name> <!-- mandatory -->
                  </rib-group>
                </multicast>
              </inet6>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/family/inet6/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet6>
                <unicast>
                  <rib-group>
                    <ribgroup-name>ribgroup-name</ribgroup-name> <!-- mandatory -->
                  </rib-group>
                </unicast>
              </inet6>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/family/l2vpn/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <l2vpn>
                <unicast>
                  <rib-group>
                    <ribgroup-name>ribgroup-name</ribgroup-name> <!-- mandatory -->
                  </rib-group>
                </unicast>
              </l2vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet/any)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <any>
                    <rib-group>
                      <ribgroup-name>ribgroup</ribgroup-name> <!-- mandatory -->
                    </rib-group>
                  </any>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet/labeled-unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <labeled-unicast>
                    <rib-group>
                      <ribgroup-name>ribgroup</ribgroup-name>     <!-- mandatory -->
                    </rib-group>
                  </labeled-unicast>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet/multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <multicast>
                    <rib-group>
                      <ribgroup-name>ribgrou</ribgroup-name>     <!-- mandatory -->
                    </rib-group>
                  </multicast>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <unicast>
                    <rib-group>
                      <ribgroup-name>ribgroup</ribgroup-name>     <!-- mandatory -->
                    </rib-group>
                  </unicast>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet-vpn/any)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet-vpn>
                  <any>
                    <rib-group>
                      <ribgroup-name>ribgroup</ribgroup-name>     <!-- mandatory -->
                    </rib-group>
                  </any>
                </inet-vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet-vpn/multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet-vpn>
                  <multicast>
                    <rib-group>
                      <ribgroup-name>ribgroup</ribgroup-name>     <!-- mandatory -->
                    </rib-group>
                  </multicast>
                </inet-vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet-vpn/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet-vpn>
                  <unicast>
                    <rib-group>
                      <ribgroup-name>ribgroup</ribgroup-name>     <!-- mandatory -->
                    </rib-group>
                  </unicast>
                </inet-vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet6/any)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <any>
                    <rib-group>
                      <ribgroup-name>ribgroup</ribgroup-name>     <!-- mandatory -->
                    </rib-group>
                  </any>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet6/labeled-unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <labeled-unicast>
                    <rib-group>
                      <ribgroup-name>ribgroup</ribgroup-name>     <!-- mandatory -->
                    </rib-group>
                  </labeled-unicast>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet6/multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <multicast>
                    <rib-group>
                      <ribgroup-name>ribgroup</ribgroup-name>     <!-- mandatory -->
                    </rib-group>
                  </multicast>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet6/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <unicast>
                    <rib-group>
                      <ribgroup-name>ribgroup</ribgroup-name>     <!-- mandatory -->
                    </rib-group>
                  </unicast>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/l2vpn/unicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <l2vpn>
                  <unicast>
                    <rib-group>
                      <ribgroup-name>ribgroup</ribgroup-name>     <!-- mandatory -->
                    </rib-group>
                  </unicast>
                </l2vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/pim)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <rib-group>
            <inet-old-style>inet-old-style</inet-old-style>
            <inet>inet</inet>
            <inet6>inet6</inet6>
          </rib-group>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Routing table group.

Contents <inet>—Name of the IPv4 routing table group.

<inet-old-style>—No documentation is available yet.

<inet6>—Name of the IPv6 routing table group.

<rib-group> (configuration/routing-instances/instance/protocols/rip)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <protocols>
            <rip>
               <rib-group>
                  <ribgroup-name>ribgroup-name</ribgroup-name>     <!-- mandatory -->
               </rib-group>
            </rip>
         </protocols>
      </instance>
   </routing-instances>
</configuration>
```

Description Routing table group for importing RIP routes.

Contents <ribgroup-name>—Name of the routing table group.

<rib-group> (configuration/routing-instances/instance/routing-options/interface-routes)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <interface-routes>
               <rib-group>
                  <inet-old-style>inet-old-style</inet-old-style>
                  <inet>inet</inet>
                  <inet6>inet6</inet6>
               </rib-group>
            </interface-routes>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Routing table group.

Contents <inet>—Name of the IPv4 routing table group.

<inet-old-style>—No documentation is available yet.

<inet6>—Name of the IPv6 routing table group.

<rib-group> (configuration / routing-options / interface-routes)

Usage

```
<configuration>
  <routing-options>
    <interface-routes>
      <rib-group>
        <inet-old-style>inet-old-style</inet-old-style>
        <inet>inet</inet>
        <inet6>inet6</inet6>
      </rib-group>
    </interface-routes>
  </routing-options>
</configuration>
```

Description Routing table group.

Contents <inet>—Name of the IPv4 routing table group.

<inet-old-style>—No documentation is available yet.

<inet6>—Name of the IPv6 routing table group.

<rib-groups> (configuration / routing-instances / instance / routing-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib-groups>
          <name>name</name>     <!-- identifier -->
          <export-rib>export-rib</export-rib>
          <import-rib>...</import-rib>
          <import-policy>...</import-policy>
        </rib-groups>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Group of routing tables.

Contents <export-rib>—Export routing table.

<import-policy>—Import policy.

<import-rib>—Import routing table.

<name>—Routing table group.

<rib-groups> (configuration/routing-options)

Usage

```
<configuration>
  <routing-options>
    <rib-groups>
      <name>name</name>     <!-- identifier -->
      <export-rib>export-rib</export-rib>
      <import-rib>...</import-rib>
      <import-policy>...</import-policy>
    </rib-groups>
  </routing-options>
</configuration>
```

Description Group of routing tables.

Contents <export-rib>—Export routing table.

<import-policy>—Import policy.

<import-rib>—Import routing table.

<name>—Routing table group.

<rip> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <rip>
      <traceoptions>...</traceoptions>
      <rib-group>...</rib-group>
      <metric-in>metric-in</metric-in>
      <send>...</send>
      <receive>...</receive>
      <check-zero/>
      <message-size>message-size</message-size>
      <import>...</import>
      <authentication-type>authentication-type-choice</authentication-type>
      <authentication-key>authentication-key</authentication-key>
      <group>...</group>
      <graceful-restart>...</graceful-restart>
    </rip>
  </protocols>
</configuration>
```

Description RIP options.

Contents <authentication-key>—Authentication key (password).

<authentication-type>—Authentication type.

- md5—MD5 authentication.
- none—No authentication.
- simple—Simple password authentication.

<check-zero>—Check reserved fields on incoming RIPv2 packets.

<graceful-restart>—RIP graceful restart options.

<group>—Instance configuration.

<import>—Import policy.

<message-size>—Number of route entries per update message.

<metric-in>—Metric value to add to incoming routes.

<receive>—Configure RIP receive options.

<rib-group>—Routing table group for importing RIP routes.

<send>—Configure RIP send options.

<traceoptions>—Trace options for RIP.

<rip> (configuration/routing-instances/instance/protocols)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <traceoptions>...</traceoptions>
          <rib-group>...</rib-group>
          <metric-in>metric-in</metric-in>
          <send>...</send>
          <receive>...</receive>
          <check-zero/>
          <message-size>message-size</message-size>
          <import>...</import>
          <authentication-type>authentication-type-choice</authentication-type>
          <authentication-key>authentication-key</authentication-key>
          <group>...</group>
          <graceful-restart>...</graceful-restart>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description RIP options.

Contents <authentication-key>—Authentication key (password).

<authentication-type>—Authentication type.

- md5—MD5 authentication.
- none—No authentication.
- simple—Simple password authentication.

<check-zero>—Check reserved fields on incoming RIPv2 packets.

<graceful-restart>—RIP graceful restart options.

<group>—Instance configuration.

<import>—Import policy.

<message-size>—Number of route entries per update message.

<metric-in>—Metric value to add to incoming routes.

<receive>—Configure RIP receive options.

<rib-group>—Routing table group for importing RIP routes.

<send>—Configure RIP send options.

<traceoptions>—Trace options for RIP.

<ripng> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <ripng>
      <traceoptions>...</traceoptions>
      <metric-in>metric-in</metric-in>
      <send>...</send>
      <receive>...</receive>
      <import>...</import>
      <group>...</group>
      <graceful-restart>...</graceful-restart>
    </ripng>
  </protocols>
</configuration>
```

Description RIPng options.

Contents <graceful-restart>—RIPng graceful restart options.

<group>—Instance configuration.

<import>—Import policy.

<metric-in>—Metric value to add to incoming routes.

<receive>—Configure RIPng receive options.

<send>—Configure RIPng send options.

<traceoptions>—Trace options for RIPng.

<rmon> (configuration/snmp)

Usage

```
<configuration>
  <snmp>
    <rmon>
      <alarm>...</alarm>
      <event>...</event>
    </rmon>
  </snmp>
</configuration>
```

Description Remote Monitoring (RMON) configuration.

Contents <alarm>—RMON alarm entries.

<event>—RMON event entries.

<root-authentication> (configuration/system)

Usage

```
<configuration>
  <system>
    <root-authentication>
      <plain-text-password-value>plain-text-password-value</plain-text-password-value>
      <encrypted-password>encrypted-password</encrypted-password>
      <ssh-rsa>...</ssh-rsa>
      <ssh-dsa>...</ssh-dsa>
      <load-key-file>load-key-file</load-key-file>
    </root-authentication>
  </system>
</configuration>
```

Description Authentication information for the root login.

Contents <encrypted-password>—Crypted password string.

<load-key-file>—File (URL) containing one or more ssh keys.

<plain-text-password-value>—Plain text password.

<ssh-dsa>—Secure shell (ssh) DSA public key string.

<ssh-rsa>—Secure shell (ssh) RSA public key string.

<route> (configuration/routing-instances/instance/routing-options/aggregate)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <route>
            <name>name</name>     <!-- identifier -->
            <policy>...</policy>
            <metric>...</metric>
            <metric2>...</metric2>
            <metric3>...</metric3>
            <metric4>...</metric4>
            <tag>...</tag>
            <tag2>...</tag2>
            <preference>...</preference>
            <preference2>...</preference2>
            <color>...</color>
            <color2>...</color2>
            <community>...</community>
            <as-path>...</as-path>
            <discard/>
            <brief/>
            <full/>
            <active/>
            <passive/>
          </route>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Individual route options.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<brief>—Include longest common sequences from contributing paths.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<full>—Include all AS numbers from all contributing paths.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<name>—Destination prefix.

<passive>—Retain inactive route in forwarding table.

<policy>—Policy filter.

<preference>—Preference value.

<preference2>—Preference value 2.

<tag>—Tag string.

<tag2>—Tag string 2.

<route> (configuration/routing-instances/instance/routing-options/generate)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <generate>
          <route>
            <name>name</name>     <!-- identifier -->
            <policy>...</policy>
            <metric>...</metric>
            <metric2>...</metric2>
            <metric3>...</metric3>
            <metric4>...</metric4>
            <tag>...</tag>
            <tag2>...</tag2>
            <preference>...</preference>
            <preference2>...</preference2>
            <color>...</color>
            <color2>...</color2>
            <community>...</community>
            <as-path>...</as-path>
            <discard/>
            <brief/>
            <full/>
            <active/>
            <passive/>
          </route>
        </generate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Individual route options.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<brief>—Include longest common sequences from contributing paths.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<full>—Include all AS numbers from all contributing paths.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<name>—Destination prefix.

<passive>—Retain inactive route in forwarding table.

<policy>—Policy filter.

<preference>—Preference value.

<preference2>—Preference value 2.

<tag>—Tag string.

<tag2>—Tag string 2.

<route> (configuration/routing-instances/instance/routing-options/rib/aggregate)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <route>
              <name>name</name>     <!-- identifier -->
              <policy>...</policy>
              <metric>...</metric>
              <metric2>...</metric2>
              <metric3>...</metric3>
              <metric4>...</metric4>
              <tag>...</tag>
              <tag2>...</tag2>
              <preference>...</preference>
              <preference2>...</preference2>
              <color>...</color>
              <color2>...</color2>
              <community>...</community>
              <as-path>...</as-path>
              <discard/>
              <brief/>
              <full/>
              <active/>
              <passive/>
            </route>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Individual route options.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<brief>—Include longest common sequences from contributing paths.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<full>—Include all AS numbers from all contributing paths.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<name>—Destination prefix.

<passive>—Retain inactive route in forwarding table.

<policy>—Policy filter.

<preference>—Preference value.

<preference2>—Preference value 2.

<tag>—Tag string.

<tag2>—Tag string 2.

<route> (configuration/routing-instances/instance/routing-options/rib/generate)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <route>
              <name>name</name>     <!-- identifier -->
              <policy>...</policy>
              <metric>...</metric>
              <metric2>...</metric2>
              <metric3>...</metric3>
              <metric4>...</metric4>
              <tag>...</tag>
              <tag2>...</tag2>
              <preference>...</preference>
              <preference2>...</preference2>
              <color>...</color>
              <color2>...</color2>
              <community>...</community>
              <as-path>...</as-path>
              <discard/>
              <brief/>
              <full/>
              <active/>
              <passive/>
            </route>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Individual route options.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<brief>—Include longest common sequences from contributing paths.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<full>—Include all AS numbers from all contributing paths.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<name>—Destination prefix.

<passive>—Retain inactive route in forwarding table.

<policy>—Policy filter.

<preference>—Preference value.

<preference2>—Preference value 2.

<tag>—Tag string.

<tag2>—Tag string 2.

<route> (configuration/routing-instances/instance/routing-options/rib/static)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <route>
              <name>name</name>     <!-- identifier -->
              <next-hop>...</next-hop>
              <reject/>
              <discard/>
              <receive/>
              <next-table>next-table</next-table>
              <qualified-next-hop>...</qualified-next-hop>
              <lsp-next-hop>...</lsp-next-hop>
              <retain/>
              <install/>
              <readvertise/>
              <resolve/>
              <active/>
              <passive/>
              <metric>...</metric>
              <metric2>...</metric2>
              <metric3>...</metric3>
              <metric4>...</metric4>
              <tag>...</tag>
              <tag2>...</tag2>
              <preference>...</preference>
              <preference2>...</preference2>
              <color>...</color>
              <color2>...</color2>
              <community>...</community>
              <as-path>...</as-path>
            </route>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Static route.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<install>—Install route into forwarding table.

<lsp-next-hop>—LSP next hop.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<name>—No documentation is available yet.

<next-hop>—Next hop to destination.

<next-table>—Next hop to another table.

<passive>—Retain inactive route in forwarding table.

<preference>—Preference value.

<preference2>—Preference value 2.

<qualified-next-hop>—Next hop with qualifiers.

<readvertise>—Mark route as eligible to be readvertised.

<receive>—Install a receive route for the destination.

<reject>—Drop packets to destination; send ICMP unreachables.

<resolve>—Allow resolution of indirectly connected next hops.

<retain>—Always keep route in forwarding table.

<tag>—Tag string.

<tag2>—Tag string 2.

<route> (configuration / routing-instances / instance / routing-options / static)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <route>
            <name>name</name>     <!-- identifier -->
            <next-hop>...</next-hop>
            <reject/>
            <discard/>
            <receive/>
            <next-table>next-table</next-table>
            <qualified-next-hop>...</qualified-next-hop>
            <lsp-next-hop>...</lsp-next-hop>
            <retain/>
            <install/>
            <readvertise/>
            <resolve/>
            <active/>
            <passive/>
            <metric>...</metric>
            <metric2>...</metric2>
            <metric3>...</metric3>
            <metric4>...</metric4>
            <tag>...</tag>
            <tag2>...</tag2>
            <preference>...</preference>
            <preference2>...</preference2>
            <color>...</color>
            <color2>...</color2>
            <community>...</community>
            <as-path>...</as-path>
          </route>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Static route.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<install>—Install route into forwarding table.

<lsp-next-hop>—LSP next hop.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<name>—No documentation is available yet.

<next-hop>—Next hop to destination.

<next-table>—Next hop to another table.

<passive>—Retain inactive route in forwarding table.

<preference>—Preference value.

<preference2>—Preference value 2.

<qualified-next-hop>—Next hop with qualifiers.

<readvertise>—Mark route as eligible to be readvertised.

<receive>—Install a receive route for the destination.

<reject>—Drop packets to destination; send ICMP unreachables.

<resolve>—Allow resolution of indirectly connected next hops.

<retain>—Always keep route in forwarding table.

<tag>—Tag string.

<tag2>—Tag string 2.

<route> (configuration/routing-options/aggregate)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <route>
        <name>name</name>     <!-- identifier -->
        <policy>...</policy>
        <metric>...</metric>
        <metric2>...</metric2>
        <metric3>...</metric3>
        <metric4>...</metric4>
        <tag>...</tag>
        <tag2>...</tag2>
        <preference>...</preference>
        <preference2>...</preference2>
        <color>...</color>
        <color2>...</color2>
        <community>...</community>
        <as-path>...</as-path>
        <discard/>
        <brief/>
        <full/>
        <active/>
        <passive/>
      </route>
    </aggregate>
  </routing-options>
</configuration>
```

Description Individual route options.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<brief>—Include longest common sequences from contributing paths.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<full>—Include all AS numbers from all contributing paths.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<name>—Destination prefix.

<passive>—Retain inactive route in forwarding table.

<policy>—Policy filter.

<preference>—Preference value.

<preference2>—Preference value 2.

<tag>—Tag string.

<tag2>—Tag string 2.

<route> (configuration/routing-options/generate)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <route>
        <name>name</name>     <!-- identifier -->
        <policy>...</policy>
        <metric>...</metric>
        <metric2>...</metric2>
        <metric3>...</metric3>
        <metric4>...</metric4>
        <tag>...</tag>
        <tag2>...</tag2>
        <preference>...</preference>
        <preference2>...</preference2>
        <color>...</color>
        <color2>...</color2>
        <community>...</community>
        <as-path>...</as-path>
        <discard/>
        <brief/>
        <full/>
        <active/>
        <passive/>
      </route>
    </generate>
  </routing-options>
</configuration>
```

Description Individual route options.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<brief>—Include longest common sequences from contributing paths.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<full>—Include all AS numbers from all contributing paths.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<name>—Destination prefix.

<passive>—Retain inactive route in forwarding table.

<policy>—Policy filter.

<preference>—Preference value.

<preference2>—Preference value 2.

<tag>—Tag string.

<tag2>—Tag string 2.

<route> (configuration/routing-options/rib/aggregate)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <route>
          <name>name</name>     <!-- identifier -->
          <policy>...</policy>
          <metric>...</metric>
          <metric2>...</metric2>
          <metric3>...</metric3>
          <metric4>...</metric4>
          <tag>...</tag>
          <tag2>...</tag2>
          <preference>...</preference>
          <preference2>...</preference2>
          <color>...</color>
          <color2>...</color2>
          <community>...</community>
          <as-path>...</as-path>
          <discard/>
          <brief/>
          <full/>
          <active/>
          <passive/>
        </route>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Individual route options.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<brief>—Include longest common sequences from contributing paths.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<full>—Include all AS numbers from all contributing paths.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<name>—Destination prefix.

<passive>—Retain inactive route in forwarding table.

<policy>—Policy filter.

<preference>—Preference value.

<preference2>—Preference value 2.

<tag>—Tag string.

<tag2>—Tag string 2.

<route> (configuration/routing-options/rib/generate)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <route>
          <name>name</name>     <!-- identifier -->
          <policy>...</policy>
          <metric>...</metric>
          <metric2>...</metric2>
          <metric3>...</metric3>
          <metric4>...</metric4>
          <tag>...</tag>
          <tag2>...</tag2>
          <preference>...</preference>
          <preference2>...</preference2>
          <color>...</color>
          <color2>...</color2>
          <community>...</community>
          <as-path>...</as-path>
          <discard/>
          <brief/>
          <full/>
          <active/>
          <passive/>
        </route>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Individual route options.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<brief>—Include longest common sequences from contributing paths.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<full>—Include all AS numbers from all contributing paths.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<name>—Destination prefix.

<passive>—Retain inactive route in forwarding table.

<policy>—Policy filter.

<preference>—Preference value.

<preference2>—Preference value 2.

<tag>—Tag string.

<tag2>—Tag string 2.

<route> (configuration/routing-options/rib/static)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <route>
          <name>name</name>     <!-- identifier -->
          <next-hop>...</next-hop>
          <reject/>
          <discard/>
          <receive/>
          <next-table>next-table</next-table>
          <qualified-next-hop>...</qualified-next-hop>
          <lsp-next-hop>...</lsp-next-hop>
          <retain/>
          <install/>
          <readvertise/>
          <resolve/>
          <active/>
          <passive/>
          <metric>...</metric>
          <metric2>...</metric2>
          <metric3>...</metric3>
          <metric4>...</metric4>
          <tag>...</tag>
          <tag2>...</tag2>
          <preference>...</preference>
          <preference2>...</preference2>
          <color>...</color>
          <color2>...</color2>
          <community>...</community>
          <as-path>...</as-path>
        </route>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Static route.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<install>—Install route into forwarding table.

<lsp-next-hop>—LSP next hop.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<name>—No documentation is available yet.

<next-hop>—Next hop to destination.

<next-table>—Next hop to another table.

<passive>—Retain inactive route in forwarding table.

<preference>—Preference value.

<preference2>—Preference value 2.

<qualified-next-hop>—Next hop with qualifiers.

<readvertise>—Mark route as eligible to be readvertised.

<receive>—Install a receive route for the destination.

<reject>—Drop packets to destination; send ICMP unreachables.

<resolve>—Allow resolution of indirectly connected next hops.

<retain>—Always keep route in forwarding table.

<tag>—Tag string.

<tag2>—Tag string 2.

<route> (configuration/routing-options/static)

Usage

```
<configuration>
  <routing-options>
    <static>
      <route>
        <name>name</name>     <!-- identifier -->
        <next-hop>...</next-hop>
        <reject/>
        <discard/>
        <receive/>
        <next-table>next-table</next-table>
        <qualified-next-hop>...</qualified-next-hop>
        <lsp-next-hop>...</lsp-next-hop>
        <retain/>
        <install/>
        <readvertise/>
        <resolve/>
        <active/>
        <passive/>
        <metric>...</metric>
        <metric2>...</metric2>
        <metric3>...</metric3>
        <metric4>...</metric4>
        <tag>...</tag>
        <tag2>...</tag2>
        <preference>...</preference>
        <preference2>...</preference2>
        <color>...</color>
        <color2>...</color2>
        <community>...</community>
        <as-path>...</as-path>
      </route>
    </static>
  </routing-options>
</configuration>
```

Description Static route.

Contents <active>—Remove inactive route from forwarding table.

<as-path>—Autonomous system path.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community identifier.

<discard>—Drop packets to destination; send no ICMP unreachables.

<install>—Install route into forwarding table.

<lsp-next-hop>—LSP next hop.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<name>—No documentation is available yet.

<next-hop>—Next hop to destination.

<next-table>—Next hop to another table.

<passive>—Retain inactive route in forwarding table.

<preference>—Preference value.

<preference2>—Preference value 2.

<qualified-next-hop>—Next hop with qualifiers.

<readvertise>—Mark route as eligible to be readvertised.

<receive>—Install a receive route for the destination.

<reject>—Drop packets to destination; send ICMP unreachables.

<resolve>—Allow resolution of indirectly connected next hops.

<retain>—Always keep route in forwarding table.

<tag>—Tag string.

<tag2>—Tag string 2.

<route-distinguisher> (configuration/routing-instances/instance)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <route-distinguisher>
        <rd-type>rd-type</rd-type>
      </route-distinguisher>
    </instance>
  </routing-instances>
</configuration>
```

Description Route distinguisher for this instance.

Contents <rd-type>—Number in (16 bit:32 bit) or (IP address:16 bit) format.

<route-filter> (configuration / policy-options / policy-statement / from)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <address>address</address>     <!-- identifier -->
          <exact/>     <!-- identifier -->
          <longer/>     <!-- identifier -->
          <orlonger/>     <!-- identifier -->
          <upto>upto</upto>     <!-- identifier -->
          <through>through</through>     <!-- identifier -->
          <prefix-length-range>prefix-length-range</prefix-length-range>     <!-- identifier -->
          <metric>...</metric>
          <metric2>...</metric2>
          <metric3>...</metric3>
          <metric4>...</metric4>
          <tag>...</tag>
          <tag2>...</tag2>
          <preference>...</preference>
          <preference2>...</preference2>
          <color>...</color>
          <color2>...</color2>
          <local-preference>...</local-preference>
          <origin>origin-choice</origin>
          <community>...</community>
          <damping>damping</damping>
          <as-path-prepend>as-path-prepend</as-path-prepend>
          <as-path-expand>...</as-path-expand>
          <next-hop>...</next-hop>
          <install-nexthop>...</install-nexthop>
          <trace/>
          <next>next-choice</next>
          <external>...</external>
          <load-balance>...</load-balance>
          <class>class</class>
          <destination-class>destination-class</destination-class>
          <source-class>source-class</source-class>
          <forwarding-class>forwarding-class</forwarding-class>
          <cos-next-hop-map>cos-next-hop-map</cos-next-hop-map>
          <default-action>default-action-choice</default-action>
          <accept/>
          <reject/>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description List of routes to match.

Contents <accept>—Accept a route.

<address>—IP address or hostname.

<as-path-expand>—Prepend AS numbers prior to adding local-as (BGP only).

<as-path-prepend>—Prepend AS numbers to an AS path (BGP only).

<class>—Set class-of-service parameters.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community properties associated with a route.

<cos-next-hop-map>—Set CoS-based next-hop map in forwarding table.

<damping>—Define BGP route flap damping parameters.

<default-action>—Set default policy action.

- accept—Accept a route.
- reject—Reject a route.

<destination-class>—Set destination class in forwarding table.

<exact>—Exactly match the prefix length.

<external>—External route.

<forwarding-class>—Set source or destination class in forwarding table.

<install-nexthop>—Choose the next hop to be used for forwarding.

<load-balance>—Type of load balancing in forwarding table.

<local-preference>—Local preference associated with a route.

<longer>—Mask is greater than the prefix length.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<next>—Skip to next policy or term.

- policy—Skip to next policy filter.
- term—Skip to next term in a policy filter.

<next-hop>—Set the address of the next-hop router.

<origin>—BGP path origin.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<orlonger>—Mask is greater than or equal to the prefix length.

<preference>—Preference value.

<preference2>—Preference value 2.

<prefix-length-range>—Mask falls between two prefix lengths.

<reject>—Reject a route.

<source-class>—Set source class in forwarding table.

<tag>—Tag string.

<tag2>—Tag string 2.

<through>—Route falls between two prefixes.

<trace>—Log matches to a trace file.

<upto>—Mask falls between two prefix lengths.

<route-filter> (configuration/policy-options/policy-statement/term/from)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <address>address</address>     <!-- identifier -->
            <exact/>     <!-- identifier -->
            <longer/>     <!-- identifier -->
            <orlonger/>     <!-- identifier -->
            <upto>upto</upto>     <!-- identifier -->
            <through>through</through>     <!-- identifier -->
            <prefix-length-range>prefix-length-range</prefix-length-range> <!-- identifier -->
            <metric>...</metric>
            <metric2>...</metric2>
            <metric3>...</metric3>
            <metric4>...</metric4>
            <tag>...</tag>
            <tag2>...</tag2>
            <preference>...</preference>
            <preference2>...</preference2>
            <color>...</color>
            <color2>...</color2>
            <local-preference>...</local-preference>
            <origin>origin-choice</origin>
            <community>...</community>
            <damping>damping</damping>
            <as-path-prepend>as-path-prepend</as-path-prepend>
            <as-path-expand>...</as-path-expand>
            <next-hop>...</next-hop>
            <install-nexthop>...</install-nexthop>
            <trace/>
            <next>next-choice</next>
            <external>...</external>
            <load-balance>...</load-balance>
            <class>class</class>
            <destination-class>destination-class</destination-class>
            <source-class>source-class</source-class>
            <forwarding-class>forwarding-class</forwarding-class>
            <cos-next-hop-map>cos-next-hop-map</cos-next-hop-map>
            <default-action>default-action-choice</default-action>
            <accept/>
            <reject/>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description List of routes to match.

Contents <accept>—Accept a route.

<address>—IP address or hostname.

<as-path-expand>—Prepend AS numbers prior to adding local-as (BGP only).

<as-path-prepend>—Prepend AS numbers to an AS path (BGP only).

<class>—Set class-of-service parameters.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community properties associated with a route.

<cos-next-hop-map>—Set CoS-based next-hop map in forwarding table.

<damping>—Define BGP route flap damping parameters.

<default-action>—Set default policy action.

- accept—Accept a route.
- reject—Reject a route.

<destination-class>—Set destination class in forwarding table.

<exact>—Exactly match the prefix length.

<external>—External route.

<forwarding-class>—Set source or destination class in forwarding table.

<install-nexthop>—Choose the next hop to be used for forwarding.

<load-balance>—Type of load balancing in forwarding table.

<local-preference>—Local preference associated with a route.

<longer>—Mask is greater than the prefix length.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<next>—Skip to next policy or term.

- policy—Skip to next policy filter.
- term—Skip to next term in a policy filter.

<next-hop>—Set the address of the next-hop router.

<origin>—BGP path origin.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<orlonger>—Mask is greater than or equal to the prefix length.

<preference>—Preference value.

<preference2>—Preference value 2.

<prefix-length-range>—Mask falls between two prefix lengths.

<reject>—Reject a route.

<source-class>—Set source class in forwarding table.

<tag>—Tag string.

<tag2>—Tag string 2.

<through>—Route falls between two prefixes.

<trace>—Log matches to a trace file.

<upto>—Mask falls between two prefix lengths.

<router-advertisement> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <router-advertisement>
      <traceoptions>...</traceoptions>
      <interface>...</interface>
    </router-advertisement>
  </protocols>
</configuration>
```

Description IPv6 router advertisement options.

Contents <interface>—Interfaces on which to configure router advertisement.

<traceoptions>—Trace options for router advertisement.

<router-discovery> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <router-discovery>
      <disable/>
      <traceoptions>...</traceoptions>
      <interface>...</interface>
      <address>...</address>
    </router-discovery>
  </protocols>
</configuration>
```

Description ICMP router discovery options.

Contents <address>—IP addresses to include in advertisements.

<disable>—Disable router discovery.

<interface>—Interfaces on which to configure router discovery.

<traceoptions>—Trace options for router discovery.

<router-discovery> (configuration/routing-instances/instance/protocols)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <router-discovery>
          <disable/>
          <traceoptions>...</traceoptions>
          <interface>...</interface>
          <address>...</address>
        </router-discovery>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description ICMP router discovery options.

Contents <address>—IP addresses to include in advertisements.

<disable>—Disable router discovery.

<interface>—Interfaces on which to configure router discovery.

<traceoptions>—Trace options for router discovery.

<routing-engine> (configuration/chassis/redundancy)

Usage

```
<configuration>
  <chassis>
    <redundancy>
      <routing-engine>
        <name>name</name>     <!-- identifier -->
        <master/>
        <backup/>
        <disabled/>
      </routing-engine>
    </redundancy>
  </chassis>
</configuration>
```

Description Redundancy options for Routing Engines.

Contents <backup>—Backup Routing Engine.

<disabled>—Routing Engine disabled.

<master>—Master Routing Engine.

<name>—Routing Engine slot number.

<routing-engine-profile> (configuration/accounting-options)

Usage

```
<configuration>
  <accounting-options>
    <routing-engine-profile>
      <name>name</name>     <!-- identifier -->
      <file>file</file>
      <interval>minutes</interval>
      <fields>...</fields>     <!-- mandatory -->
    </routing-engine-profile>
  </accounting-options>
</configuration>
```

Description Routing Engine profile for accounting data.

Contents <fields>—Information to log to file.

<file>—Name of file for accounting data.

<interval>—Polling interval.

<name>—Name of profile.

<routing-instance> (configuration / forwarding-options / helpers / bootp / interface / server)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <bootp>
        <interface>
          <server>
            <routing-instance>
              <name>name</name>     <!-- identifier -->
            </routing-instance>
          </server>
        </interface>
      </bootp>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Routing instance of server to which to forward.

Contents <name>—Routing instance of server to which to forward.

<routing-instance> (configuration / forwarding-options / helpers / bootp / server)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <bootp>
        <server>
          <routing-instance>
            <name>name</name>     <!-- identifier -->
          </routing-instance>
        </server>
      </bootp>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Routing instance of server to which to forward.

Contents <name>—Routing instance of server to which to forward.

<routing-instance> (configuration / interfaces / interface / unit / tunnel)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <tunnel>
          <routing-instance>
            <destination>destination</destination>
          </routing-instance>
        </tunnel>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Routing instance to which tunnel ends belong.

Contents <destination>—Routing instance of tunnel destination.

<routing-instance> (configuration / services / ggsn / apn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <routing-instance>
          <name>name</name>
        </routing-instance>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description Routing instance for APN.

Contents <name>—Routing instance name.

<routing-instance> (configuration / services / ggsn / outband-dhcp-server)

Usage

```
<configuration>
  <services>
    <ggsn>
      <outband-dhcp-server>
        <routing-instance>
          <name>name</name>
          <address-range>address-range</address-range>     <!-- mandatory -->
        </routing-instance>
      </outband-dhcp-server>
    </ggsn>
  </services>
</configuration>
```

Description Routing instance for server.

Contents <address-range>—Address range used in routing instance.

<name>—Routing instance name.

<routing-instance> (configuration / services / ggsn / outband-radius-server)

Usage

```
<configuration>
  <services>
    <ggsn>
      <outband-radius-server>
        <routing-instance>
          <name>name</name>
          <address-range>address-range</address-range>     <!-- mandatory -->
        </routing-instance>
      </outband-radius-server>
    </ggsn>
  </services>
</configuration>
```

Description Routing instance for server.

Contents <address-range>—Address range used in routing instance.

<name>—Routing instance name.

<routing-instances> (configuration)

Usage

```
<configuration>
  <routing-instances>
    <instance>...</instance>
  </routing-instances>
</configuration>
```

Description Routing instance configuration.

Contents <instance>—No documentation is available yet.

<routing-options> (configuration)

Usage

```
<configuration>
  <routing-options>
    <traceoptions>...</traceoptions>
    <options>...</options>
    <graceful-restart>...</graceful-restart>
    <interface-routes>...</interface-routes>
    <rib>...</rib>
    <static>...</static>
    <martians>...</martians>
    <aggregate>...</aggregate>
    <generate>...</generate>
    <maximum-routes>...</maximum-routes>
    <rib-groups>...</rib-groups>
    <route-record/>
    <router-id>router-id</router-id>
    <route-distinguisher-id>route-distinguisher-id</route-distinguisher-id>
    <autonomous-system>...</autonomous-system>
    <confederation>...</confederation>
    <forwarding-table>...</forwarding-table>
    <resolution>...</resolution>
    <multicast>...</multicast>
    <instance-import>...</instance-import>
    <instance-export>...</instance-export>
    <auto-export>...</auto-export>
    <fate-sharing>...</fate-sharing>
  </routing-options>
</configuration>
```

Description Protocol-independent routing option configuration.

Contents <aggregate>—Coalesced routes.

<auto-export>—Export routes between routing instances.

<autonomous-system>—Autonomous system number.

<confederation>—Confederation autonomous system number.

<fate-sharing>—Fate-sharing links or nodes database.

<forwarding-table>—Forwarding table management options.

<generate>—Route of last resort.

<graceful-restart>—Graceful or hitless routing restart options.

<instance-export>—Export policy for instance RIBs.

<instance-import>—Import policy for instance RIBs.

<interface-routes>—Define routing table groups for interface routes.

<martians>—Invalid routes.

<maximum-routes>—Maximum number of routes.

<multicast>—Global multicast options.

<options>—Miscellaneous options.

<resolution>—Route next-hop resolution options.

<rib>—Routing table options.

<rib-groups>—Group of routing tables.

<route-distinguisher-id>—Identifier used in route distinguishers for routing instances.

<route-record>—Enable route recording.

<router-id>—Router identifier.

<static>—Static routes.

<traceoptions>—Global routing protocol trace options.

<routing-options> (configuration/routing-instances/instance)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <traceoptions>...</traceoptions>
        <options>...</options>
        <graceful-restart>...</graceful-restart>
        <interface-routes>...</interface-routes>
        <rib>...</rib>
        <static>...</static>
        <martians>...</martians>
        <aggregate>...</aggregate>
        <generate>...</generate>
        <maximum-routes>...</maximum-routes>
        <rib-groups>...</rib-groups>
        <route-record/>
        <router-id>router-id</router-id>
        <route-distinguisher-id>route-distinguisher-id</route-distinguisher-id>
        <autonomous-system>...</autonomous-system>
        <confederation>...</confederation>
        <forwarding-table>...</forwarding-table>
        <resolution>...</resolution>
        <multicast>...</multicast>
        <instance-import>...</instance-import>
        <instance-export>...</instance-export>
        <auto-export>...</auto-export>
        <fate-sharing>...</fate-sharing>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Protocol-independent routing option configuration.

Contents

<aggregate>—Coalesced routes.

<auto-export>—Export routes between routing instances.

<autonomous-system>—Autonomous system number.

<confederation>—Confederation autonomous system number.

<fate-sharing>—Fate-sharing links or nodes database.

<forwarding-table>—Forwarding table management options.

<generate>—Route of last resort.

<graceful-restart>—Graceful or hitless routing restart options.

<instance-export>—Export policy for instance RIBs.

<instance-import>—Import policy for instance RIBs.

<interface-routes>—Define routing table groups for interface routes.

<martians>—Invalid routes.

<maximum-routes>—Maximum number of routes.

<multicast>—Global multicast options.

<options>—Miscellaneous options.

<resolution>—Route next-hop resolution options.

<rib>—Routing table options.

<rib-groups>—Group of routing tables.

<route-distinguisher-id>—Identifier used in route distinguishers for routing instances.

<route-record>—Enable route recording.

<router-id>—Router identifier.

<static>—Static routes.

<traceoptions>—Global routing protocol trace options.

<rp> (configuration/protocols/pim)

Usage

```
<configuration>
  <protocols>
    <pim>
      <rp>
        <bootstrap-priority>bootstrap-priority</bootstrap-priority>
        <bootstrap-import>...</bootstrap-import>
        <bootstrap-export>...</bootstrap-export>
        <local>...</local>
        <auto-rp>...</auto-rp>
        <static>...</static>
      </rp>
    </pim>
  </protocols>
</configuration>
```

Description Router's rendezvous point properties.

Contents <auto-rp>—Set auto-RP mode (IPv4 only).

<bootstrap-export>—Bootstrap export policy.

<bootstrap-import>—Bootstrap import policy.

<bootstrap-priority>—Eligibility to be the bootstrap router.

<local>—Router's local RP properties.

<static>—Configure static PIM RPs.

<rp> (configuration/routing-instances/instance/protocols/pim)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <rp>
            <bootstrap-priority>bootstrap-priority</bootstrap-priority>
            <bootstrap-import>...</bootstrap-import>
            <bootstrap-export>...</bootstrap-export>
            <local>...</local>
            <auto-rp>...</auto-rp>
            <static>...</static>
          </rp>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Router's rendezvous point properties.

Contents <auto-rp>—Set auto-RP mode (IPv4 only).

<bootstrap-export>—Bootstrap export policy.

<bootstrap-import>—Bootstrap import policy.

<bootstrap-priority>—Eligibility to be the bootstrap router.

<local>—Router's local RP properties.

<static>—Configure static PIM RPs.

<rpf-check> (configuration / interfaces / interface / unit / family / inet)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <rpf-check>
              <fail-filter>fail-filter</fail-filter>
              <mode>...</mode>
            </rpf-check>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Enable reverse-path-forwarding checks on this interface.

Contents <fail-filter>—Name of filter applied to packets failing RPF check.

<mode>—Specify the mode for reverse path forwarding.

<rpf-check> (configuration / interfaces / interface / unit / family / inet6)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet6>
            <rpf-check>
              <fail-filter>fail-filter</fail-filter>
              <mode>...</mode>
            </rpf-check>
          </inet6>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Enable reverse-path-forwarding checks on this interface.

Contents <fail-filter>—Name of filter applied to packets failing RPF check.

<mode>—Specify the mode for reverse path forwarding.

<rsvp> (configuration / protocols)

Usage

```
<configuration>
  <protocols>
    <rsvp>
      <disable/>
      <graceful-restart>...</graceful-restart>
      <traceoptions>...</traceoptions>
      <refresh-time>refresh-time</refresh-time>
      <keep-multiplier>keep-multiplier</keep-multiplier>
      <preemption>preemption-choice</preemption>
      <interface>...</interface>
    </rsvp>
  </protocols>
</configuration>
```

Description RSVP options.

Contents <disable>—Disable RSVP.

<graceful-restart>—Configure graceful restart attributes.

<interface>—RSVP interface options.

<keep-multiplier>—Keep multiplier.

<preemption>—Set RSVP session preemption type.

- aggressive—Run RSVP session preemption whenever necessary.
- disabled—No RSVP session preemption.
- normal—Run RSVP session preemption to accommodate new sessions.

<refresh-time>—Refresh time.

<traceoptions>—Trace options for RSVP.

<rtvbr> (configuration/interfaces/interface/atm-options/vpi/shaping)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <atm-options>
        <vpi>
          <shaping>
            <rtvbr>
              <peak>peak</peak>     <!-- mandatory -->
              <sustained>sustained</sustained>     <!-- mandatory -->
              <burst>burst</burst>     <!-- mandatory -->
            </rtvbr>
          </shaping>
        </vpi>
      </atm-options>
    </interface>
  </interfaces>
</configuration>
```

Description ATM2 Real-time variable bandwidth utilization.

Contents <burst>—Burst size.

<peak>—Peak rate.

<sustained>—Sustained rate.

<rtvbr> (configuration/interfaces/interface/unit/family/inet/address/multipoint-destination/shaping)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <address>
              <multipoint-destination>
                <shaping>
                  <rtvbr>
                    <peak>peak</peak>     <!-- mandatory -->
                    <sustained>sustained</sustained>     <!-- mandatory -->
                    <burst>burst</burst>     <!-- mandatory -->
                  </rtvbr>
                </shaping>
              </multipoint-destination>
            </address>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description ATM2 Real-time variable bandwidth utilization.

Contents <burst>—Burst size.

<peak>—Peak rate.

<sustained>—Sustained rate.

<rtvbr> (configuration/interfaces/interface/unit/shaping)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <shaping>
          <rtvbr>
            <peak>peak</peak>     <!-- mandatory -->
            <sustained>sustained</sustained>     <!-- mandatory -->
            <burst>burst</burst>     <!-- mandatory -->
          </rtvbr>
        </shaping>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description ATM2 Real-time variable bandwidth utilization.

Contents <burst>—Burst size.

<peak>—Peak rate.

<sustained>—Sustained rate.

<sampling> (configuration/forwarding-options)

Usage

```
<configuration>
  <forwarding-options>
    <sampling>
      <disable/>
      <traceoptions>...</traceoptions>
      <input>...</input>
      <output>...</output>
    </sampling>
  </forwarding-options>
</configuration>
```

Description Statistical traffic sampling options.

Contents <disable>—Disable sampling.

<input>—Traffic sampling data acquisition.

<output>—Traffic sampling data disposition.

<traceoptions>—Traffic sampling trace options.

<sap> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <sap>
      <disable/>
      <listen>...</listen>
    </sap>
  </protocols>
</configuration>
```

Description Session Advertisement Protocol options.

Contents <disable>—Disable Session Advertisement Protocol.

<listen>—Address for SAP and SDP to listen on.

<scheduler-map> (configuration / class-of-service / fabric)

Usage

```
<configuration>
  <class-of-service>
    <fabric>
      <scheduler-map>
        <priority>...</priority>
      </scheduler-map>
    </fabric>
  </class-of-service>
</configuration>
```

Description Mapping of fabric traffic to packet schedulers.

Contents <priority>—Fabric traffic priority.

<scheduler-maps> (configuration / class-of-service)

Usage

```
<configuration>
  <class-of-service>
    <scheduler-maps>
      <name>name</name>     <!-- identifier -->
      <forwarding-class>...</forwarding-class>
    </scheduler-maps>
  </class-of-service>
</configuration>
```

Description Mapping of forwarding classes to packet schedulers.

Contents <forwarding-class>—Forwarding class name to map to scheduler.

<name>—Scheduler map name.

<schedulers> (configuration / class-of-service)

Usage

```
<configuration>
  <class-of-service>
    <schedulers>
      <name>name</name>     <!-- identifier -->
      <transmit-rate>...</transmit-rate>
      <buffer-size>...</buffer-size>
      <priority>priority-choice</priority>
      <drop-profile-map>...</drop-profile-map>
    </schedulers>
  </class-of-service>
</configuration>
```

Description Packet schedulers.

Contents <buffer-size>—Queue transmission buffer size.

<drop-profile-map>—Assign drop profile to a loss priority and protocol.

<name>—Scheduler name.

<priority>—Scheduling priority.

- high—Scheduling priority high.
- low—Scheduling priority low.
- strict-high—Scheduling priority strictly high.

<transmit-rate>—Transmit rate.

<scope> (configuration/routing-instances/instance/routing-options/multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <multicast>
          <scope>
            <name>name</name>     <!-- identifier -->
            <prefix>prefix</prefix>
            <interface>...</interface>
          </scope>
        </multicast>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Multicast address scope.

Contents <interface>—Interface on which to configure scoping.

<name>—Name to identify multicast address scope.

<prefix>—Administratively scoped address.

<scope> (configuration/routing-options/multicast)

Usage

```
<configuration>
  <routing-options>
    <multicast>
      <scope>
        <name>name</name>     <!-- identifier -->
        <prefix>prefix</prefix>
        <interface>...</interface>
      </scope>
    </multicast>
  </routing-options>
</configuration>
```

Description Multicast address scope.

Contents <interface>—Interface on which to configure scoping.

<name>—Name to identify multicast address scope.

<prefix>—Administratively scoped address.

<secondary> (configuration/protocols/mpls/label-switched-path)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <secondary>
          <name>name</name>     <!-- identifier -->
          <bandwidth>bandwidth</bandwidth>
          <class-of-service>class-of-service</class-of-service>
          <no-decrement-ttl/>
          <hop-limit>hop-limit</hop-limit>
          <no-cspf/>
          <optimize-timer>seconds</optimize-timer>
          <preference>preference</preference>
          <setup-priority>setup-priority</setup-priority>
          <reservation-priority>reservation-priority</reservation-priority>
          <record/>
          <standby/>
          <admin-group>...</admin-group>
          <adaptive/>
        </secondary>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Backup path.

Contents <adaptive>—Have the LSP smoothly cut over to new routes.

<admin-group>—Administrative group policy.

<bandwidth>—Bandwidth to reserve (bps).

<class-of-service>—Class-of-service value.

<hop-limit>—Maximum allowed router hops.

<name>—Name of path.

<no-cspf>—Disable automatic path computation.

<no-decrement-ttl>—Do not decrement the TTL within an LSP.

<optimize-timer>—Periodical path reoptimizations.

<preference>—Preference value.

<record>—Record transit routers.

<standby>—Keep backup paths in continuous standby.

<security> (configuration)

Usage

```
<configuration>
  <security>
    <traceoptions>...</traceoptions>
    <ipsec>...</ipsec>
    <ike>...</ike>
    <certificates>...</certificates>
  </security>
</configuration>
```

Description Security configuration.

Contents <certificates>—X.509 certificate configuration.

<ike>—IKE configuration.

<ipsec>—IPSec configuration.

<traceoptions>—Trace options for security.

<security-association> (configuration/security/ipsec)

Usage

```
<configuration>
  <security>
    <ipsec>
      <security-association>
        <name>name</name>     <!-- identifier -->
        <mode>mode-choice</mode>
        <manual>...</manual>
        <dynamic>...</dynamic>
      </security-association>
    </ipsec>
  </security>
</configuration>
```

Description Define an IPSec security association.

Contents <dynamic>—Define a dynamic IPSec security association.

<manual>—Define a manual IPSec security association.

<mode>—Define the mode for the SA.

- transport—Transport mode.
- tunnel—Tunnel mode.

<name>—Name of security association.

<selectable> (configuration/services/ggsn/logical-apn/apn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <logical-apn>
        <apn>
          <selectable>
            <name>name</name>     <!-- identifier -->
          </selectable>
        </apn>
      </logical-apn>
    </ggsn>
  </services>
</configuration>
```

Description APNs available to username-based selection.

Contents <name>—Name of APN.

<send> (configuration/protocols/rip)

Usage

```
<configuration>
  <protocols>
    <rip>
      <send>
        <broadcast/>
        <multicast/>
        <none/>
        <version-1/>
      </send>
    </rip>
  </protocols>
</configuration>
```

Description Configure RIP send options.

Contents <broadcast>—Broadcast RIPv2 packets (RIPv1 compatible).

<multicast>—Multicast RIPv2 packets.

<none>—Do not send RIP updates.

<version-1>—Broadcast RIPv1 packets.

<send> (configuration/protocols/rip/group/neighbor)

Usage

```
<configuration>
  <protocols>
    <rip>
      <group>
        <neighbor>
          <send>
            <broadcast/>
            <multicast/>
            <none/>
            <version-1/>
          </send>
        </neighbor>
      </group>
    </rip>
  </protocols>
</configuration>
```

Description Configure RIP send options.

Contents <broadcast>—Broadcast RIPv2 packets (RIPv1 compatible).

<multicast>—Multicast RIPv2 packets.

<none>—Do not send RIP updates.

<version-1>—Broadcast RIPv1 packets.

<send> (configuration/protocols/ripng)

Usage

```
<configuration>
  <protocols>
    <ripng>
      <send>
        <none/>
      </send>
    </ripng>
  </protocols>
</configuration>
```

Description Configure RIPng send options.

Contents <none>—Do not send RIPng updates.

<send> (configuration / protocols / ripng / group / neighbor)

Usage

```
<configuration>
  <protocols>
    <ripng>
      <group>
        <neighbor>
          <send>
            <none/>
          </send>
        </neighbor>
      </group>
    </ripng>
  </protocols>
</configuration>
```

Description Configure RIPng send options.

Contents <none>—Do not send RIPng updates.

<send> (configuration / routing-instances / instance / protocols / rip)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <send>
            <broadcast/>
            <multicast/>
            <none/>
            <version-1/>
          </send>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure RIP send options.

Contents <broadcast>—Broadcast RIPv2 packets (RIPv1 compatible).

<multicast>—Multicast RIPv2 packets.

<none>—Do not send RIP updates.

<version-1>—Broadcast RIPv1 packets.

<send> (configuration/routing-instances/instance/protocols/rip/group/neighbor)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <group>
            <neighbor>
              <send>
                <broadcast/>
                <multicast/>
                <none/>
                <version-1/>
              </send>
            </neighbor>
          </group>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure RIP send options.

Contents <broadcast>—Broadcast RIPv2 packets (RIPv1 compatible).

<multicast>—Multicast RIPv2 packets.

<none>—Do not send RIP updates.

<version-1>—Broadcast RIPv1 packets.

<server> (configuration/forwarding-options/helpers/bootp)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <bootp>
        <server>
          <name>name</name>     <!-- identifier -->
          <routing-instance>...</routing-instance>
        </server>
      </bootp>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Server information.

Contents <name>—Name or address of servers to which to forward.

<routing-instance>—Routing instance of server to which to forward.

<server> (configuration / forwarding-options / helpers / bootp / interface)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <bootp>
        <interface>
          <server>
            <name>name</name>     <!-- identifier -->
            <routing-instance>...</routing-instance>
          </server>
        </interface>
      </bootp>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Server information.

Contents <name>—Name or address of servers to which to forward.

<routing-instance>—Routing instance of server to which to forward.

<server> (configuration / forwarding-options / helpers / domain)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <domain>
        <server>
          <address>address</address>
          <routing-instance>routing-instance</routing-instance>
        </server>
      </domain>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Server information.

Contents <address>—Name or address of server to which to forward.

<routing-instance>—Routing instance of server to which to forward.

<server> (configuration / forwarding-options / helpers / domain / interface)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <domain>
        <interface>
          <server>
            <address>address</address>
            <routing-instance>routing-instance</routing-instance>
          </server>
        </interface>
      </domain>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Server information.

Contents <address>—Name or address of server to which to forward.

<routing-instance>—Routing instance of server to which to forward.

<server> (configuration / forwarding-options / helpers / port)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <port>
        <server>
          <address>address</address>
          <routing-instance>routing-instance</routing-instance>
        </server>
      </port>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Server information.

Contents <address>—Name or address of server to which to forward.

<routing-instance>—Routing instance of server to which to forward.

<server> (configuration / forwarding-options / helpers / port / interface)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <port>
        <interface>
          <server>
            <address>address</address>
            <routing-instance>routing-instance</routing-instance>
          </server>
        </interface>
      </port>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Server information.

Contents <address>—Name or address of server to which to forward.

<routing-instance>—Routing instance of server to which to forward.

<server> (configuration / forwarding-options / helpers / tftp)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <tftp>
        <server>
          <address>address</address>
          <routing-instance>routing-instance</routing-instance>
        </server>
      </tftp>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Server information.

Contents <address>—Name or address of server to which to forward.

<routing-instance>—Routing instance of server to which to forward.

<server> (configuration / forwarding-options / helpers / tftp / interface)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <tftp>
        <interface>
          <server>
            <address>address</address>
            <routing-instance>routing-instance</routing-instance>
          </server>
        </interface>
      </tftp>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Server information.

Contents <address>—Name or address of server to which to forward.

<routing-instance>—Routing instance of server to which to forward.

<services> (configuration)

Usage

```
<configuration>
  <services>
    <logging>...</logging>
    <ggsn>...</ggsn>
  </services>
</configuration>
```

Description Service PIC applications settings.

Contents <ggsn>—GGSN settings.

<logging>—Bulk logging configuration.

<services> (configuration/system)

Usage

```
<configuration>
  <system>
    <services>
      <finger>...</finger>
      <ftp>...</ftp>
      <ssh>...</ssh>
      <telnet>...</telnet>
      <xnm-clear-text>...</xnm-clear-text>
      <xnm-ssl>...</xnm-ssl>
    </services>
  </system>
</configuration>
```

Description System services.

Contents <finger>—Allow finger requests from remote systems.

<ftp>—Allow FTP file transfers.

<ssh>—Allow ssh access.

<telnet>—Allow telnet login.

<xnm-clear-text>—Allow clear text-based JUNOScript connections.

<xnm-ssl>—Allow SSL-based JUNOScript connections.

<session> (configuration/protocols/ldp)

Usage

```
<configuration>
  <protocols>
    <ldp>
      <session>
        <name>name</name>     <!-- identifier -->
        <authentication-key>authentication-key</authentication-key>
      </session>
    </ldp>
  </protocols>
</configuration>
```

Description Configure session parameters.

Contents <authentication-key>—MD5 authentication key.

<name>—Session destination address.

<session> (configuration/routing-instances/instance/protocols/ldp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <session>
            <name>name</name>     <!-- identifier -->
            <authentication-key>authentication-key</authentication-key>
          </session>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure session parameters.

Contents <authentication-key>—MD5 authentication key.

<name>—Session destination address.

<sfm> (configuration/chassis)

Usage

```
<configuration>
  <chassis>
    <sfm>
      <name>name</name>     <!-- identifier -->
    </sfm>
  </chassis>
</configuration>
```

Description Switching and Forwarding Module (SFM) card parameters.

Contents <name>—SFM slot number.

<sfm> (configuration/chassis/redundancy)

Usage

```
<configuration>
  <chassis>
    <redundancy>
      <sfm>
        <name>name</name>     <!-- identifier -->
        <always/>
        <preferred/>
      </sfm>
    </redundancy>
  </chassis>
</configuration>
```

Description Redundancy options for Switching and Forwarding Modules (SFMs).

Contents <always>—Sole device.

<name>—SFM slot number.

<preferred>—Preferred device.

<sgsn-exception> (configuration/services/ggsn/gtp)

Usage

```
<configuration>
  <services>
    <ggsn>
      <gtp>
        <sgsn-exception>
          <name>name</name>     <!-- identifier -->
          <no-path-management/>
        </sgsn-exception>
      </gtp>
    </ggsn>
  </services>
</configuration>
```

Description SGSNs requiring exceptional handling.

Contents <name>—SGSN address.

<no-path-management>—SGSN does not support GTP path management.

<shaping> (configuration / interfaces / interface / atm-options / vpi)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <atm-options>
        <vpi>
          <shaping>
            <cbr>cbr</cbr>
            <vbr>...</vbr>
            <rtvbr>...</rtvbr>
            <queue-length>queue-length</queue-length>
          </shaping>
        </vpi>
      </atm-options>
    </interface>
  </interfaces>
</configuration>
```

Description Virtual path traffic-shaping options.

Contents <cbr>—Continuous bandwidth utilization.

<queue-length>—Queue length.

<rtvbr>—ATM2 Real-time variable bandwidth utilization.

<vbr>—Variable bandwidth utilization.

<shaping> (configuration / interfaces / interface / unit)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <shaping>
          <cbr>cbr</cbr>
          <vbr>...</vbr>
          <rtvbr>...</rtvbr>
          <queue-length>queue-length</queue-length>
        </shaping>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Virtual circuit traffic-shaping options.

Contents <cbr>—Continuous bandwidth utilization.

<queue-length>—Queue length.

<rtvbr>—ATM2 Real-time variable bandwidth utilization.

<vbr>—Variable bandwidth utilization.

<shaping> (configuration / interfaces / interface / unit / family / inet / address / multipoint-destination)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <address>
              <multipoint-destination>
                <shaping>
                  <cbr>cbr</cbr>
                  <vbr>...</vbr>
                  <rtvbr>...</rtvbr>
                  <queue-length>queue-length</queue-length>
                </shaping>
              </multipoint-destination>
            </address>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Virtual circuit traffic shaping options.

Contents <cbr>—Continuous bandwidth utilization.

<queue-length>—Queue length.

<rtvbr>—ATM2 Real-time variable bandwidth utilization.

<vbr>—Variable bandwidth utilization.

<site> (configuration / routing-instances / instance / protocols / l2vpn)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <l2vpn>
          <site>
            <name>name</name>     <!-- identifier -->
            <site-identifier>site-identifier</site-identifier>     <!-- mandatory -->
            <interface>...</interface>
          </site>
        </l2vpn>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Layer 2 VPN sites connected to this provider equipment.

Contents <interface>—Interface connecting this site to the VPN.

<name>—Name of Layer 2 VPN site.

<site-identifier>—Layer 2 VPN site identifier, unique within the VPN.

<snmp> (configuration)

Usage

```
<configuration>
  <snmp>
    <name>name</name>
    <description>description</description>
    <location>location</location>
    <contact>contact</contact>
    <interface>...</interface>
    <engine-id>...</engine-id>
    <access>...</access>
    <view>...</view>
    <community>...</community>
    <trap-options>...</trap-options>
    <trap-group>...</trap-group>
    <traceoptions>...</traceoptions>
    <rmon>...</rmon>
  </snmp>
</configuration>
```

Description Simple Network Management Protocol.

Contents <access>—SNMPv3 access information.

<community>—Configure a community string.

<contact>—Contact information for administrator.

<description>—System description.

<engine-id>—SNMPv3 engine ID.

<interface>—Restrict SNMP requests to interfaces.

<location>—Physical location of system.

<name>—System name override.

<rmon>—Remote Monitoring (RMON) configuration.

<traceoptions>—Trace options for SNMP.

<trap-group>—Configure traps and notifications.

<trap-options>—SNMP trap options.

<view>—Define MIB views.

<sonet> (configuration/chassis/aggregated-devices)

Usage

```
<configuration>
  <chassis>
    <aggregated-devices>
      <sonet>
        <device-count>device-count</device-count>
      </sonet>
    </aggregated-devices>
  </chassis>
</configuration>
```

Description Aggregated device options for POS.

Contents <device-count>—Number of aggregated POS devices.

<sonet> (configuration/chassis/alarm)

Usage

```
<configuration>
  <chassis>
    <alarm>
      <sonet>
        <lol>lol-choice</lol>
        <pll>pll-choice</pll>
        <lof>lof-choice</lof>
        <los>los-choice</los>
        <ais-l>ais-l-choice</ais-l>
        <ais-p>ais-p-choice</ais-p>
        <lop-p>lop-p-choice</lop-p>
        <ber-sd>ber-sd-choice</ber-sd>
        <ber-sf>ber-sf-choice</ber-sf>
        <rfi-l>rfi-l-choice</rfi-l>
        <rfi-p>rfi-p-choice</rfi-p>
        <uneq-p>uneq-p-choice</uneq-p>
        <locd>locd-choice</locd>
        <plm-p>plm-p-choice</plm-p>
      </sonet>
    </alarm>
  </chassis>
</configuration>
```

Description SONET alarms.

Contents <ais-l>—Line alarm indication signal, AIS-L failure.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<ais-p>—Path alarm indication signal, AIS-P failure.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<ber-sd>—Signal Degrade (SD), bit error rate > 1E-6.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<ber-sf>—Signal Fail (SF), bit error rate > 1E-3.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<locd>—Loss of cell delineation (ATM only).

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<lof>—Loss of framing, LOF failure.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<lol>—Loss of light.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<lop-p>—Loss of pointer, LOP-P failure.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<los>—Loss of signal, LOS failure.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<pll>—Phase locked loop out of lock.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<plm-p>—STS payload label (C2) mismatch, PLM-P failure.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<rfi-l>—Line remote failure indication, RFI-L, line FERF.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<rfi-p>—Path remote failure indication, RFI-P, STS path yellow.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<uneq-p>—STS Path (C2) unequipped, UNEQ-P failure.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<sonet-options> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <sonet-options>
        <fcs>fcs-choice</fcs>
        <path-trace>path-trace</path-trace>
        <loopback>loopback-choice</loopback>
        <aps>...</aps>
        <payload-scrambler>...</payload-scrambler>
        <no-payload-scrambler/>
        <z0-increment/>
        <bytes>...</bytes>
        <rfc-2615/>
        <aggregate>aggregate</aggregate>
      </sonet-options>
    </interface>
  </interfaces>
</configuration>
```

Description SONET interface-specific options.

Contents <aggregate>—Join a SONET aggregate.

<aps>—Automatic Protection Switching.

<bytes>—Set SONET header bytes.

<fcs>—Frame checksum.

- 16—16-bit mode.
- 32—32-bit mode.

<loopback>—Loopback mode.

- local—Local loopback.
- remote—Remote loopback.

<no-payload-scrambler>—Do not enable payload scrambling.

<path-trace>—Path trace string.

<payload-scrambler>—Enable payload scrambling.

<rfc-2615>—RFC 2615 compliance.

<z0-increment>—Increment Z0 in SDH mode.

<source> (configuration / protocols / igmp / interface / static / group)

Usage

```
<configuration>
  <protocols>
    <igmp>
      <interface>
        <static>
          <group>
            <source>
              <name>name</name>     <!-- identifier -->
            </source>
          </group>
        </static>
      </interface>
    </igmp>
  </protocols>
</configuration>
```

Description IP multicast source address.

Contents <name>—Source address of IP multicast data.

<source> (configuration / protocols / mld / interface / static / group)

Usage

```
<configuration>
  <protocols>
    <mld>
      <interface>
        <static>
          <group>
            <source>
              <name>name</name>     <!-- identifier -->
            </source>
          </group>
        </static>
      </interface>
    </mld>
  </protocols>
</configuration>
```

Description IP multicast source address.

Contents <name>—Source address of IP multicast data.

<source-address> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <source-address>
                <name>name</name>     <!-- identifier -->
                <except/>
              </source-address>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match IP source address.

Contents <except>—Match address not in this prefix.

<name>—Prefix to match.

<source-address> (configuration / firewall / family / inet6 / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <source-address>
                <name>name</name>     <!-- identifier -->
                <except/>
              </source-address>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Match IP source address.

Contents <except>—Match address not in this prefix.

<name>—Prefix to match.

<source-address> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <source-address>
            <name>name</name>     <!-- identifier -->
            <except/>
          </source-address>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match IP source address.

Contents <except>—Match address not in this prefix.

<name>—Prefix to match.

<source-address-filter> (configuration / interfaces / interface / aggregated-ether-options)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <aggregated-ether-options>
        <source-address-filter>
          <name>name</name>     <!-- identifier -->
        </source-address-filter>
      </aggregated-ether-options>
    </interface>
  </interfaces>
</configuration>
```

Description Source address filters.

Contents <name>—Define a source address filter.

<source-address-filter> (configuration / interfaces / interface / fastether-options)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <fastether-options>
        <source-address-filter>
          <name>name</name>     <!-- identifier -->
        </source-address-filter>
      </fastether-options>
    </interface>
  </interfaces>
</configuration>
```

Description Source address filters.

Contents <name>—Define a source address filter.

<source-address-filter> (configuration / interfaces / interface / gigether-options)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <gigether-options>
        <source-address-filter>
          <name>name</name>     <!-- identifier -->
        </source-address-filter>
      </gigether-options>
    </interface>
  </interfaces>
</configuration>
```

Description Source address filters.

Contents <name>—Define a source address filter.

<source-address-filter> (configuration/policy-options/policy-statement/from)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <address>address</address>     <!-- identifier -->
          <exact/>     <!-- identifier -->
          <longer/>     <!-- identifier -->
          <orlonger/>     <!-- identifier -->
          <upto>upto</upto>     <!-- identifier -->
          <through>through</through>     <!-- identifier -->
          <prefix-length-range>prefix-length-range</prefix-length-range>     <!-- identifier -->
          <metric>...</metric>
          <metric2>...</metric2>
          <metric3>...</metric3>
          <metric4>...</metric4>
          <tag>...</tag>
          <tag2>...</tag2>
          <preference>...</preference>
          <preference2>...</preference2>
          <color>...</color>
          <color2>...</color2>
          <local-preference>...</local-preference>
          <origin>origin-choice</origin>
          <community>...</community>
          <damping>damping</damping>
          <as-path-prepend>as-path-prepend</as-path-prepend>
          <as-path-expand>...</as-path-expand>
          <next-hop>...</next-hop>
          <install-nexthop>...</install-nexthop>
          <trace/>
          <next>next-choice</next>
          <external>...</external>
          <load-balance>...</load-balance>
          <class>class</class>
          <destination-class>destination-class</destination-class>
          <source-class>source-class</source-class>
          <forwarding-class>forwarding-class</forwarding-class>
          <cos-next-hop-map>cos-next-hop-map</cos-next-hop-map>
          <default-action>default-action-choice</default-action>
          <accept/>
          <reject/>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description List of source addresses to match.

Contents <accept>—Accept a route.

<address>—IP address or hostname.

<as-path-expand>—Prepend AS numbers prior to adding local-as (BGP only).

<as-path-prepend>—Prepend AS numbers to an AS path (BGP only).

<class>—Set class-of-service parameters.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community properties associated with a route.

<cos-next-hop-map>—Set CoS-based next-hop map in forwarding table.

<damping>—Define BGP route flap damping parameters.

<default-action>—Set default policy action.

- accept—Accept a route.
- reject—Reject a route.

<destination-class>—Set destination class in forwarding table.

<exact>—Exactly match the prefix length.

<external>—External route.

<forwarding-class>—Set source or destination class in forwarding table.

<install-nexthop>—Choose the next hop to be used for forwarding.

<load-balance>—Type of load balancing in forwarding table.

<local-preference>—Local preference associated with a route.

<longer>—Mask is greater than the prefix length.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<next>—Skip to next policy or term.

- policy—Skip to next policy filter.
- term—Skip to next term in a policy filter.

<next-hop>—Set the address of the next-hop router.

<origin>—BGP path origin.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<orlonger>—Mask is greater than or equal to the prefix length.

<preference>—Preference value.

<preference2>—Preference value 2.

<prefix-length-range>—Mask falls between two prefix lengths.

<reject>—Reject a route.

<source-class>—Set source class in forwarding table.

<tag>—Tag string.

<tag2>—Tag string 2.

<through>—Route falls between two prefixes.

<trace>—Log matches to a trace file.

<upto>—Mask falls between two prefix lengths.

<source-address-filter> (configuration/policy-options/policy-statement/term/from)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <address>address</address>     <!-- identifier -->
            <exact/>     <!-- identifier -->
            <longer/>     <!-- identifier -->
            <orlonger/>     <!-- identifier -->
            <upto>upto</upto>     <!-- identifier -->
            <through>through</through>     <!-- identifier -->
            <prefix-length-range>prefix-length-range</prefix-length-range> <!-- identifier -->
            <metric>...</metric>
            <metric2>...</metric2>
            <metric3>...</metric3>
            <metric4>...</metric4>
            <tag>...</tag>
            <tag2>...</tag2>
            <preference>...</preference>
            <preference2>...</preference2>
            <color>...</color>
            <color2>...</color2>
            <local-preference>...</local-preference>
            <origin>origin-choice</origin>
            <community>...</community>
            <damping>damping</damping>
            <as-path-prepend>as-path-prepend</as-path-prepend>
            <as-path-expand>...</as-path-expand>
            <next-hop>...</next-hop>
            <install-nexthop>...</install-nexthop>
            <trace/>
            <next>next-choice</next>
            <external>...</external>
            <load-balance>...</load-balance>
            <class>class</class>
            <destination-class>destination-class</destination-class>
            <source-class>source-class</source-class>
            <forwarding-class>forwarding-class</forwarding-class>
            <cos-next-hop-map>cos-next-hop-map</cos-next-hop-map>
            <default-action>default-action-choice</default-action>
            <accept/>
            <reject/>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description List of source addresses to match.

Contents <accept>—Accept a route.

<address>—IP address or hostname.

<as-path-expand>—Prepend AS numbers prior to adding local-as (BGP only).

<as-path-prepend>—Prepend AS numbers to an AS path (BGP only).

<class>—Set class-of-service parameters.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community properties associated with a route.

<cos-next-hop-map>—Set CoS-based next-hop map in forwarding table.

<damping>—Define BGP route flap damping parameters.

<default-action>—Set default policy action.

- accept—Accept a route.
- reject—Reject a route.

<destination-class>—Set destination class in forwarding table.

<exact>—Exactly match the prefix length.

<external>—External route.

<forwarding-class>—Set source or destination class in forwarding table.

<install-nexthop>—Choose the next hop to be used for forwarding.

<load-balance>—Type of load balancing in forwarding table.

<local-preference>—Local preference associated with a route.

<longer>—Mask is greater than the prefix length.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<next>—Skip to next policy or term.

- policy—Skip to next policy filter.
- term—Skip to next term in a policy filter.

<next-hop>—Set the address of the next-hop router.

<origin>—BGP path origin.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<orlonger>—Mask is greater than or equal to the prefix length.

<preference>—Preference value.

<preference2>—Preference value 2.

<prefix-length-range>—Mask falls between two prefix lengths.

<reject>—Reject a route.

<source-class>—Set source class in forwarding table.

<tag>—Tag string.

<tag2>—Tag string 2.

<through>—Route falls between two prefixes.

<trace>—Log matches to a trace file.

<upto>—Mask falls between two prefix lengths.

<source-class-usage> (configuration/interfaces/interface/unit/family/inet/accounting)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <accounting>
              <source-class-usage>
                <input/>
                <output/>
              </source-class-usage>
            </accounting>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description No documentation is available yet.

Contents <input>—Specify this interface for source-class-usage input.

<output>—Specify this interface for source-class-usage output.

<source-class-usage> (configuration/interfaces/interface/unit/family/inet6/accounting)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet6>
            <accounting>
              <source-class-usage>
                <input/>
                <output/>
              </source-class-usage>
            </accounting>
          </inet6>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description No documentation is available yet.

Contents <input>—Specify this interface for source-class-usage input.

<output>—Specify this interface for source-class-usage output.

<source-classes> (configuration/accounting-options/class-usage-profile)

Usage

```
<configuration>
  <accounting-options>
    <class-usage-profile>
      <source-classes>
        <name>name</name>     <!-- identifier -->
      </source-classes>
    </class-usage-profile>
  </accounting-options>
</configuration>
```

Description Name of source class.

Contents <name>—Class name.

<source-destination-prefix> (configuration / forwarding-options / sampling / output / cflowd / aggregation)

Usage

```
<configuration>
  <forwarding-options>
    <sampling>
      <output>
        <cflowd>
          <aggregation>
            <source-destination-prefix>
              <caida-compliant/>
            </source-destination-prefix>
          </aggregation>
        </cflowd>
      </output>
    </sampling>
  </forwarding-options>
</configuration>
```

Description Aggregate by source and destination prefix.

Contents <caida-compliant>—Compatible with Caida record format for prefix aggregation (v8).

<source-port> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <source-port>
                <name>name</name>     <!-- identifier -->
              </source-port>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match TCP/UDP source port.

Contents <name>—No documentation is available yet.

- afs—Andrew File System.
- bgp—BGP.
- biff—Biff/Comsat.
- bootpc—BOOTP client.
- bootps—BOOTP server.

- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—DHCP.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—HTTP.
- https—Secure HTTP.
- ident—Ident.
- imap—IMAP.
- kerberos-sec—Kerberos Sec.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos db propagation.
- krbupdate—Kerberos db update.
- kshell—Kerberos rsh.
- ldap—LDAP.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.
- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- name—Range of values.
- netbios-dgm—NETBIOS DGM.
- netbios-ns—NETBIOS NS.

- netbios-ssn—NETBIOS SSN.
- nfsd—NFS.
- nntp—NNTP.
- ntalk—New Talk.
- ntp—NTP.
- pop3—POP3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.
- radius—RADIUS authentication.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—SMTP.
- snmp—SNMP.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell (ssh).
- sunrpc—SUN RPC.
- syslog—System log.
- tacacs—TACACS (original, not TACACS +).
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—TFTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—XDMCP.

<source-port> (configuration/firewall/family/inet6/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <source-port>
                <name>name</name>     <!-- identifier -->
              </source-port>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Match TCP/UDP source port.

Contents <name>—No documentation is available yet.

- afs—Andrew File System.
- bgp—BGP.
- biff—Biff/Comsat.
- bootpc—BOOTP client.
- bootps—BOOTP server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—DHCP.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—HTTP.
- https—Secure HTTP.

- ident—Ident.
- imap—IMAP.
- kerberos-sec—Kerberos Sec.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos db propagation.
- krbupdate—Kerberos db update.
- kshell—Kerberos rsh.
- ldap—LDAP.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.
- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- name—Range of values.
- netbios-dgm—NETBIOS DGM.
- netbios-ns—NETBIOS NS.
- netbios-ssn—NETBIOS SSN.
- nfsd—NFS.
- nntp—NNTP.
- ntalk—New Talk.
- ntp—NTP.
- pop3—POP3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.
- radius—RADIUS authentication.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.

- smtp—SMTP.
- snmp—SNMP.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell (ssh).
- sunrpc—SUN RPC.
- syslog—System log.
- tacacs—TACACS (original, not TACACS +).
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—TFTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—XDMCP.

<source-port> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <source-port>
            <name>name</name>     <!-- identifier -->
          </source-port>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match TCP/UDP source port.

Contents <name>—No documentation is available yet.

- afs—Andrew File System.
- bgp—BGP.
- biff—Biff/Comsat.

- bootpc—BOOTP client.
- bootps—BOOTP server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—DHCP.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—HTTP.
- https—Secure HTTP.
- ident—Ident.
- imap—IMAP.
- kerberos-sec—Kerberos Sec.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos db propagation.
- krbupdate—Kerberos db update.
- kshell—Kerberos rsh.
- ldap—LDAP.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.
- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- name—Range of values.

- netbios-dgm—NETBIOS DGM.
- netbios-ns—NETBIOS NS.
- netbios-ssn—NETBIOS SSN.
- nfsd—NFS.
- nntp—NNTP.
- ntalk—New Talk.
- ntp—NTP.
- pop3—POP3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.
- radius—RADIUS authentication.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—SMTP.
- snmp—SNMP.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell (ssh).
- sunrpc—SUN RPC.
- syslog—System log.
- tacacs—TACACS (original, not TACACS +).
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—TFTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—XDMCP.

<source-port-except> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <source-port-except>
                <name>name</name>     <!-- identifier -->
              </source-port-except>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Do not match TCP/UDP source port.

Contents <name>—No documentation is available yet.

- afs—Andrew File System.
- bgp—BGP.
- biff—Biff/Comsat.
- bootpc—BOOTP client.
- bootps—BOOTP server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—DHCP.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—HTTP.
- https—Secure HTTP.

- ident—Ident.
- imap—IMAP.
- kerberos-sec—Kerberos Sec.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos db propagation.
- krbupdate—Kerberos db update.
- kshell—Kerberos rsh.
- ldap—LDAP.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.
- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- name—Range of values.
- netbios-dgm—NETBIOS DGM.
- netbios-ns—NETBIOS NS.
- netbios-ssn—NETBIOS SSN.
- nfsd—NFS.
- nntp—NNTP.
- ntalk—New Talk.
- ntp—NTP.
- pop3—POP3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.
- radius—RADIUS authentication.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.

- smtp—SMTP.
- snmp—SNMP.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell (ssh).
- sunrpc—SUN RPC.
- syslog—System log.
- tacacs—TACACS (original, not TACACS +).
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—TFTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—XDMCP.

<source-port-except> (configuration / firewall / family / inet6 / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <source-port-except>
                <name>name</name>     <!-- identifier -->
              </source-port-except>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Do not match TCP/UDP source port.

Contents <name>—No documentation is available yet.

- afs—Andrew File System.
- bgp—BGP.
- biff—Biff/Comsat.
- bootpc—BOOTP client.
- bootps—BOOTP server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—DHCP.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—HTTP.
- https—Secure HTTP.
- ident—Ident.
- imap—IMAP.
- kerberos-sec—Kerberos Sec.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos db propagation.
- krbupdate—Kerberos db update.
- kshell—Kerberos rsh.
- ldap—LDAP.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.

- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- name—Range of values.
- netbios-dgm—NETBIOS DGM.
- netbios-ns—NETBIOS NS.
- netbios-ssn—NETBIOS SSN.
- nfsd—NFS.
- nntp—NNTP.
- ntalk—New Talk.
- ntp—NTP.
- pop3—POP3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.
- radius—RADIUS authentication.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—SMTP.
- snmp—SNMP.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell (ssh).
- sunrpc—SUN RPC.
- syslog—System log.
- tacacs—TACACS (original, not TACACS +).
- talk—UNIX Talk.
- telnet—Telnet.

- tftp—TFTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—XDMCP.

<source-port-except> (configuration/firewall/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <source-port-except>
            <name>name</name>     <!-- identifier -->
          </source-port-except>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Do not match TCP/UDP source port.

Contents <name>—No documentation is available yet.

- afs—Andrew File System.
- bgp—BGP.
- biff—Biff/Comsat.
- bootpc—BOOTP client.
- bootps—BOOTP server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—DHCP.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.

- ftp-data—FTP data.
- http—HTTP.
- https—Secure HTTP.
- ident—Ident.
- imap—IMAP.
- kerberos-sec—Kerberos Sec.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos db propagation.
- krbupdate—Kerberos db update.
- kshell—Kerberos rsh.
- ldap—LDAP.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.
- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- name—Range of values.
- netbios-dgm—NETBIOS DGM.
- netbios-ns—NETBIOS NS.
- netbios-ssn—NETBIOS SSN.
- nfsd—NFS.
- nntp—NNTP.
- ntalk—New Talk.
- ntp—NTP.
- pop3—POP3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.

- radius—RADIUS authentication.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—SMTP.
- snmp—SNMP.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell (ssh).
- sunrpc—SUN RPC.
- syslog—System log.
- tacacs—TACACS (original, not TACACS +).
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—TFTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—XDMCP.

<source-prefix-list> (configuration / firewall / family / inet / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <source-prefix-list>
                <name>name</name>     <!-- identifier -->
                <except/>
              </source-prefix-list>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match IP source prefix list.

Contents <except>—Match addresses not in this prefix list.

<name>—Prefix list to match.

<source-prefix-list> (configuration / firewall / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <source-prefix-list>
            <name>name</name>     <!-- identifier -->
            <except/>
          </source-prefix-list>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match IP source prefix list.

Contents <except>—Match addresses not in this prefix list.

<name>—Prefix list to match.

<ssb> (configuration/chassis/redundancy)

Usage

```
<configuration>
  <chassis>
    <redundancy>
      <ssb>
        <name>name</name>     <!-- identifier -->
        <always/>
        <preferred/>
      </ssb>
    </redundancy>
  </chassis>
</configuration>
```

Description Redundancy options for System Switch Boards (SSBs).

Contents <always>—Sole device.

<name>—SSB slot number.

<preferred>—Preferred device.

<ssh> (configuration/system/services)

Usage

```
<configuration>
  <system>
    <services>
      <ssh>
        <root-login>root-login-choice</root-login>
        <protocol-version>...</protocol-version>
        <connection-limit>connection-limit</connection-limit>
        <rate-limit>rate-limit</rate-limit>
      </ssh>
    </services>
  </system>
</configuration>
```

Description Allow ssh access.

Contents <connection-limit>—Maximum number of allowed connections.

<protocol-version>—Specify ssh protocol versions supported.

<rate-limit>—Maximum number of connections per minute.

<root-login>—Configure root access via ssh.

- allow—Allow root access via ssh.
- deny—Do not allow root access via ssh.
- deny-password—Allow for non-password-based authentication methods only.

<ssh-dsa> (configuration/system/login/user/authentication)

Usage

```
<configuration>
  <system>
    <login>
      <user>
        <authentication>
          <ssh-dsa>
            <name>name</name>     <!-- identifier -->
          </ssh-dsa>
        </authentication>
      </user>
    </login>
  </system>
</configuration>
```

Description Secure shell (ssh) DSA public key string.

Contents <name>—Secure shell (ssh) DSA public key string.

<ssh-dsa> (configuration/system/root-authentication)

Usage

```
<configuration>
  <system>
    <root-authentication>
      <ssh-dsa>
        <name>name</name>     <!-- identifier -->
      </ssh-dsa>
    </root-authentication>
  </system>
</configuration>
```

Description Secure shell (ssh) DSA public key string.

Contents <name>—Secure shell (ssh) DSA public key string.

<ssh-rsa> (configuration/system/login/user/authentication)

Usage

```
<configuration>
  <system>
    <login>
      <user>
        <authentication>
          <ssh-rsa>
            <name>name</name>     <!-- identifier -->
          </ssh-rsa>
        </authentication>
      </user>
    </login>
  </system>
</configuration>
```

Description Secure shell (ssh) RSA public key string.

Contents <name>—Secure shell (ssh) RSA public key string.

<ssh-rsa> (configuration/system/root-authentication)

Usage

```
<configuration>
  <system>
    <root-authentication>
      <ssh-rsa>
        <name>name</name>     <!-- identifier -->
      </ssh-rsa>
    </root-authentication>
  </system>
</configuration>
```

Description Secure shell (ssh) RSA public key string.

Contents <name>—Secure shell (ssh) RSA public key string.

<ssm-groups> (configuration/routing-instances/instance/routing-options/multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <multicast>
          <ssm-groups>
            <name>name</name>     <!-- identifier -->
          </ssm-groups>
        </multicast>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Source-specific multicast group ranges.

Contents <name>—Source-specific multicast group ranges.

<ssm-groups> (configuration/routing-options/multicast)

Usage

```
<configuration>
  <routing-options>
    <multicast>
      <ssm-groups>
        <name>name</name>     <!-- identifier -->
      </ssm-groups>
    </multicast>
  </routing-options>
</configuration>
```

Description Source-specific multicast group ranges.

Contents <name>—Source-specific multicast group ranges.

<static> (configuration/protocols/igmp/interface)

Usage

```
<configuration>
  <protocols>
    <igmp>
      <interface>
        <static>
          <group>...</group>
        </static>
      </interface>
    </igmp>
  </protocols>
</configuration>
```

Description Static group or source membership.

Contents <group>—IP multicast group address.

<static> (configuration/protocols/mld/interface)

Usage

```
<configuration>
  <protocols>
    <mld>
      <interface>
        <static>
          <group>...</group>
        </static>
      </interface>
    </mld>
  </protocols>
</configuration>
```

Description Static group or source membership.

Contents <group>—IP multicast group address.

<static> (configuration/protocols/pim/rp)

Usage

```
<configuration>
  <protocols>
    <pim>
      <rp>
        <static>
          <address>...</address>
        </static>
      </rp>
    </pim>
  </protocols>
</configuration>
```

Description Configure static PIM RPs.

Contents <address>—RP address.

<static> (configuration / routing-instances / instance / protocols / pim / rp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <rp>
            <static>
              <address>...</address>
            </static>
          </rp>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure static PIM RPs.

Contents <address>—RP address.

<static> (configuration / routing-instances / instance / routing-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <rib-group>rib-group</rib-group>
          <defaults>...</defaults>
          <route>...</route>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Static routes.

Contents <defaults>—Global route options.

<rib-group>—Routing table group.

<route>—Static route.

<static> (configuration/routing-instances/instance/routing-options/rib)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <rib-group>rib-group</rib-group>
            <defaults>...</defaults>
            <route>...</route>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Static routes.

Contents <defaults>—Global route options.

<rib-group>—Routing table group.

<route>—Static route.

<static> (configuration/routing-options)

Usage

```
<configuration>
  <routing-options>
    <static>
      <rib-group>rib-group</rib-group>
      <defaults>...</defaults>
      <route>...</route>
    </static>
  </routing-options>
</configuration>
```

Description Static routes.

Contents <defaults>—Global route options.

<rib-group>—Routing table group.

<route>—Static route.

<static> (configuration/routing-options/rib)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <rib-group>rib-group</rib-group>
        <defaults>...</defaults>
        <route>...</route>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Static routes.

Contents <defaults>—Global route options.

<rib-group>—Routing table group.

<route>—Static route.

<static-host-mapping> (configuration/system)

Usage

```
<configuration>
  <system>
    <static-host-mapping>
      <name>name</name>     <!-- identifier -->
      <inet>...</inet>
      <inet6>...</inet6>
      <sysid>sysid</sysid>
      <alias>...</alias>
    </static-host-mapping>
  </system>
</configuration>
```

Description Static hostname database mapping.

Contents <alias>—Hostname alias.

<inet>—IP address.

<inet6>—IPv6 address.

<name>—Fully qualified name of system.

<sysid>—ISO/ISIS system identifier.

<static-path> (configuration/protocols/mpls)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <static-path>
        <name>name</name>     <!-- identifier -->
        <path>...</path>
      </static-path>
    </mpls>
  </protocols>
</configuration>
```

Description Static label-switched path.

Contents <name>—No documentation is available yet.

- inet—IP version 4.

<path>—Name of static label-switched path.

<statistics> (configuration/protocols/mpls)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <statistics>
        <file>...</file>     <!-- mandatory -->
        <interval>interval</interval>
        <auto-bandwidth/>
      </statistics>
    </mpls>
  </protocols>
</configuration>
```

Description Collect statistics for signaled label-switched paths.

Contents <auto-bandwidth>—Enable auto bandwidth allocation.

<file>—Statistics file options.

<interval>—Time to collect statistics (seconds).

<streaming-1> (configuration/services/ggsn/apn/quality-of-service)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <quality-of-service>
          <streaming-1>
            <name>name</name>     <!-- identifier -->
          </streaming-1>
        </quality-of-service>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description DSCP name for streaming class 1 traffic.

Contents <name>—DSCP name for streaming class 1 traffic.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- be—Best effort forwarding.
- ef—Expedited forwarding.

<streaming-1> (configuration / services / ggsn / gtp / quality-of-service)

Usage

```
<configuration>
  <services>
    <ggsn>
      <gtp>
        <quality-of-service>
          <streaming-1>
            <name>name</name>     <!-- identifier -->
          </streaming-1>
        </quality-of-service>
      </gtp>
    </ggsn>
  </services>
</configuration>
```

Description DSCP name for streaming class 1 traffic.

Contents <name>—DSCP name for streaming class 1 traffic.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- be—Best effort forwarding.
- ef—Expedited forwarding.

<streaming-2> (configuration/services/ggsn/apn/quality-of-service)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <quality-of-service>
          <streaming-2>
            <name>name</name>     <!-- identifier -->
          </streaming-2>
        </quality-of-service>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description DSCP name for streaming class 2 traffic.

Contents <name>—DSCP name for streaming class 2 traffic.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- be—Best effort forwarding.
- ef—Expedited forwarding.

<streaming-2> (configuration / services / ggsn / gtp / quality-of-service)

Usage

```
<configuration>
  <services>
    <ggsn>
      <gtp>
        <quality-of-service>
          <streaming-2>
            <name>name</name>     <!-- identifier -->
          </streaming-2>
        </quality-of-service>
      </gtp>
    </ggsn>
  </services>
</configuration>
```

Description DSCP name for streaming class 2 traffic.

Contents <name>—DSCP name for streaming class 2 traffic.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- be—Best effort forwarding.
- ef—Expedited forwarding.

<stub> (configuration/protocols/ospf/area)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <area>
        <stub>
          <default-metric>default-metric</default-metric>
          <summaries/>
        </stub>
      </area>
    </ospf>
  </protocols>
</configuration>
```

Description Configure a stub area.

Contents <default-metric>—Metric for the default route in this stub area.

<summaries>—Flood summary LSAs into this stub area.

<stub> (configuration/protocols/ospf3/area)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <area>
        <stub>
          <default-metric>default-metric</default-metric>
          <summaries/>
        </stub>
      </area>
    </ospf3>
  </protocols>
</configuration>
```

Description Configure a stub area.

Contents <default-metric>—Metric for the default route in this stub area.

<summaries>—Flood summary LSAs into this stub area.

<stub> (configuration/routing-instances/instance/protocols/ospf/area)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <area>
            <stub>
              <default-metric>default-metric</default-metric>
              <summaries/>
            </stub>
          </area>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure a stub area.

Contents <default-metric>—Metric for the default route in this stub area.

<summaries>—Flood summary LSAs into this stub area.

<syslog> (configuration/routing-instances/instance/routing-options/options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <options>
          <syslog>
            <level>...</level>
            <upto>upto-choice</upto>
          </syslog>
        </options>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Set system logging level.

Contents <level>—Logging level.

<upto>—Log up to a particular logging level.

- alert—Alert level.
- critical—Critical level.
- debug—Debugging level.
- emergency—Emergency level.

- error—Error level.
- info—Informational level.
- notice—Notice level.
- warning—Warning level.

<syslog> (configuration/routing-options/options)

Usage

```
<configuration>
  <routing-options>
    <options>
      <syslog>
        <level>...</level>
        <upto>upto-choice</upto>
      </syslog>
    </options>
  </routing-options>
</configuration>
```

Description Set system logging level.

Contents <level>—Logging level.

<upto>—Log up to a particular logging level.

- alert—Alert level.
- critical—Critical level.
- debug—Debugging level.
- emergency—Emergency level.
- error—Error level.
- info—Informational level.
- notice—Notice level.
- warning—Warning level.

<syslog> (configuration/system)

Usage

```
<configuration>
  <system>
    <syslog>
      <archive>...</archive>
      <user>...</user>
      <host>...</host>
      <file>...</file>
      <console>...</console>
    </syslog>
  </system>
</configuration>
```

Description System logging facility.

Contents <archive>—Archive file information.

<console>—Console logging.

<file>—File in which to log data.

<host>—Host to be notified.

<user>—Notify a user of the event.

<system> (configuration)

Usage

```
<configuration>
  <system>
    <host-name>host-name</host-name>
    <domain-name>domain-name</domain-name>
    <domain-search>...</domain-search>
    <backup-router>...</backup-router>
    <inet6-backup-router>...</inet6-backup-router>
    <time-zone><continent>/<major-city></time-zone>
    <default-address-selection/>
    <no-redirects/>
    <saved-core-context/>
    <mirror-flash-on-disk/>
    <authentication-order>...</authentication-order>
    <location>...</location>
    <ports>...</ports>
    <diag-port-authentication>...</diag-port-authentication>
    <pic-console-authentication>...</pic-console-authentication>
    <root-authentication>...</root-authentication>
    <name-server>...</name-server>
    <radius-server>...</radius-server>
    <tacplus-server>...</tacplus-server>
    <login>...</login>
    <static-host-mapping>...</static-host-mapping>
    <services>...</services>
    <syslog>...</syslog>
    <compress-configuration-files/>
  </system>
</configuration>
```

Description System parameters.

Contents <authentication-order>—Order in which authentication methods are invoked.

<backup-router>—IPv4 router to use while booting.

<compress-configuration-files>—Compress the router configuration files.

<default-address-selection>—Use system address for locally originated traffic.

<diag-port-authentication>—Authentication for the diagnostic port.

<domain-name>—Domain name for this router.

<domain-search>—List of domain names to search.

<host-name>—Hostname for this router.

<inet6-backup-router>—IPv6 router to use while booting.

<location>—Location of the system, in various forms.

<login>—Names, login classes, and passwords for users.

<mirror-flash-on-disk>—Mirror contents of the flash drive onto hard drive.

<name-server>—DNS name servers.

<no-redirects>—Disable ICMP redirects.

<pic-console-authentication>—Authentication for the console port on PICs.

<ports>—Craft interface RS-232 ports.

<radius-server>—RADIUS server configuration.

<root-authentication>—Authentication information for the root login.

<saved-core-context>—Save context information for core files.

<services>—System services.

<static-host-mapping>—Static hostname database mapping.

<syslog>—System logging facility.

<tacplus-server>—TACACS + server configuration.

<time-zone>—Time zone definition name.

<t1> (configuration/chassis/fpc/pic/ct3/port)

Usage

```
<configuration>
  <chassis>
    <fpc>
      <pic>
        <ct3>
          <port>
            <t1>
              <name>name</name>     <!-- identifier -->
              <channel-group>...</channel-group>
            </t1>
          </port>
        </ct3>
      </pic>
    </fpc>
  </chassis>
</configuration>
```

Description T1 link.

Contents <channel-group>—Define a channel group.

<name>—T1 link number.

<t1-options> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <t1-options>
        <timeslots>timeslots</timeslots>
        <loopback>loopback-choice</loopback>
        <buildout>buildout-choice</buildout>
        <byte-encoding>byte-encoding-choice</byte-encoding>
        <line-encoding>line-encoding-choice</line-encoding>
        <invert-data/>
        <framing>framing-choice</framing>
        <fcs>fcs-choice</fcs>
        <idle-cycle-flag>idle-cycle-flag-choice</idle-cycle-flag>
        <start-end-flag>start-end-flag-choice</start-end-flag>
        <bert-algorithm>bert-algorithm-choice</bert-algorithm>
        <bert-error-rate>bert-error-rate</bert-error-rate>
        <bert-period>seconds</bert-period>
      </t1-options>
    </interface>
  </interfaces>
</configuration>
```

Description T1 interface-specific options.

Contents <bert-algorithm>—Set BERT algorithm.

- all-ones-repeating—Repeating one bits.
- all-zeros-repeating—Repeating zero bits.
- alternating-double-ones-zeros—Alternating pairs of ones and zeros.
- alternating-ones-zeros—Alternating ones and zeros.
- pseudo-2e11-o152—Pattern is 2^11 -1 (per O.152 standard).
- pseudo-2e15-o151—Pattern is 2^15 - 1 (per O.152 standard).
- pseudo-2e20-o151—Pattern is 2^20 - 1 (per O.151 standard).
- pseudo-2e20-o153—Pattern is 2^20 - 1 (per O.153 standard).
- repeating-1-in-4—1 bit in 4 is set.
- repeating-1-in-8—1 bit in 8 is set.
- repeating-3-in-24—3 bits in 24 are set.

<bert-error-rate>—Bit error rate to use in BERT test (10^-n).

<bert-period>—Length of BERT test.

<buildout>—Line buildout.

- 0-132—Line buildout is between 0-132 feet.
- 133-265—Line buildout is between 133-265 feet.
- 266-398—Line buildout is between 266-398 feet.
- 399-531—Line buildout is between 399-531 feet.
- 532-655—Line buildout is between 532-655 feet.

<byte-encoding>—Byte encoding.

- nx56—7 bits per byte.
- nx64—8 bits per byte.

<fcs>—Frame checksum.

- 16—16-bit mode.
- 32—32-bit mode.

<framing>—Framing mode.

- esf—Extended super frame.
- sf—Super frame.

<idle-cycle-flag>—Value to transmit in idle cycles.

- flags—Transmit 0x7E in idle cycles.
- ones—Transmit 0xFF (all ones) in idle cycles.

<invert-data>—Invert data.

<line-encoding>—Line encoding.

- ami—Automatic mark inversion.
- b8zs—8-bit zero suppression.

<loopback>—Loopback mode.

- local—Local loopback.
- remote—Remote loopback.

<start-end-flag>—Set start/end flags on transmission.

- filler—Send two idle cycles between start/end flags.
- shared—Share start/end flags on transmit.

<timeslots>—Timeslots (1..24); for example, 1-3,4,9,22-24 (no space).

<t3> (configuration/chassis/alarm)

Usage

```
<configuration>
  <chassis>
    <alarm>
      <t3>
        <ais>ais-choice</ais>
        <exz>exz-choice</exz>
        <ferf>ferf-choice</ferf>
        <idle>idle-choice</idle>
        <lcv>lcv-choice</lcv>
        <lof>lof-choice</lof>
        <los>los-choice</los>
        <pll>pll-choice</pll>
        <ylw>ylw-choice</ylw>
      </t3>
    </alarm>
  </chassis>
</configuration>
```

Description DS-3 alarms.

Contents <ais>—Alarm indicator signal.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<exz>—Excessive zeros.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<ferf>—Far-end failure.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<idle>—Idle alarm.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<lcv>—Line code violation.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<lof>—Loss of frame.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<los>—Loss of signal.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<pll>—Phase-locked loop out of lock.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<ylw>—Yellow alarm.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<t3-options> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <t3-options>
        <loopback>loopback-choice</loopback>
        <long-buildout/>
        <loop-timing/>
        <compatibility-mode>...</compatibility-mode>
        <payload-scrambler/>
        <cbit-parity/>
        <fcs>fcs-choice</fcs>
        <idle-cycle-flag>idle-cycle-flag-choice</idle-cycle-flag>
        <start-end-flag>start-end-flag-choice</start-end-flag>
        <feac-loop-respond/>
        <bert-algorithm>bert-algorithm-choice</bert-algorithm>
        <bert-error-rate>bert-error-rate</bert-error-rate>
        <bert-period>seconds</bert-period>
        <buildout>feet</buildout>
        <atm-encapsulation>atm-encapsulation-choice</atm-encapsulation>
      </t3-options>
    </interface>
  </interfaces>
</configuration>
```

Description T3 interface-specific options.

Contents <atm-encapsulation>—DS-3 interface encapsulation.

- direct—ATM direct mapping.
- plcp—PLCP encapsulation.

<bert-algorithm>—Set BERT algorithm.

- all-ones-repeating—Repeating one bits.
- all-zeros-repeating—Repeating zero bits.
- alternating-double-ones-zeros—Alternating pairs of ones and zeros.
- alternating-ones-zeros—Alternating ones and zeros.
- pseudo-2e10—Pattern is 2^10 - 1.
- pseudo-2e11-o152—Pattern is 2^11 -1 (per O.152 standard).
- pseudo-2e15-o151—Pattern is 2^15 - 1 (per O.152 standard).
- pseudo-2e17—Pattern is 2^17 - 1.
- pseudo-2e18—Pattern is 2^18 - 1.
- pseudo-2e20-o151—Pattern is 2^20 - 1 (per O.151 standard).
- pseudo-2e20-o153—Pattern is 2^20 - 1 (per O.153 standard).

- pseudo-2e21—Pattern is 2^21 - 1.
- pseudo-2e22—Pattern is 2^22 - 1.
- pseudo-2e23-o151—Pattern is 2^23 (per O.151 standard).
- pseudo-2e25—Pattern is 2^25 - 1.
- pseudo-2e28—Pattern is 2^28 - 1.
- pseudo-2e29—Pattern is 2^29 - 1.
- pseudo-2e3—Pattern is 2^3 - 1.
- pseudo-2e31—Pattern is 2^31 - 1.
- pseudo-2e32—Pattern is 2^32 - 1.
- pseudo-2e4—Pattern is 2^4 - 1.
- pseudo-2e5—Pattern is 2^5 - 1.
- pseudo-2e6—Pattern is 2^6 - 1.
- pseudo-2e7—Pattern is 2^7 - 1.
- pseudo-2e9-o153—Pattern is 2^9 - 1 (per O.153 standard).
- repeating-1-in-4—1 bit in 4 is set.
- repeating-1-in-8—1 bit in 8 is set.
- repeating-3-in-24—3 bits in 24 are set.

<bert-error-rate>—Bit error rate to use in BERT test (10^-n).

<bert-period>—Length of BERT test.

<buildout>—Line buildout.

<cbit-parity>—Enable C-bit parity mode.

<compatibility-mode>—Set CSU compatibility mode.

<fcs>—Frame checksum.

- 16—16-bit mode.
- 32—32-bit mode.

<feac-loop-respond>—Respond to FEAC loop requests.

<idle-cycle-flag>—Value to transmit in idle cycles.

- flags—Transmit 0x7E in idle cycles.
- ones—Transmit 0xFF (all ones) in idle cycles.

<long-buildout>—Set hardware to drive line longer than 255 feet.

<loop-timing>—Set loop-timing for all T1 channel under CT3.

<loopback>—Loopback mode.

- local—Local loopback.
- remote—Remote loopback.

<payload-scrambler>—Enable payload scrambling.

<start-end-flag>—Set start/end flags on transmission.

- filler—Send two idle cycles between start/end flags.
- shared—Share start/end flags on transmit.

<tacplus-server> (configuration/system)

Usage

```
<configuration>
  <system>
    <tacplus-server>
      <name>name</name>     <!-- identifier -->
      <secret>secret</secret>
      <timeout>seconds</timeout>
      <single-connection/>
    </tacplus-server>
  </system>
</configuration>
```

Description TACACS + server configuration.

Contents <name>—TACACS + authentication server address.

<secret>—Shared secret with the authentication server.

<single-connection>—Optimize TCP connection attempts.

<timeout>—Request timeout period.

<tag> (configuration/policy-options/policy-statement/from/route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <tag>
            <tag>tag</tag>
            <add>add</add>
            <subtract>subtract</subtract>
          </tag>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Tag string.

Contents <add>—Add constant to attribute.

<subtract>—Subtract constant from attribute.

<tag>—No documentation is available yet.

<tag> (configuration/policy-options/policy-statement/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <tag>
            <tag>tag</tag>
            <add>add</add>
            <subtract>subtract</subtract>
          </tag>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Tag string.

Contents <add>—Add constant to attribute.

<subtract>—Subtract constant from attribute.

<tag>—No documentation is available yet.

<tag> (configuration/policy-options/policy-statement/term/from/route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <tag>
              <tag>tag</tag>
              <add>add</add>
              <subtract>subtract</subtract>
            </tag>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Tag string.

Contents <add>—Add constant to attribute.

<subtract>—Subtract constant from attribute.

<tag>—No documentation is available yet.

<tag> (configuration/policy-options/policy-statement/term/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <tag>
              <tag>tag</tag>
              <add>add</add>
              <subtract>subtract</subtract>
            </tag>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Tag string.

Contents <add>—Add constant to attribute.

<subtract>—Subtract constant from attribute.

<tag>—No documentation is available yet.

<tag> (configuration / policy-options / policy-statement / term / then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <tag>
            <tag>tag</tag>
            <add>add</add>
            <subtract>subtract</subtract>
          </tag>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Tag string.

Contents <add>—Add constant to attribute.

<subtract>—Subtract constant from attribute.

<tag>—No documentation is available yet.

<tag> (configuration / policy-options / policy-statement / then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <then>
        <tag>
          <tag>tag</tag>
          <add>add</add>
          <subtract>subtract</subtract>
        </tag>
      </then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Tag string.

Contents <add>—Add constant to attribute.

<subtract>—Subtract constant from attribute.

<tag>—No documentation is available yet.

<tag> (configuration/routing-instances/instance/routing-options/aggregate/defaults)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <aggregate>
               <defaults>
                  <tag>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </tag>
               </defaults>
            </aggregate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration/routing-instances/instance/routing-options/aggregate/route)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <aggregate>
               <route>
                  <tag>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </tag>
               </route>
            </aggregate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration/routing-instances/instance/routing-options/generate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <generate>
          <defaults>
            <tag>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </tag>
          </defaults>
        </generate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration/routing-instances/instance/routing-options/generate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <generate>
          <route>
            <tag>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </tag>
          </route>
        </generate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration/routing-instances/instance/routing-options/rib/aggregate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <defaults>
              <tag>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </tag>
            </defaults>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration/routing-instances/instance/routing-options/rib/aggregate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <route>
              <tag>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </tag>
            </route>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration/routing-instances/instance/routing-options/rib/generate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <defaults>
              <tag>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </tag>
            </defaults>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration/routing-instances/instance/routing-options/rib/generate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <route>
              <tag>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </tag>
            </route>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration/routing-instances/instance/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <defaults>
              <tag>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </tag>
            </defaults>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration/routing-instances/instance/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <route>
              <tag>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </tag>
            </route>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration/routing-instances/instance/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <defaults>
            <tag>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </tag>
          </defaults>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration/routing-instances/instance/routing-options/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <route>
            <tag>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </tag>
          </route>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration / routing-options / aggregate / defaults)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <defaults>
        <tag>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </tag>
      </defaults>
    </aggregate>
  </routing-options>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration / routing-options / aggregate / route)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <route>
        <tag>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </tag>
      </route>
    </aggregate>
  </routing-options>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration/routing-options/generate/defaults)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <defaults>
        <tag>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </tag>
      </defaults>
    </generate>
  </routing-options>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration/routing-options/generate/route)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <route>
        <tag>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </tag>
      </route>
    </generate>
  </routing-options>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration / routing-options / rib / aggregate / defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <defaults>
          <tag>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </tag>
        </defaults>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration / routing-options / rib / aggregate / route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <route>
          <tag>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </tag>
        </route>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration/routing-options/rib/generate/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <defaults>
          <tag>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </tag>
        </defaults>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration/routing-options/rib/generate/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <route>
          <tag>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </tag>
        </route>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <defaults>
          <tag>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </tag>
        </defaults>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <route>
          <tag>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </tag>
        </route>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <static>
      <defaults>
        <tag>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </tag>
      </defaults>
    </static>
  </routing-options>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag> (configuration/routing-options/static/route)

Usage

```
<configuration>
  <routing-options>
    <static>
      <route>
        <tag>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </tag>
      </route>
    </static>
  </routing-options>
</configuration>
```

Description Tag string.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration / policy-options / policy-statement / from / route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <route-filter>
          <tag2>
            <tag2>tag2</tag2>
            <add>add</add>
            <subtract>subtract</subtract>
          </tag2>
        </route-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Tag string 2.

Contents <add>—Add constant to attribute.

<subtract>—Subtract constant from attribute.

<tag2>—No documentation is available yet.

<tag2> (configuration / policy-options / policy-statement / from / source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <tag2>
            <tag2>tag2</tag2>
            <add>add</add>
            <subtract>subtract</subtract>
          </tag2>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Tag string 2.

Contents <add>—Add constant to attribute.

<subtract>—Subtract constant from attribute.

<tag2>—No documentation is available yet.

<tag2> (configuration/policy-options/policy-statement/term/from/route-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <route-filter>
            <tag2>
              <tag2>tag2</tag2>
              <add>add</add>
              <subtract>subtract</subtract>
            </tag2>
          </route-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Tag string 2.

Contents <add>—Add constant to attribute.

<subtract>—Subtract constant from attribute.

<tag2>—No documentation is available yet.

<tag2> (configuration/policy-options/policy-statement/term/from/source-address-filter)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <source-address-filter>
            <tag2>
              <tag2>tag2</tag2>
              <add>add</add>
              <subtract>subtract</subtract>
            </tag2>
          </source-address-filter>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Tag string 2.

Contents <add>—Add constant to attribute.

<subtract>—Subtract constant from attribute.

<tag2>—No documentation is available yet.

<tag2> (configuration / policy-options / policy-statement / term / then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <tag2>
            <tag2>tag2</tag2>
            <add>add</add>
            <subtract>subtract</subtract>
          </tag2>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Tag string 2.

Contents <add>—Add constant to attribute.

<subtract>—Subtract constant from attribute.

<tag2>—No documentation is available yet.

<tag2> (configuration / policy-options / policy-statement / then)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <then>
        <tag2>
          <tag2>tag2</tag2>
          <add>add</add>
          <subtract>subtract</subtract>
        </tag2>
      </then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Tag string 2.

Contents <add>—Add constant to attribute.

<subtract>—Subtract constant from attribute.

<tag2>—No documentation is available yet.

<tag2> (configuration/routing-instances/instance/routing-options/aggregate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <defaults>
            <tag2>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </tag2>
          </defaults>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-instances/instance/routing-options/aggregate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <aggregate>
          <route>
            <tag2>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </tag2>
          </route>
        </aggregate>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration / routing-instances / instance / routing-options / generate / defaults)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <generate>
               <defaults>
                  <tag2>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </tag2>
               </defaults>
            </generate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration / routing-instances / instance / routing-options / generate / route)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <routing-options>
            <generate>
               <route>
                  <tag2>
                     <metric-value>metric-value</metric-value>     <!-- mandatory -->
                     <type>type</type>
                  </tag2>
               </route>
            </generate>
         </routing-options>
      </instance>
   </routing-instances>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-instances/instance/routing-options/rib/aggregate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <defaults>
              <tag2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </tag2>
            </defaults>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-instances/instance/routing-options/rib/aggregate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <aggregate>
            <route>
              <tag2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </tag2>
            </route>
          </aggregate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-instances/instance/routing-options/rib/generate/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <defaults>
              <tag2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </tag2>
            </defaults>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-instances/instance/routing-options/rib/generate/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <generate>
            <route>
              <tag2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </tag2>
            </route>
          </generate>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-instances/instance/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <defaults>
              <tag2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </tag2>
            </defaults>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-instances/instance/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <route>
              <tag2>
                <metric-value>metric-value</metric-value>     <!-- mandatory -->
                <type>type</type>
              </tag2>
            </route>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-instances/instance/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <defaults>
            <tag2>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </tag2>
          </defaults>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-instances/instance/routing-options/static/route)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <static>
          <route>
            <tag2>
              <metric-value>metric-value</metric-value>     <!-- mandatory -->
              <type>type</type>
            </tag2>
          </route>
        </static>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-options/aggregate/defaults)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <defaults>
        <tag2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </tag2>
      </defaults>
    </aggregate>
  </routing-options>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-options/aggregate/route)

Usage

```
<configuration>
  <routing-options>
    <aggregate>
      <route>
        <tag2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </tag2>
      </route>
    </aggregate>
  </routing-options>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-options/generate/defaults)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <defaults>
        <tag2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </tag2>
      </defaults>
    </generate>
  </routing-options>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-options/generate/route)

Usage

```
<configuration>
  <routing-options>
    <generate>
      <route>
        <tag2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </tag2>
      </route>
    </generate>
  </routing-options>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-options/rib/aggregate/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <defaults>
          <tag2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </tag2>
        </defaults>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-options/rib/aggregate/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <aggregate>
        <route>
          <tag2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </tag2>
        </route>
      </aggregate>
    </rib>
  </routing-options>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-options/rib/generate/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <defaults>
          <tag2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </tag2>
        </defaults>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-options/rib/generate/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <generate>
        <route>
          <tag2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </tag2>
        </route>
      </generate>
    </rib>
  </routing-options>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-options/rib/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <defaults>
          <tag2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </tag2>
        </defaults>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-options/rib/static/route)

Usage

```
<configuration>
  <routing-options>
    <rib>
      <static>
        <route>
          <tag2>
            <metric-value>metric-value</metric-value>     <!-- mandatory -->
            <type>type</type>
          </tag2>
        </route>
      </static>
    </rib>
  </routing-options>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-options/static/defaults)

Usage

```
<configuration>
  <routing-options>
    <static>
      <defaults>
        <tag2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </tag2>
      </defaults>
    </static>
  </routing-options>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<tag2> (configuration/routing-options/static/route)

Usage

```
<configuration>
  <routing-options>
    <static>
      <route>
        <tag2>
          <metric-value>metric-value</metric-value>     <!-- mandatory -->
          <type>type</type>
        </tag2>
      </route>
    </static>
  </routing-options>
</configuration>
```

Description Tag string 2.

Contents <metric-value>—Metric value.

<type>—Metric type.

<targets> (configuration/snmp/trap-group)

Usage

```
<configuration>
  <snmp>
    <trap-group>
      <targets>
        <name>name</name>     <!-- identifier -->
      </targets>
    </trap-group>
  </snmp>
</configuration>
```

Description Targets for trap messages.

Contents <name>—IP address.

<tariff-activation> (configuration/services/ggsn/charging)

Usage

```
<configuration>
  <services>
    <ggsn>
      <charging>
        <tariff-activation>
          <name>name</name>     <!-- identifier -->
          <starts>starts</starts>
        </tariff-activation>
      </charging>
    </ggsn>
  </services>
</configuration>
```

Description UTC times when new tariffs apply.

Contents <name>—Tariff time index.

<starts>—UTC time that tariff is activated.

<tcc> (configuration / interfaces / interface / unit / family)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <tcc>
            <policer>...</policer>
            <proxy>...</proxy>
            <remote>...</remote>
          </tcc>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Translational cross-connect parameters.

Contents <policer>—Interface policing.

<proxy>—No documentation is available yet.

<remote>—No documentation is available yet.

<te-link> (configuration / protocols / link-management)

Usage

```
<configuration>
  <protocols>
    <link-management>
      <te-link>
        <name>name</name>     <!-- identifier -->
        <local-address>local-address</local-address>
        <remote-address>remote-address</remote-address>
        <remote-id>remote-id</remote-id>
        <interface>...</interface>
      </te-link>
    </link-management>
  </protocols>
</configuration>
```

Description Traffic engineering link.

Contents <interface>—Member interface of TE link.

<local-address>—Address of the local end of the link.

<name>—Name of TE link.

<remote-address>—Address of the remote end of the link.

<remote-id>—Link ID for the remote end of the link.

<te-link> (configuration/protocols/link-management/peer)

Usage

```
<configuration>
  <protocols>
    <link-management>
      <peer>
        <te-link>
          <name>name</name>     <!-- identifier -->
        </te-link>
      </peer>
    </link-management>
  </protocols>
</configuration>
```

Description List of TE links managed by this peer.

Contents <name>—List of TE links managed by this peer.

<teardown> (configuration/protocols/bgp/family/inet/any/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <any>
            <prefix-limit>
              <teardown>
                <limit-threshold>limit-threshold</limit-threshold>
                <idle-timeout>...</idle-timeout>
              </teardown>
            </prefix-limit>
          </any>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/family/inet/labeled-unicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <labeled-unicast>
            <prefix-limit>
              <teardown>
                <limit-threshold>limit-threshold</limit-threshold>
                <idle-timeout>...</idle-timeout>
              </teardown>
            </prefix-limit>
          </labeled-unicast>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/family/inet/multicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <multicast>
            <prefix-limit>
              <teardown>
                <limit-threshold>limit-threshold</limit-threshold>
                <idle-timeout>...</idle-timeout>
              </teardown>
            </prefix-limit>
          </multicast>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/family/inet/unicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <unicast>
            <prefix-limit>
              <teardown>
                <limit-threshold>limit-threshold</limit-threshold>
                <idle-timeout>...</idle-timeout>
              </teardown>
            </prefix-limit>
          </unicast>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/family/inet-vpn/any/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet-vpn>
          <any>
            <prefix-limit>
              <teardown>
                <limit-threshold>limit-threshold</limit-threshold>
                <idle-timeout>...</idle-timeout>
              </teardown>
            </prefix-limit>
          </any>
        </inet-vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/family/inet-vpn/multicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet-vpn>
          <multicast>
            <prefix-limit>
              <teardown>
                <limit-threshold>limit-threshold</limit-threshold>
                <idle-timeout>...</idle-timeout>
              </teardown>
            </prefix-limit>
          </multicast>
        </inet-vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/family/inet-vpn/unicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet-vpn>
          <unicast>
            <prefix-limit>
              <teardown>
                <limit-threshold>limit-threshold</limit-threshold>
                <idle-timeout>...</idle-timeout>
              </teardown>
            </prefix-limit>
          </unicast>
        </inet-vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/family/inet6/any/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <any>
            <prefix-limit>
              <teardown>
                <limit-threshold>limit-threshold</limit-threshold>
                <idle-timeout>...</idle-timeout>
              </teardown>
            </prefix-limit>
          </any>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/family/inet6/labeled-unicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <labeled-unicast>
            <prefix-limit>
              <teardown>
                <limit-threshold>limit-threshold</limit-threshold>
                <idle-timeout>...</idle-timeout>
              </teardown>
            </prefix-limit>
          </labeled-unicast>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/family/inet6/multicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <multicast>
            <prefix-limit>
              <teardown>
                <limit-threshold>limit-threshold</limit-threshold>
                <idle-timeout>...</idle-timeout>
              </teardown>
            </prefix-limit>
          </multicast>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/family/inet6/unicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <unicast>
            <prefix-limit>
              <teardown>
                <limit-threshold>limit-threshold</limit-threshold>
                <idle-timeout>...</idle-timeout>
              </teardown>
            </prefix-limit>
          </unicast>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/family/l2vpn/unicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <l2vpn>
          <unicast>
            <prefix-limit>
              <teardown>
                <limit-threshold>limit-threshold</limit-threshold>
                <idle-timeout>...</idle-timeout>
              </teardown>
            </prefix-limit>
          </unicast>
        </l2vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/family/inet/any/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <any>
              <prefix-limit>
                <teardown>
                  <limit-threshold>limit-threshold</limit-threshold>
                  <idle-timeout>...</idle-timeout>
                </teardown>
              </prefix-limit>
            </any>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/family/inet/labeled-unicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <labeled-unicast>
              <prefix-limit>
                <teardown>
                  <limit-threshold>limit-threshold</limit-threshold>
                  <idle-timeout>...</idle-timeout>
                </teardown>
              </prefix-limit>
            </labeled-unicast>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/family/inet/multicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <multicast>
              <prefix-limit>
                <teardown>
                  <limit-threshold>limit-threshold</limit-threshold>
                  <idle-timeout>...</idle-timeout>
                </teardown>
              </prefix-limit>
            </multicast>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/family/inet/unicast/prefix-limit)

Usage

```
<configuration>
   <protocols>
      <bgp>
         <group>
            <family>
               <inet>
                  <unicast>
                     <prefix-limit>
                        <teardown>
                           <limit-threshold>limit-threshold</limit-threshold>
                           <idle-timeout>...</idle-timeout>
                        </teardown>
                     </prefix-limit>
                  </unicast>
               </inet>
            </family>
         </group>
      </bgp>
   </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/family/inet-vpn/any/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet-vpn>
            <any>
              <prefix-limit>
                <teardown>
                  <limit-threshold>limit-threshold</limit-threshold>
                  <idle-timeout>...</idle-timeout>
                </teardown>
              </prefix-limit>
            </any>
          </inet-vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/family/inet-vpn/multicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet-vpn>
            <multicast>
              <prefix-limit>
                <teardown>
                  <limit-threshold>limit-threshold</limit-threshold>
                  <idle-timeout>...</idle-timeout>
                </teardown>
              </prefix-limit>
            </multicast>
          </inet-vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/family/inet-vpn/unicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet-vpn>
            <unicast>
              <prefix-limit>
                <teardown>
                  <limit-threshold>limit-threshold</limit-threshold>
                  <idle-timeout>...</idle-timeout>
                </teardown>
              </prefix-limit>
            </unicast>
          </inet-vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/family/inet6/any/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <any>
              <prefix-limit>
                <teardown>
                  <limit-threshold>limit-threshold</limit-threshold>
                  <idle-timeout>...</idle-timeout>
                </teardown>
              </prefix-limit>
            </any>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/family/inet6/labeled-unicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <labeled-unicast>
              <prefix-limit>
                <teardown>
                  <limit-threshold>limit-threshold</limit-threshold>
                  <idle-timeout>...</idle-timeout>
                </teardown>
              </prefix-limit>
            </labeled-unicast>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/family/inet6/multicast/prefix-limit)

Usage

```
<configuration>
   <protocols>
      <bgp>
         <group>
            <family>
               <inet6>
                  <multicast>
                     <prefix-limit>
                        <teardown>
                           <limit-threshold>limit-threshold</limit-threshold>
                           <idle-timeout>...</idle-timeout>
                        </teardown>
                     </prefix-limit>
                  </multicast>
               </inet6>
            </family>
         </group>
      </bgp>
   </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/family/inet6/unicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <unicast>
              <prefix-limit>
                <teardown>
                  <limit-threshold>limit-threshold</limit-threshold>
                  <idle-timeout>...</idle-timeout>
                </teardown>
              </prefix-limit>
            </unicast>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/family/l2vpn/unicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <l2vpn>
            <unicast>
              <prefix-limit>
                <teardown>
                  <limit-threshold>limit-threshold</limit-threshold>
                  <idle-timeout>...</idle-timeout>
                </teardown>
              </prefix-limit>
            </unicast>
          </l2vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/neighbor/family/inet/any/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <any>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </any>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/neighbor/family/inet/labeled-unicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <labeled-unicast>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </labeled-unicast>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/neighbor/family/inet/multicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <multicast>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </multicast>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/neighbor/family/inet/unicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <unicast>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </unicast>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/neighbor/family/inet-vpn/any/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet-vpn>
              <any>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </any>
            </inet-vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/neighbor/family/inet-vpn/multicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet-vpn>
              <multicast>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </multicast>
            </inet-vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/neighbor/family/inet-vpn/unicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet-vpn>
              <unicast>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </unicast>
            </inet-vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/neighbor/family/inet6/any/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <any>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </any>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/neighbor/family/inet6/labeled-unicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <labeled-unicast>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </labeled-unicast>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/neighbor/family/inet6/multicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <multicast>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </multicast>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/neighbor/family/inet6/unicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <unicast>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </unicast>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/protocols/bgp/group/neighbor/family/l2vpn/unicast/prefix-limit)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <l2vpn>
              <unicast>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </unicast>
            </l2vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/family/inet/any/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <any>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </any>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/family/inet/labeled-unicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <labeled-unicast>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </labeled-unicast>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/family/inet/multicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <multicast>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </multicast>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/family/inet/unicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <unicast>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </unicast>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/family/inet-vpn/any/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet-vpn>
              <any>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </any>
            </inet-vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/family/inet-vpn/multicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet-vpn>
              <multicast>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </multicast>
            </inet-vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/family/inet-vpn/unicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet-vpn>
              <unicast>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </unicast>
            </inet-vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/family/inet6/any/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <any>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </any>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/family/inet6/labeled-unicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <labeled-unicast>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </labeled-unicast>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/family/inet6/multicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <multicast>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </multicast>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/family/inet6/unicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <unicast>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </unicast>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/family/l2vpn/unicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <l2vpn>
              <unicast>
                <prefix-limit>
                  <teardown>
                    <limit-threshold>limit-threshold</limit-threshold>
                    <idle-timeout>...</idle-timeout>
                  </teardown>
                </prefix-limit>
              </unicast>
            </l2vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/group/family/inet/any/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <any>
                  <prefix-limit>
                    <teardown>
                      <limit-threshold>limit-threshold</limit-threshold>
                      <idle-timeout>...</idle-timeout>
                    </teardown>
                  </prefix-limit>
                </any>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/group/family/inet/labeled-unicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <labeled-unicast>
                  <prefix-limit>
                    <teardown>
                      <limit-threshold>limit-threshold</limit-threshold>
                      <idle-timeout>...</idle-timeout>
                    </teardown>
                  </prefix-limit>
                </labeled-unicast>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/group/family/inet/multicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <multicast>
                  <prefix-limit>
                    <teardown>
                      <limit-threshold>limit-threshold</limit-threshold>
                      <idle-timeout>...</idle-timeout>
                    </teardown>
                  </prefix-limit>
                </multicast>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration / routing-instances / instance / protocols / bgp / group / family / inet / unicast / prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <unicast>
                  <prefix-limit>
                    <teardown>
                      <limit-threshold>limit-threshold</limit-threshold>
                      <idle-timeout>...</idle-timeout>
                    </teardown>
                  </prefix-limit>
                </unicast>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/group/family/inet-vpn/any/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet-vpn>
                <any>
                  <prefix-limit>
                    <teardown>
                      <limit-threshold>limit-threshold</limit-threshold>
                      <idle-timeout>...</idle-timeout>
                    </teardown>
                  </prefix-limit>
                </any>
              </inet-vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/group/family/inet-vpn/multicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet-vpn>
                <multicast>
                  <prefix-limit>
                    <teardown>
                      <limit-threshold>limit-threshold</limit-threshold>
                      <idle-timeout>...</idle-timeout>
                    </teardown>
                  </prefix-limit>
                </multicast>
              </inet-vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/group/family/inet-vpn/unicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet-vpn>
                <unicast>
                  <prefix-limit>
                    <teardown>
                      <limit-threshold>limit-threshold</limit-threshold>
                      <idle-timeout>...</idle-timeout>
                    </teardown>
                  </prefix-limit>
                </unicast>
              </inet-vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/group/family/inet6/any/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet6>
                <any>
                  <prefix-limit>
                    <teardown>
                      <limit-threshold>limit-threshold</limit-threshold>
                      <idle-timeout>...</idle-timeout>
                    </teardown>
                  </prefix-limit>
                </any>
              </inet6>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/group/family/inet6/labeled-unicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet6>
                <labeled-unicast>
                  <prefix-limit>
                    <teardown>
                      <limit-threshold>limit-threshold</limit-threshold>
                      <idle-timeout>...</idle-timeout>
                    </teardown>
                  </prefix-limit>
                </labeled-unicast>
              </inet6>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/group/family/inet6/multicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet6>
                <multicast>
                  <prefix-limit>
                    <teardown>
                      <limit-threshold>limit-threshold</limit-threshold>
                      <idle-timeout>...</idle-timeout>
                    </teardown>
                  </prefix-limit>
                </multicast>
              </inet6>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/group/family/inet6/unicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet6>
                <unicast>
                  <prefix-limit>
                    <teardown>
                      <limit-threshold>limit-threshold</limit-threshold>
                      <idle-timeout>...</idle-timeout>
                    </teardown>
                  </prefix-limit>
                </unicast>
              </inet6>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/group/family/l2vpn/unicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <l2vpn>
                <unicast>
                  <prefix-limit>
                    <teardown>
                      <limit-threshold>limit-threshold</limit-threshold>
                      <idle-timeout>...</idle-timeout>
                    </teardown>
                  </prefix-limit>
                </unicast>
              </l2vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet/any/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <any>
                    <prefix-limit>
                      <teardown>
                        <limit-threshold>limit-threshold</limit-threshold>
                        <idle-timeout>...</idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </any>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet / labeled-unicast / prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <labeled-unicast>
                    <prefix-limit>
                      <teardown>
                        <limit-threshold>limit-threshold</limit-threshold>
                        <idle-timeout>...</idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </labeled-unicast>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet/multicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <multicast>
                    <prefix-limit>
                      <teardown>
                        <limit-threshold>limit-threshold</limit-threshold>
                        <idle-timeout>...</idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </multicast>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet / unicast / prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <unicast>
                    <prefix-limit>
                      <teardown>
                        <limit-threshold>limit-threshold</limit-threshold>
                        <idle-timeout>...</idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </unicast>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet-vpn/any/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet-vpn>
                  <any>
                    <prefix-limit>
                      <teardown>
                        <limit-threshold>limit-threshold</limit-threshold>
                        <idle-timeout>...</idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </any>
                </inet-vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet-vpn / multicast / prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet-vpn>
                  <multicast>
                    <prefix-limit>
                      <teardown>
                        <limit-threshold>limit-threshold</limit-threshold>
                        <idle-timeout>...</idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </multicast>
                </inet-vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet-vpn / unicast / prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet-vpn>
                  <unicast>
                    <prefix-limit>
                      <teardown>
                        <limit-threshold>limit-threshold</limit-threshold>
                        <idle-timeout>...</idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </unicast>
                </inet-vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet6 / any / prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <any>
                    <prefix-limit>
                      <teardown>
                        <limit-threshold>limit-threshold</limit-threshold>
                        <idle-timeout>...</idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </any>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet6 / labeled-unicast / prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <labeled-unicast>
                    <prefix-limit>
                      <teardown>
                        <limit-threshold>limit-threshold</limit-threshold>
                        <idle-timeout>...</idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </labeled-unicast>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet6/multicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <multicast>
                    <prefix-limit>
                      <teardown>
                        <limit-threshold>limit-threshold</limit-threshold>
                        <idle-timeout>...</idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </multicast>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet6 / unicast / prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <unicast>
                    <prefix-limit>
                      <teardown>
                        <limit-threshold>limit-threshold</limit-threshold>
                        <idle-timeout>...</idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </unicast>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<teardown> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/l2vpn/unicast/prefix-limit)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <l2vpn>
                  <unicast>
                    <prefix-limit>
                      <teardown>
                        <limit-threshold>limit-threshold</limit-threshold>
                        <idle-timeout>...</idle-timeout>
                      </teardown>
                    </prefix-limit>
                  </unicast>
                </l2vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Clear peer connection on reaching limit.

Contents <idle-timeout>—Timeout before attempting to restart peer.

<limit-threshold>—Percentage of prefix-limit to start warnings.

<telnet> (configuration/system/services)

Usage

```
<configuration>
  <system>
    <services>
      <telnet>
        <connection-limit>connection-limit</connection-limit>
        <rate-limit>rate-limit</rate-limit>
      </telnet>
    </services>
  </system>
</configuration>
```

Description Allow telnet login.

Contents <connection-limit>—Maximum number of allowed connections.

<rate-limit>—Maximum number of connections per minute.

<term> (configuration/firewall/family/inet/filter)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <name>name</name>     <!-- identifier -->
            <from>...</from>
            <then>...</then>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Define a firewall term.

Contents <from>—Define match criteria.

<name>—Term name.

<then>—Action to take if the 'from' condition is matched.

<term> (configuration/firewall/family/inet6/filter)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <name>name</name>     <!-- identifier -->
            <from>...</from>
            <then>...</then>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Define a firewall term.

Contents <from>—Define match criteria.

<name>—Term name.

<then>—Action to take if the 'from' condition is matched.

<term> (configuration/firewall/family/mpls/filter)

Usage

```
<configuration>
  <firewall>
    <family>
      <mpls>
        <filter>
          <term>
            <name>name</name>     <!-- identifier -->
            <from>...</from>
            <then>...</then>
          </term>
        </filter>
      </mpls>
    </family>
  </firewall>
</configuration>
```

Description Define a firewall term.

Contents <from>—Define match criteria.

<name>—Term name.

<then>—Action to take if the 'from' condition is matched.

<term> (configuration/firewall/filter)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <name>name</name>     <!-- identifier -->
        <from>...</from>
        <then>...</then>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Define a firewall term.

Contents <from>—Define match criteria.

<name>—Term name.

<then>—Action to take if the 'from' condition is matched.

<term> (configuration/policy-options/policy-statement)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <name>name</name>     <!-- identifier -->
        <from>...</from>
        <to>...</to>
        <then>...</then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Policy term.

Contents <from>—Conditions to match a route's source.

<name>—No documentation is available yet.

<then>—Actions to take if 'from' and 'to' conditions match.

<to>—Conditions to match a route's destination.

<tftp> (configuration/forwarding-options/helpers)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <tftp>
        <description>description</description>
        <server>...</server>
        <interface>...</interface>
      </tftp>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Incoming TFTP request forwarding configuration.

Contents <description>—Text description of server.

<interface>—Incoming TFTP request forwarding interface configuration.

<server>—Server information.

<then> (configuration / firewall / family / inet / filter / term)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <then>
              <count>count</count>
              <policer>policer</policer>
              <log/>
              <syslog/>
              <sample/>
              <loss-priority>loss-priority-choice</loss-priority>
              <forwarding-class>forwarding-class</forwarding-class>
              <accept/>
              <discard/>
              <next>next-choice</next>
              <routing-instance>routing-instance</routing-instance>
              <ipsec-sa>ipsec-sa</ipsec-sa>
              <reject>...</reject>
            </then>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Action to take if the 'from' condition is matched.

Contents

<accept>—Accept the packet.

<count>—Count the packet in the named counter.

<discard>—Discard the packet.

<forwarding-class>—Classify packet to forwarding class.

<ipsec-sa>—Use specified IPSec security association.

<log>—Log the packet.

<loss-priority>—Classify packet to loss-priority.

- high—Loss priority high.
- low—Loss priority low.

<next>—Continue to next term in a filter.

- term—Continue to next term in a filter.

<policer>—Police the packet using the named policer.

<reject>—Reject the packet.

<routing-instance>—Provide routing instance.

<sample>—Sample the packet.

<syslog>—System log information about the packet.

<then> (configuration/firewall/family/inet6/filter/term)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <then>
              <count>count</count>
              <policer>policer</policer>
              <log/>
              <syslog/>
              <sample/>
              <loss-priority>loss-priority-choice</loss-priority>
              <forwarding-class>forwarding-class</forwarding-class>
              <accept/>
              <discard/>
              <next>next-choice</next>
              <routing-instance>routing-instance</routing-instance>
              <reject>...</reject>
            </then>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Action to take if the 'from' condition is matched.

Contents <accept>—Accept the packet.

<count>—Count the packet in the named counter.

<discard>—Discard the packet.

<forwarding-class>—Classify packet to forwarding class.

<log>—Log the packet.

<loss-priority>—Classify packet to loss-priority.

- high—Loss priority high.
- low—Loss priority low.

<next>—Continue to next term in a filter.

- term—Continue to next term in a filter.

<policer>—Police the packet using the named policer.

<reject>—Reject the packet.

<routing-instance>—Provide routing instance.

<sample>—Sample the packet.

<syslog>—System log information about the packet.

<then> (configuration/firewall/family/mpls/filter/term)

Usage

```
<configuration>
  <firewall>
    <family>
      <mpls>
        <filter>
          <term>
            <then>
              <count>count</count>
              <policer>policer</policer>
              <accept/>
              <discard/>
              <next>next-choice</next>
            </then>
          </term>
        </filter>
      </mpls>
    </family>
  </firewall>
</configuration>
```

Description Action to take if the 'from' condition is matched.

Contents <accept>—Accept the packet.

<count>—Count the packet in the named counter.

<discard>—Discard the packet.

<next>—Continue to next term in a filter.

- term—Continue to next term in a filter.

<policer>—Police the packet using the named policer.

<then> (configuration / firewall / filter / term)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <then>
          <count>count</count>
          <policer>policer</policer>
          <log/>
          <syslog/>
          <sample/>
          <loss-priority>loss-priority-choice</loss-priority>
          <forwarding-class>forwarding-class</forwarding-class>
          <accept/>
          <discard/>
          <next>next-choice</next>
          <routing-instance>routing-instance</routing-instance>
          <ipsec-sa>ipsec-sa</ipsec-sa>
          <reject>...</reject>
        </then>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Action to take if the 'from' condition is matched.

Contents <accept>—Accept the packet.

<count>—Count the packet in the named counter.

<discard>—Discard the packet.

<forwarding-class>—Classify packet to forwarding class.

<ipsec-sa>—Use specified IPSec security association.

<log>—Log the packet.

<loss-priority>—Classify packet to loss-priority.

- high—Loss priority high.
- low—Loss priority low.

<next>—Continue to next term in a filter.

- term—Continue to next term in a filter.

<policer>—Police the packet using the named policer.

<reject>—Reject the packet.

<routing-instance>—Provide routing instance.

<sample>—Sample the packet.

<syslog>—System log information about the packet.

<then> (configuration/firewall/policer)

Usage

```
<configuration>
  <firewall>
    <policer>
      <then>
        <discard/>
        <loss-priority>loss-priority-choice</loss-priority>
        <forwarding-class>forwarding-class</forwarding-class>
      </then>
    </policer>
  </firewall>
</configuration>
```

Description Action to take if the rate limits are exceeded.

Contents <discard>—Discard the packet.

<forwarding-class>—Classify packet to forwarding class.

<loss-priority>—Classify packet to loss-priority.

- high—Loss priority high.
- low—Loss priority low.

<then> (configuration/policy-options/policy-statement)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <then>
        <metric>...</metric>
        <metric2>...</metric2>
        <metric3>...</metric3>
        <metric4>...</metric4>
        <tag>...</tag>
        <tag2>...</tag2>
        <preference>...</preference>
        <preference2>...</preference2>
        <color>...</color>
        <color2>...</color2>
        <local-preference>...</local-preference>
        <origin>origin-choice</origin>
        <community>...</community>
        <damping>damping</damping>
        <as-path-prepend>as-path-prepend</as-path-prepend>
        <as-path-expand>...</as-path-expand>
        <next-hop>...</next-hop>
        <install-nexthop>...</install-nexthop>
        <trace/>
        <next>next-choice</next>
        <external>...</external>
        <load-balance>...</load-balance>
        <class>class</class>
        <destination-class>destination-class</destination-class>
        <source-class>source-class</source-class>
        <forwarding-class>forwarding-class</forwarding-class>
        <cos-next-hop-map>cos-next-hop-map</cos-next-hop-map>
        <default-action>default-action-choice</default-action>
        <accept/>
        <reject/>
      </then>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Actions to take if 'from' and 'to' conditions match.

Contents <accept>—Accept a route.

<as-path-expand>—Prepend AS numbers prior to adding local-as (BGP only).

<as-path-prepend>—Prepend AS numbers to an AS path (BGP only).

<class>—Set class-of-service parameters.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community properties associated with a route.

<cos-next-hop-map>—Set CoS-based next-hop map in forwarding table.

<damping>—Define BGP route flap damping parameters.

<default-action>—Set default policy action.

- accept—Accept a route.
- reject—Reject a route.

<destination-class>—Set destination class in forwarding table.

<external>—External route.

<forwarding-class>—Set source or destination class in forwarding table.

<install-nexthop>—Choose the next hop to be used for forwarding.

<load-balance>—Type of load balancing in forwarding table.

<local-preference>—Local preference associated with a route.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<next>—Skip to next policy or term.

- policy—Skip to next policy filter.
- term—Skip to next term in a policy filter.

<next-hop>—Set the address of the next-hop router.

<origin>—BGP path origin.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<preference>—Preference value.

<preference2>—Preference value 2.

<reject>—Reject a route.

<source-class>—Set source class in forwarding table.

<tag>—Tag string.

<tag2>—Tag string 2.

<trace>—Log matches to a trace file.

<then> (configuration/policy-options/policy-statement/term)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <then>
          <metric>...</metric>
          <metric2>...</metric2>
          <metric3>...</metric3>
          <metric4>...</metric4>
          <tag>...</tag>
          <tag2>...</tag2>
          <preference>...</preference>
          <preference2>...</preference2>
          <color>...</color>
          <color2>...</color2>
          <local-preference>...</local-preference>
          <origin>origin-choice</origin>
          <community>...</community>
          <damping>damping</damping>
          <as-path-prepend>as-path-prepend</as-path-prepend>
          <as-path-expand>...</as-path-expand>
          <next-hop>...</next-hop>
          <install-nexthop>...</install-nexthop>
          <trace/>
          <next>next-choice</next>
          <external>...</external>
          <load-balance>...</load-balance>
          <class>class</class>
          <destination-class>destination-class</destination-class>
          <source-class>source-class</source-class>
          <forwarding-class>forwarding-class</forwarding-class>
          <cos-next-hop-map>cos-next-hop-map</cos-next-hop-map>
          <default-action>default-action-choice</default-action>
          <accept/>
          <reject/>
        </then>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Actions to take if 'from' and 'to' conditions match.

Contents <accept>—Accept a route.

<as-path-expand>—Prepend AS numbers prior to adding local-as (BGP only).

<as-path-prepend>—Prepend AS numbers to an AS path (BGP only).

<class>—Set class-of-service parameters.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community properties associated with a route.

<cos-next-hop-map>—Set CoS-based next-hop map in forwarding table.

<damping>—Define BGP route flap damping parameters.

<default-action>—Set default policy action.

- accept—Accept a route.
- reject—Reject a route.

<destination-class>—Set destination class in forwarding table.

<external>—External route.

<forwarding-class>—Set source or destination class in forwarding table.

<install-nexthop>—Choose the next hop to be used for forwarding.

<load-balance>—Type of load balancing in forwarding table.

<local-preference>—Local preference associated with a route.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<next>—Skip to next policy or term.

- policy—Skip to next policy filter.
- term—Skip to next term in a policy filter.

<next-hop>—Set the address of the next-hop router.

<origin>—BGP path origin.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<preference>—Preference value.

<preference2>—Preference value 2.

<reject>—Reject a route.

<source-class>—Set source class in forwarding table.

<tag>—Tag string.

<tag2>—Tag string 2.

<trace>—Log matches to a trace file.

<to> (configuration/policy-options/policy-statement)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <to>
        <instance>instance</instance>
        <protocol>...</protocol>
        <rib>rib</rib>
        <neighbor>...</neighbor>
        <next-hop>...</next-hop>
        <interface>...</interface>
        <area>area</area>
        <as-path>...</as-path>
        <origin>origin-choice</origin>
        <community>...</community>
        <level>level</level>
        <external>...</external>
        <metric>metric</metric>
        <metric2>metric2</metric2>
        <metric3>metric3</metric3>
        <metric4>metric4</metric4>
        <tag>tag</tag>
        <tag2>tag2</tag2>
        <preference>preference</preference>
        <preference2>preference2</preference2>
        <color>color</color>
        <color2>color2</color2>
        <local-preference>local-preference</local-preference>
        <policy>...</policy>
        <family>family-choice</family>
      </to>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Conditions to match a route's destination.

Contents <area>—OSPF area identifier.

<as-path>—Name of AS path regular expression (BGP only).

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community.

<external>—External route.

<family>—No documentation is available yet.

- inet—IPv4 family.
- inet6—IPv6 family.

<instance>—Routing protocol instance.

<interface>—Interface name or address.

<level>—IS-IS level.

<local-preference>—Local preference associated with a route.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<neighbor>—Neighboring router.

<next-hop>—Next-hop router.

<origin>—BGP origin attribute.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<policy>—Name of policy to evaluate.

<preference>—Preference value.

<preference2>—Preference value 2.

<protocol>—Protocol from which route was learned.

<rib>—Routing table.

<tag>—Tag string.

<tag2>—Tag string 2.

<to> (configuration/policy-options/policy-statement/term)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <to>
          <instance>instance</instance>
          <protocol>...</protocol>
          <rib>rib</rib>
          <neighbor>...</neighbor>
          <next-hop>...</next-hop>
          <interface>...</interface>
          <area>area</area>
          <as-path>...</as-path>
          <origin>origin-choice</origin>
          <community>...</community>
          <level>level</level>
          <external>...</external>
          <metric>metric</metric>
          <metric2>metric2</metric2>
          <metric3>metric3</metric3>
          <metric4>metric4</metric4>
          <tag>tag</tag>
          <tag2>tag2</tag2>
          <preference>preference</preference>
          <preference2>preference2</preference2>
          <color>color</color>
          <color2>color2</color2>
          <local-preference>local-preference</local-preference>
          <policy>...</policy>
          <family>family-choice</family>
        </to>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Conditions to match a route's destination.

Contents <area>—OSPF area identifier.

<as-path>—Name of AS path regular expression (BGP only).

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community.

<external>—External route.

<family>—No documentation is available yet.

- inet—IPv4 family.
- inet6—IPv6 family.

<instance>—Routing protocol instance.

<interface>—Interface name or address.

<level>—IS-IS level.

<local-preference>—Local preference associated with a route.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<neighbor>—Neighboring router.

<next-hop>—Next-hop router.

<origin>—BGP origin attribute.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<policy>—Name of policy to evaluate.

<preference>—Preference value.

<preference2>—Preference value 2.

<protocol>—Protocol from which route was learned.

<rib>—Routing table.

<tag>—Tag string.

<tag2>—Tag string 2.

<trace> (configuration/services/ggsn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <trace>
        <network>...</network>
      </trace>
    </ggsn>
  </services>
</configuration>
```

Description Trace settings.

Contents <network>—Network entities that will be traced.

<tracefilter> (configuration/routing-instances/instance/routing-options/resolution)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <resolution>
          <tracefilter>
            <name>name</name>     <!-- identifier -->
          </tracefilter>
        </resolution>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Filter policy.

Contents <name>—Filter policy.

<tracefilter> (configuration/routing-options/resolution)

Usage

```
<configuration>
  <routing-options>
    <resolution>
      <tracefilter>
        <name>name</name>     <!-- identifier -->
      </tracefilter>
    </resolution>
  </routing-options>
</configuration>
```

Description Filter policy.

Contents <name>—Filter policy.

<traceoptions> (configuration/access)

Usage

```
<configuration>
  <access>
    <traceoptions>
      <flag>...</flag>
    </traceoptions>
  </access>
</configuration>
```

Description Network access daemon tracing options.

Contents <flag>—Tracing parameters.

<traceoptions> (configuration/class-of-service)

Usage

```
<configuration>
  <class-of-service>
    <traceoptions>
      <flag>...</flag>
    </traceoptions>
  </class-of-service>
</configuration>
```

Description Trace options for class-of-service process.

Contents <flag>—Tracing parameters.

<traceoptions> (configuration/forwarding-options/helpers)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <traceoptions>
        <file>...</file>
        <level>level-choice</level>
        <flag>...</flag>
      </traceoptions>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Trace options for helper.

Contents <file>—Trace file options.

<flag>—Area of UDP forwarding helper process on which to enable debugging output.

<level>—Level of debugging output.

- all—Match all levels.
- error—Match error conditions.
- info—Match informational messages.

- notice—Match conditions that should be handled specially.
- verbose—Match verbose messages.
- warning—Match warning messages.

<traceoptions> (configuration / forwarding-options / sampling)

Usage

```
<configuration>
  <forwarding-options>
    <sampling>
      <traceoptions>
        <file>...</file>
      </traceoptions>
    </sampling>
  </forwarding-options>
</configuration>
```

Description Traffic sampling trace options.

Contents <file>—Trace file information.

<traceoptions> (configuration / interfaces)

Usage

```
<configuration>
  <interfaces>
    <traceoptions>
      <file>...</file>
      <flag>...</flag>
    </traceoptions>
  </interfaces>
</configuration>
```

Description Interface trace options.

Contents <file>—Trace file information.

<flag>—Tracing parameters.

<traceoptions> (configuration / interfaces / interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <traceoptions>
        <flag>...</flag>
      </traceoptions>
    </interface>
  </interfaces>
</configuration>
```

Description Interface trace options.

Contents <flag>—Tracing parameters.

<traceoptions> (configuration/protocols/bgp)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </bgp>
  </protocols>
</configuration>
```

Description Trace options.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/bgp/group)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <traceoptions>
          <file>...</file>
          <flag>...</flag>
        </traceoptions>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Trace options.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/bgp/group/neighbor)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <traceoptions>
            <file>...</file>
            <flag>...</flag>
          </traceoptions>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Trace options.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/dvmrp)

Usage

```
<configuration>
  <protocols>
    <dvmrp>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </dvmrp>
  </protocols>
</configuration>
```

Description Trace options for DVMRP.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/igmp)

Usage

```
<configuration>
  <protocols>
    <igmp>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </igmp>
  </protocols>
</configuration>
```

Description Trace options for IGMP.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/isis)

Usage

```
<configuration>
  <protocols>
    <isis>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </isis>
  </protocols>
</configuration>
```

Description Trace options for IS-IS.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/l2circuit)

Usage

```
<configuration>
  <protocols>
    <l2circuit>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </l2circuit>
  </protocols>
</configuration>
```

Description Trace options for Layer 2 circuits.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/ldp)

Usage

```
<configuration>
  <protocols>
    <ldp>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </ldp>
  </protocols>
</configuration>
```

Description Trace options for LDP.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/link-management)

Usage

```
<configuration>
  <protocols>
    <link-management>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </link-management>
  </protocols>
</configuration>
```

Description LMP trace options.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/mld)

Usage

```
<configuration>
  <protocols>
    <mld>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </mld>
  </protocols>
</configuration>
```

Description Trace options for MLD.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/mpls)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </mpls>
  </protocols>
</configuration>
```

Description Trace options for MPLS.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/mpls/label-switched-path)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <traceoptions>
          <file>...</file>
          <flag>...</flag>
        </traceoptions>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Trace options for MPLS label-switched path.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/msdp)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </msdp>
  </protocols>
</configuration>
```

Description Trace options for MSDP.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/msdp/group)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <group>
        <traceoptions>
          <file>...</file>
          <flag>...</flag>
        </traceoptions>
      </group>
    </msdp>
  </protocols>
</configuration>
```

Description Trace options for MSDP.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/msdp/group/peer)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <group>
        <peer>
          <traceoptions>
            <file>...</file>
            <flag>...</flag>
          </traceoptions>
        </peer>
      </group>
    </msdp>
  </protocols>
</configuration>
```

Description Trace options for MSDP.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/msdp/peer)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <peer>
        <traceoptions>
          <file>...</file>
          <flag>...</flag>
        </traceoptions>
      </peer>
    </msdp>
  </protocols>
</configuration>
```

Description Trace options for MSDP.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/ospf)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </ospf>
  </protocols>
</configuration>
```

Description Trace options for OSPF.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/ospf3)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </ospf3>
  </protocols>
</configuration>
```

Description Trace options for OSPF.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/pim)

Usage

```
<configuration>
  <protocols>
    <pim>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </pim>
  </protocols>
</configuration>
```

Description Trace options for PIM.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/rip)

Usage

```
<configuration>
  <protocols>
    <rip>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </rip>
  </protocols>
</configuration>
```

Description Trace options for RIP.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/ripng)

Usage

```
<configuration>
  <protocols>
    <ripng>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </ripng>
  </protocols>
</configuration>
```

Description Trace options for RIPng.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/router-advertisement)

Usage

```
<configuration>
  <protocols>
    <router-advertisement>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </router-advertisement>
  </protocols>
</configuration>
```

Description Trace options for router advertisement.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/router-discovery)

Usage

```
<configuration>
  <protocols>
    <router-discovery>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </router-discovery>
  </protocols>
</configuration>
```

Description Trace options for router discovery.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/rsvp)

Usage

```
<configuration>
  <protocols>
    <rsvp>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </rsvp>
  </protocols>
</configuration>
```

Description Trace options for RSVP.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/protocols/vrrp)

Usage

```
<configuration>
  <protocols>
    <vrrp>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </vrrp>
  </protocols>
</configuration>
```

Description Trace options for VRRP.

Contents <file>—Trace file information.

<flag>—Tracing parameters.

<traceoptions> (configuration/routing-instances/instance/protocols/bgp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <traceoptions>
            <file>...</file>
            <flag>...</flag>
          </traceoptions>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace options.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/routing-instances/instance/protocols/bgp/group)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <traceoptions>
              <file>...</file>
              <flag>...</flag>
            </traceoptions>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace options.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/routing-instances/instance/protocols/bgp/group/neighbor)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <traceoptions>
                <file>...</file>
                <flag>...</flag>
              </traceoptions>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace options.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration / routing-instances / instance / protocols / isis)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <isis>
          <traceoptions>
            <file>...</file>
            <flag>...</flag>
          </traceoptions>
        </isis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace options for IS-IS.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration / routing-instances / instance / protocols / l2vpn)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <l2vpn>
          <traceoptions>
            <file>...</file>
            <flag>...</flag>
          </traceoptions>
        </l2vpn>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace options for Layer 2 VPN.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration / routing-instances / instance / protocols / ldp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <traceoptions>
            <file>...</file>
            <flag>...</flag>
          </traceoptions>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace options for LDP.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration / routing-instances / instance / protocols / ospf)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <traceoptions>
            <file>...</file>
            <flag>...</flag>
          </traceoptions>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace options for OSPF.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration / routing-instances / instance / protocols / pim)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <traceoptions>
            <file>...</file>
            <flag>...</flag>
          </traceoptions>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace options for PIM.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration / routing-instances / instance / protocols / rip)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <traceoptions>
            <file>...</file>
            <flag>...</flag>
          </traceoptions>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace options for RIP.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/routing-instances/instance/protocols/router-discovery)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <router-discovery>
          <traceoptions>
            <file>...</file>
            <flag>...</flag>
          </traceoptions>
        </router-discovery>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace options for router discovery.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/routing-instances/instance/routing-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <traceoptions>
          <file>...</file>
          <flag>...</flag>
        </traceoptions>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Global routing protocol trace options.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration / routing-instances / instance / routing-options / auto-export)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <auto-export>
          <traceoptions>
            <file>...</file>
            <flag>...</flag>
          </traceoptions>
        </auto-export>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace options.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration / routing-instances / instance / routing-options / resolution)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <resolution>
          <traceoptions>
            <file>...</file>
            <flag>...</flag>
          </traceoptions>
        </resolution>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace options.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/routing-options)

Usage

```
<configuration>
  <routing-options>
    <traceoptions>
      <file>...</file>
      <flag>...</flag>
    </traceoptions>
  </routing-options>
</configuration>
```

Description Global routing protocol trace options.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/routing-options/auto-export)

Usage

```
<configuration>
  <routing-options>
    <auto-export>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </auto-export>
  </routing-options>
</configuration>
```

Description Trace options.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/routing-options/resolution)

Usage

```
<configuration>
  <routing-options>
    <resolution>
      <traceoptions>
        <file>...</file>
        <flag>...</flag>
      </traceoptions>
    </resolution>
  </routing-options>
</configuration>
```

Description Trace options.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/security)

Usage

```
<configuration>
  <security>
    <traceoptions>
      <file>...</file>
      <flag>...</flag>
    </traceoptions>
  </security>
</configuration>
```

Description Trace options for security.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<traceoptions> (configuration/services/logging)

Usage

```
<configuration>
  <services>
    <logging>
      <traceoptions>
        <flag>...</flag>
      </traceoptions>
    </logging>
  </services>
</configuration>
```

Description Fsad trace options.

Contents <flag>—Tracing parameters.

<traceoptions> (configuration/snmp)

Usage

```
<configuration>
  <snmp>
    <traceoptions>
      <file>...</file>
      <flag>...</flag>
    </traceoptions>
  </snmp>
</configuration>
```

Description Trace options for SNMP.

Contents <file>—Trace file options.

<flag>—Tracing parameters.

<track> (configuration / interfaces / interface / unit / family / inet / address / vrrp-group)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <address>
              <vrrp-group>
                <track>
                  <interface>...</interface>
                </track>
              </vrrp-group>
            </address>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Interfaces to track for the VRRP group.

Contents <interface>—Interface to track in this VRRP group.

<traffic-class> (configuration / firewall / family / inet6 / filter / term / from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <traffic-class>
                <name>name</name>     <!-- identifier -->
              </traffic-class>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Match DiffServ code point.

Contents <name>—No documentation is available yet.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.

- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- ef—Expedited forwarding.
- name—Range of values.

<traffic-class-except> (configuration/firewall/family/inet6/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <traffic-class-except>
                <name>name</name>     <!-- identifier -->
              </traffic-class-except>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Do not match DiffServ code point.

Contents <name>—No documentation is available yet.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.

- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- ef—Expedited forwarding.
- name—Range of values.

<traffic-engineering> (configuration/protocols/isis)

Usage

```
<configuration>
  <protocols>
    <isis>
      <traffic-engineering>
        <disable/>
        <shortcuts/>
      </traffic-engineering>
    </isis>
  </protocols>
</configuration>
```

Description Configure traffic engineering attributes.

Contents <disable>—Disable traffic engineering.

<shortcuts>—Use label-switched paths as next hops, if possible.

<traffic-engineering> (configuration/protocols/ospf)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <traffic-engineering>
        <no-topology/>
        <shortcuts/>
      </traffic-engineering>
    </ospf>
  </protocols>
</configuration>
```

Description Configure traffic engineering attributes.

Contents <no-topology>—Disable dissemination of TE link-state topology information.

<shortcuts>—Use label-switched paths as next hops, if possible.

<traffic-engineering> (configuration/protocols/ospf3)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <traffic-engineering>
        <no-topology/>
        <shortcuts/>
      </traffic-engineering>
    </ospf3>
  </protocols>
</configuration>
```

Description Configure traffic engineering attributes.

Contents <no-topology>—Disable dissemination of TE link-state topology information.

<shortcuts>—Use label-switched paths as next hops, if possible.

<traffic-engineering> (configuration/routing-instances/instance/protocols/isis)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <isis>
          <traffic-engineering>
            <disable/>
            <shortcuts/>
          </traffic-engineering>
        </isis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure traffic engineering attributes.

Contents <disable>—Disable traffic engineering.

<shortcuts>—Use label-switched paths as next hops, if possible.

<traffic-engineering> (configuration/routing-instances/instance/protocols/ospf)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <traffic-engineering>
            <no-topology/>
            <shortcuts/>
          </traffic-engineering>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure traffic engineering attributes.

Contents <no-topology>—Disable dissemination of TE link-state topology information.

<shortcuts>—Use label-switched paths as next hops, if possible.

<traffic-statistics> (configuration/protocols/ldp)

Usage

```
<configuration>
  <protocols>
    <ldp>
      <traffic-statistics>
        <file>...</file>
        <interval>interval</interval>
        <no-penultimate-hop/>
      </traffic-statistics>
    </ldp>
  </protocols>
</configuration>
```

Description Collect statistics for LDP label-switched paths.

Contents <file>—Statistics file options.

<interval>—Time to collect statistics (seconds).

<no-penultimate-hop>—No penultimate hop statistics collection.

<traffic-statistics> (configuration / routing-instances / instance / protocols / ldp)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <traffic-statistics>
            <file>...</file>
            <interval>interval</interval>
            <no-penultimate-hop/>
          </traffic-statistics>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Collect statistics for LDP label-switched paths.

Contents <file>—Statistics file options.

<interval>—Time to collect statistics (seconds).

<no-penultimate-hop>—No penultimate hop statistics collection.

<transmit-bucket> (configuration / interfaces / interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <transmit-bucket>
        <overflow>overflow-choice</overflow>
        <rate>rate</rate>
        <threshold>threshold</threshold>
      </transmit-bucket>
    </interface>
  </interfaces>
</configuration>
```

Description Set transmit bucket parameters.

Contents <overflow>—Overflow behavior.

- discard—Discard overflow packets.

<rate>—Bucket rate.

<threshold>—Bucket threshold.

<transmit-rate> (configuration/class-of-service/schedulers)

Usage

```
<configuration>
  <class-of-service>
    <schedulers>
      <transmit-rate>
        <rate>bits per second</rate>
        <percent>percent</percent>
        <remainder/>
        <exact/>
      </transmit-rate>
    </schedulers>
  </class-of-service>
</configuration>
```

Description Transmit rate.

Contents <exact>—Enforce exact transmit rate.

<percent>—Transmit rate as percentage.

<rate>—Transmit rate as rate.

<remainder>—Remainder available.

<trap-group> (configuration/snmp)

Usage

```
<configuration>
  <snmp>
    <trap-group>
      <name>name</name>     <!-- identifier -->
      <version>version-choice</version>
      <destination-port>destination-port</destination-port>
      <categories>...</categories>
      <targets>...</targets>
    </trap-group>
  </snmp>
</configuration>
```

Description Configure traps and notifications.

Contents <categories>—Trap categories.

<destination-port>—SNMP trap receiver port number.

<name>—Trap group name.

<targets>—Targets for trap messages.

<version>—SNMP version.

- all—Send SNMPv1 and SNMPv2 traps.
- v1—Send SNMPv1 traps.
- v2—Send SNMPv2 traps.

<trap-options> (configuration/snmp)

Usage

```
<configuration>
  <snmp>
    <trap-options>
      <source-address>source-address-choice</source-address>
      <agent-address>agent-address-choice</agent-address>
    </trap-options>
  </snmp>
</configuration>
```

Description SNMP trap options.

Contents <agent-address>—Agent address for v1 trap PDUs.

- outgoing-interface—Use address on outgoing interface.

<source-address>—Source address for trap PDUs.

- lo0—Use lowest address on loopback interface.

<tunnel> (configuration/interfaces/interface/unit)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <tunnel>
          <source>source</source>     <!-- mandatory -->
          <destination>destination</destination>     <!-- mandatory -->
          <ttl>ttl</ttl>
          <routing-instance>...</routing-instance>
        </tunnel>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Tunnel parameters.

Contents <destination>—Tunnel destination.

<routing-instance>—Routing instance to which tunnel ends belong.

<source>—Tunnel source.

<ttl>—Time to live.

<unicast> (configuration/protocols/bgp/family/inet)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <unicast>
            <prefix-limit>...</prefix-limit>
            <rib-group>...</rib-group>
          </unicast>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Include unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration/protocols/bgp/family/inet-vpn)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet-vpn>
          <unicast>
            <prefix-limit>...</prefix-limit>
            <rib-group>...</rib-group>
          </unicast>
        </inet-vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Include unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration / protocols / bgp / family / inet6)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <unicast>
            <prefix-limit>...</prefix-limit>
            <rib-group>...</rib-group>
          </unicast>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Include unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration / protocols / bgp / family / l2vpn)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <l2vpn>
          <unicast>
            <prefix-limit>...</prefix-limit>
            <rib-group>...</rib-group>
          </unicast>
        </l2vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Include Layer 2 VPN NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration/protocols/bgp/group/family/inet)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <unicast>
              <prefix-limit>...</prefix-limit>
              <rib-group>...</rib-group>
            </unicast>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration/protocols/bgp/group/family/inet-vpn)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet-vpn>
            <unicast>
              <prefix-limit>...</prefix-limit>
              <rib-group>...</rib-group>
            </unicast>
          </inet-vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration/protocols/bgp/group/family/inet6)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <unicast>
              <prefix-limit>...</prefix-limit>
              <rib-group>...</rib-group>
            </unicast>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration/protocols/bgp/group/family/l2vpn)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <l2vpn>
            <unicast>
              <prefix-limit>...</prefix-limit>
              <rib-group>...</rib-group>
            </unicast>
          </l2vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include Layer 2 VPN NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration/protocols/bgp/group/neighbor/family/inet)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <unicast>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </unicast>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration/protocols/bgp/group/neighbor/family/inet-vpn)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet-vpn>
              <unicast>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </unicast>
            </inet-vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration/protocols/bgp/group/neighbor/family/inet6)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <unicast>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </unicast>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration/protocols/bgp/group/neighbor/family/l2vpn)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <l2vpn>
              <unicast>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </unicast>
            </l2vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include Layer 2 VPN NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration / routing-instances / instance / protocols / bgp / family / inet)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <unicast>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </unicast>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration / routing-instances / instance / protocols / bgp / family / inet-vpn)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet-vpn>
              <unicast>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </unicast>
            </inet-vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration/routing-instances/instance/protocols/bgp/family/inet6)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <unicast>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </unicast>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration/routing-instances/instance/protocols/bgp/family/l2vpn)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <l2vpn>
              <unicast>
                <prefix-limit>...</prefix-limit>
                <rib-group>...</rib-group>
              </unicast>
            </l2vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include Layer 2 VPN NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration/routing-instances/instance/protocols/bgp/group/family/inet)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <unicast>
                  <prefix-limit>...</prefix-limit>
                  <rib-group>...</rib-group>
                </unicast>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration/routing-instances/instance/protocols/bgp/group/family/inet-vpn)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet-vpn>
                <unicast>
                  <prefix-limit>...</prefix-limit>
                  <rib-group>...</rib-group>
                </unicast>
              </inet-vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration/routing-instances/instance/protocols/bgp/group/family/inet6)

Usage

```
<configuration>
   <routing-instances>
      <instance>
         <protocols>
            <bgp>
               <group>
                  <family>
                     <inet6>
                        <unicast>
                           <prefix-limit>...</prefix-limit>
                           <rib-group>...</rib-group>
                        </unicast>
                     </inet6>
                  </family>
               </group>
            </bgp>
         </protocols>
      </instance>
   </routing-instances>
</configuration>
```

Description Include unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration/routing-instances/instance/protocols/bgp/group/family/l2vpn)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <l2vpn>
                <unicast>
                  <prefix-limit>...</prefix-limit>
                  <rib-group>...</rib-group>
                </unicast>
              </l2vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include Layer 2 VPN NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <unicast>
                    <prefix-limit>...</prefix-limit>
                    <rib-group>...</rib-group>
                  </unicast>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet-vpn)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet-vpn>
                  <unicast>
                    <prefix-limit>...</prefix-limit>
                    <rib-group>...</rib-group>
                  </unicast>
                </inet-vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration / routing-instances / instance / protocols / bgp / group / neighbor / family / inet6)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <unicast>
                    <prefix-limit>...</prefix-limit>
                    <rib-group>...</rib-group>
                  </unicast>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include unicast NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/l2vpn)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <l2vpn>
                  <unicast>
                    <prefix-limit>...</prefix-limit>
                    <rib-group>...</rib-group>
                  </unicast>
                </l2vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include Layer 2 VPN NLRI.

Contents <prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<unicast> (configuration/routing-instances/instance/routing-options/auto-export/family/inet)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <auto-export>
          <family>
            <inet>
              <unicast>
                <disable/>
                <rib-group>rib-group</rib-group>
              </unicast>
            </inet>
          </family>
        </auto-export>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Unicast routing information.

Contents <disable>—Disable instance export.

<rib-group>—Auxiliary rib-group of additional RIBs to consider.

<unicast> (configuration/routing-options/auto-export/family/inet)

Usage

```
<configuration>
  <routing-options>
    <auto-export>
      <family>
        <inet>
          <unicast>
            <disable/>
            <rib-group>rib-group</rib-group>
          </unicast>
        </inet>
      </family>
    </auto-export>
  </routing-options>
</configuration>
```

Description Unicast routing information.

Contents <disable>—Disable instance export.

<rib-group>—Auxiliary rib-group of additional RIBs to consider.

<unit> (configuration/class-of-service/interfaces)

Usage

```
<configuration>
  <class-of-service>
    <interfaces>
      <unit>
        <name>name</name>     <!-- identifier -->
        <forwarding-class>forwarding-class</forwarding-class>
        <scheduler-map>scheduler-map</scheduler-map>
        <input-policer>...</input-policer>
        <output-shaper>...</output-shaper>
        <classifiers>...</classifiers>
        <rewrite-rules>...</rewrite-rules>
      </unit>
    </interfaces>
  </class-of-service>
</configuration>
```

Description Logical interface unit or wildcard.

Contents <classifiers>—Classifiers applied to incoming packets.

<forwarding-class>—Forwarding class assigned to incoming packets.

<input-policer>—Input policer applied to this logical interface.

<name>—Logical unit number.

<output-shaper>—Output shaper applied to this logical interface.

<rewrite-rules>—Rewrite rules applied to outgoing packets.

<scheduler-map>—Scheduler map applied to this logical interface.

<unit> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <name>name</name>     <!-- identifier -->
        <disable/>
        <passive-monitor-mode/>
        <description>description</description>
        <encapsulation>encapsulation-choice</encapsulation>
        <point-to-point/>
        <multipoint/>
        <bandwidth>bandwidth</bandwidth>
        <traps/>
        <vlan-id>vlan-id</vlan-id>
        <receive-lsp>receive-lsp</receive-lsp>
        <transmit-lsp>transmit-lsp</transmit-lsp>
        <dlci>dlci</dlci>
        <multicast-dlci>multicast-dlci</multicast-dlci>
        <vci>vci</vci>
        <allow-any-vci/>
        <vpi>vpi</vpi>
        <multicast-vci>multicast-vci</multicast-vci>
        <shaping>...</shaping>
        <oam-period>...</oam-period>
        <oam-liveness>...</oam-liveness>
        <inverse-arp/>
        <transmit-weight>transmit-weight</transmit-weight>
        <epd-threshold>cells</epd-threshold>
        <mrru>bytes</mrru>
        <short-sequence/>
        <fragment-threshold>bytes</fragment-threshold>
        <drop-timeout>milliseconds</drop-timeout>
        <minimum-links>minimum-links</minimum-links>
        <rtp-express/>
        <rtp-port-low>rtp-port-low</rtp-port-low>
        <rtp-port-high>rtp-port-high</rtp-port-high>
        <accounting-profile>accounting-profile</accounting-profile>
        <tunnel>...</tunnel>
        <family>...</family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Logical interface.

Contents <accounting-profile>—Accounting profile name.

<allow-any-vci>—Allow all VCIs to open in atm-ccc-cell-relay mode.

<bandwidth>—Logical unit bandwidth (informational only).

<description>—Text description of the interface.

<disable>—Disable this logical interface.

<dlci>—Frame Relay link control identifier.

<drop-timeout>—Drop timeout.

<encapsulation>—Logical link-layer encapsulation.

- atm-ccc-cell-relay—ATM Cell Relay for CCC.
- atm-ccc-vc-mux—ATM VC for CCC.
- atm-cisco-nlpid—Cisco-compatible ATM NLPID encapsulation.
- atm-nlpid—ATM NLPID encapsulation.
- atm-snap—ATM LLC/SNAP encapsulation.
- atm-tcc-snap—ATM LLC/SNAP for translational cross connection.
- atm-tcc-vc-mux—ATM VC for translational cross connection.
- atm-vc-mux—ATM VC multiplexing.
- dix—Ethernet DIXv2 (RFC 894).
- ether-over-atm-llc—Ethernet over ATM (LLC/SNAP) encapsulation.
- frame-relay-ccc—Frame Relay DLCI for CCC.
- frame-relay-tcc—Frame Relay DLCI for translational cross connection.
- multilink-framerelay—Multilink Frame Relay (FRF.15).
- multilink-ppp—Multilink PPP.
- vlan-ccc—802.1Q tagging for a cross connection.

<epd-threshold>—ATM2 early packet discard high water mark.

<family>—Protocol family.

<fragment-threshold>—Fragmentation threshold in 64-byte steps.

<inverse-arp>—Enable Inverse ARP.

<minimum-links>—Minimum number of links to sustain the bundle.

<mrru>—Maximum received reconstructed unit.

<multicast-dlci>—Frame Relay link control identifier for multicast packets.

<multicast-vci>—ATM virtual circuit identifier for multicast packets.

<multipoint>—Multipoint connection.

<name>—Logical unit number.

<oam-liveness>—OAM virtual circuit liveness parameters.

<oam-period>—OAM cell period.

<passive-monitor-mode>—Interface will be used to tap packets from another router.

<point-to-point>—Point-to-point connection.

<receive-lsp>—Name of incoming label-switched path.

<rtp-express>—Express RTP packets with configured UDP ports.

<rtp-port-high>—Highest UDP port of Express RTP packets.

<rtp-port-low>—Lowest UDP port of Express RTP packets.

<shaping>—Virtual circuit traffic-shaping options.

<short-sequence>—Short sequence number header format (MLPPP only).

<transmit-lsp>—Name of outgoing label-switched path.

<transmit-weight>—ATM2 Transmit weight for VC under VP tunnel.

<traps>—Enable SNMP notifications on state changes.

<tunnel>—Tunnel parameters.

<vci>—ATM point-to-point virtual circuit identifier ([vpi.]vci).

<vlan-id>—Virtual LAN identifier value for 802.1Q VLAN tags.

<vpi>—Allow all VCIs in this VPI to open in atm-ccc-cell-relay mode.

<user> (configuration/snmp/access)

Usage

```
<configuration>
  <snmp>
    <access>
      <user>
        <name>name</name>     <!-- identifier -->
        <authentication-type>authentication-type-choice</authentication-type>
        <authentication-password>authentication-password</authentication-password>
        <privacy-type>privacy-type-choice</privacy-type>
        <privacy-password>privacy-password</privacy-password>
        <clients>...</clients>
      </user>
    </access>
  </snmp>
</configuration>
```

Description SNMPv3 USM user information.

Contents <authentication-password>—SNMPv3 USM authentication password.

<authentication-type>—SNMPv3 USM authentication type.

- md5—MD5 hash algorithm.
- none—No authentication.
- sha—SHA hash algorithm.

<clients>—List of source address prefix ranges to accept.

<name>—SNMPv3 USM username.

<privacy-password>—SNMPv3 USM privacy password.

<privacy-type>—SNMPv3 USM privacy type.

- des—DES algorithm.
- none—No privacy.

<user> (configuration/snmp/access/group)

Usage

```
<configuration>
  <snmp>
    <access>
      <group>
        <user>
          <name>name</name>     <!-- identifier -->
        </user>
      </group>
    </access>
  </snmp>
</configuration>
```

Description SNMPv3 USM username.

Contents <name>—SNMPv3 USM username.

<user> (configuration/system/login)

Usage

```
<configuration>
  <system>
    <login>
      <user>
        <name>name</name>     <!-- identifier -->
        <full-name>full-name</full-name>
        <uid>uid</uid>
        <class>class</class>     <!-- mandatory -->
        <authentication>...</authentication>
      </user>
    </login>
  </system>
</configuration>
```

Description Username.

Contents <authentication>—Authentication method.

<class>—Login class.

<full-name>—Full name.

<name>—Username (login).

<uid>—User identifier (uid).

<user> (configuration/system/syslog)

Usage

```
<configuration>
  <system>
    <syslog>
      <user>
        <name>name</name>     <!-- identifier -->
        <contents>...</contents>
      </user>
    </syslog>
  </system>
</configuration>
```

Description Notify a user of the event.

Contents <contents>—No documentation is available yet.

<name>—Name of user to notify.

<vbr> (configuration/interfaces/interface/atm-options/vpi/shaping)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <atm-options>
        <vpi>
          <shaping>
            <vbr>
              <peak>peak</peak>     <!-- mandatory -->
              <sustained>sustained</sustained>     <!-- mandatory -->
              <burst>burst</burst>     <!-- mandatory -->
            </vbr>
          </shaping>
        </vpi>
      </atm-options>
    </interface>
  </interfaces>
</configuration>
```

Description Variable bandwidth utilization.

Contents <burst>—Burst size.

<peak>—Peak rate.

<sustained>—Sustained rate.

<vbr> (configuration/interfaces/interface/unit/family/inet/address/multipoint-destination/shaping)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <address>
              <multipoint-destination>
                <shaping>
                  <vbr>
                    <peak>peak</peak>     <!-- mandatory -->
                    <sustained>sustained</sustained>     <!-- mandatory -->
                    <burst>burst</burst>     <!-- mandatory -->
                  </vbr>
                </shaping>
              </multipoint-destination>
            </address>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Variable bandwidth utilization.

Contents <burst>—Burst size.

<peak>—Peak rate.

<sustained>—Sustained rate.

<vbr> (configuration/interfaces/interface/unit/shaping)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <shaping>
          <vbr>
            <peak>peak</peak>     <!-- mandatory -->
            <sustained>sustained</sustained>     <!-- mandatory -->
            <burst>burst</burst>     <!-- mandatory -->
          </vbr>
        </shaping>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Variable bandwidth utilization.

Contents <burst>—Burst size.

<peak>—Peak rate.

<sustained>—Sustained rate.

<version-list> (configuration/services/ggsn/gtp)

Usage

```
<configuration>
  <services>
    <ggsn>
      <gtp>
        <version-list>
          <name>name</name>     <!-- identifier -->
        </version-list>
      </gtp>
    </ggsn>
  </services>
</configuration>
```

Description GTP version.

Contents <name>—GTP version.

- 97—Use GTP version 97.
- 98—Use GTP version 98.
- 99—Use GTP version 99.

<view> (configuration/snmp)

Usage

```
<configuration>
  <snmp>
    <view>
      <name>name</name>     <!-- identifier -->
      <oid>...</oid>
    </view>
  </snmp>
</configuration>
```

Description Define MIB views.

Contents <name>—MIB view name.

<oid>—OID include/exclude list.

<virtual-address> (configuration/interfaces/interface/unit/family/inet/address/vrrp-group)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <address>
              <vrrp-group>
                <virtual-address>
                  <name>name</name>     <!-- identifier -->
                </virtual-address>
              </vrrp-group>
            </address>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Virtual addresses.

Contents <name>—Virtual addresses.

<virtual-link> (configuration/protocols/ospf/area)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <area>
        <virtual-link>
          <neighbor-id>neighbor-id</neighbor-id>     <!-- identifier -->
          <transit-area>transit-area</transit-area>     <!-- identifier -->
          <disable/>
          <retransmit-interval>retransmit-interval</retransmit-interval>
          <transit-delay>transit-delay</transit-delay>
          <hello-interval>hello-interval</hello-interval>
          <dead-interval>dead-interval</dead-interval>
          <authentication-key>...</authentication-key>
        </virtual-link>
      </area>
    </ospf>
  </protocols>
</configuration>
```

Description Configure virtual links.

Contents

<authentication-key>—Authentication key.

<dead-interval>—Dead interval (seconds).

<disable>—Disable this virtual link.

<hello-interval>—Hello interval (seconds).

<neighbor-id>—Router ID of a virtual neighbor.

<retransmit-interval>—Retransmission interval (seconds).

<transit-area>—Transit area in common with virtual neighbor.

<transit-delay>—Transit delay (seconds).

<virtual-link> (configuration/protocols/ospf3/area)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <area>
        <virtual-link>
          <neighbor-id>neighbor-id</neighbor-id>     <!-- identifier -->
          <transit-area>transit-area</transit-area>     <!-- identifier -->
          <disable/>
          <retransmit-interval>retransmit-interval</retransmit-interval>
          <transit-delay>transit-delay</transit-delay>
          <hello-interval>hello-interval</hello-interval>
          <dead-interval>dead-interval</dead-interval>
          <authentication-key>...</authentication-key>
        </virtual-link>
      </area>
    </ospf3>
  </protocols>
</configuration>
```

Description Configure virtual links.

Contents

<authentication-key>—Authentication key.

<dead-interval>—Dead interval (seconds).

<disable>—Disable this virtual link.

<hello-interval>—Hello interval (seconds).

<neighbor-id>—Router ID of a virtual neighbor.

<retransmit-interval>—Retransmission interval (seconds).

<transit-area>—Transit area in common with virtual neighbor.

<transit-delay>—Transit delay (seconds).

<virtual-link> (configuration/routing-instances/instance/protocols/ospf/area)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <area>
            <virtual-link>
              <neighbor-id>neighbor-id</neighbor-id>     <!-- identifier -->
              <transit-area>transit-area</transit-area>     <!-- identifier -->
              <disable/>
              <retransmit-interval>retransmit-interval</retransmit-interval>
              <transit-delay>transit-delay</transit-delay>
              <hello-interval>hello-interval</hello-interval>
              <dead-interval>dead-interval</dead-interval>
              <authentication-key>...</authentication-key>
            </virtual-link>
          </area>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure virtual links.

Contents

<authentication-key>—Authentication key.

<dead-interval>—Dead interval (seconds).

<disable>—Disable this virtual link.

<hello-interval>—Hello interval (seconds).

<neighbor-id>—Router ID of a virtual neighbor.

<retransmit-interval>—Retransmission interval (seconds).

<transit-area>—Transit area in common with virtual neighbor.

<transit-delay>—Transit delay (seconds).

<vpi> (configuration/interfaces/interface/atm-options)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <atm-options>
        <vpi>
          <name>name</name>     <!-- identifier -->
          <maximum-vcs>maximum-vcs</maximum-vcs>
          <shaping>...</shaping>
          <oam-period>...</oam-period>
          <oam-liveness>...</oam-liveness>
        </vpi>
      </atm-options>
    </interface>
  </interfaces>
</configuration>
```

Description Define a virtual path.

Contents <maximum-vcs>—Maximum number of virtual circuits on this VP.

<name>—Virtual path index.

<oam-liveness>—F4 OAM virtual path liveness parameters.

<oam-period>—F4 OAM cell period.

<shaping>—Virtual path traffic-shaping options.

<vpi> (configuration/interfaces/interface/atm-options/promiscuous-mode)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <atm-options>
        <promiscuous-mode>
          <vpi>
            <name>name</name>     <!-- identifier -->
          </vpi>
        </promiscuous-mode>
      </atm-options>
    </interface>
  </interfaces>
</configuration>
```

Description Open this VPI in promiscuous mode.

Contents <name>—Virtual path index.

<vrf-export> (configuration/routing-instances/instance)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <vrf-export>
        <name>name</name>     <!-- identifier -->
      </vrf-export>
    </instance>
  </routing-instances>
</configuration>
```

Description Export policy for VRF instance RIBs.

Contents <name>—Export policy for VRF instance RIBs.

<vrf-import> (configuration/routing-instances/instance)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <vrf-import>
        <name>name</name>     <!-- identifier -->
      </vrf-import>
    </instance>
  </routing-instances>
</configuration>
```

Description Import policy for VRF instance RIBs.

Contents <name>—Import policy for VRF instance RIBs.

<vrf-target> (configuration/routing-instances/instance)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <vrf-target>
        <community>community</community>
        <import>import</import>
        <export>export</export>
      </vrf-target>
    </instance>
  </routing-instances>
</configuration>
```

Description No documentation is available yet.

Contents <community>—Target community to use in import and export.

<export>—Target community to use when marking routes on export.

<import>—Target community to use when filtering on import.

<vrrp> (configuration/protocols)

Usage

```
<configuration>
  <protocols>
    <vrrp>
      <traceoptions>...</traceoptions>
    </vrrp>
  </protocols>
</configuration>
```

Description VRRP options.

Contents <traceoptions>—Trace options for VRRP.

<vrrp-group> (configuration/interfaces/interface/unit/family/inet/address)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <address>
              <vrrp-group>
                <name>name</name>     <!-- identifier -->
                <virtual-address>...</virtual-address>
                <priority>priority</priority>
                <advertise-interval>seconds</advertise-interval>
                <preempt/>
                <accept-data/>
                <authentication-type>authentication-type-choice</authentication-type>
                <authentication-key>authentication-key</authentication-key>
                <track>...</track>
              </vrrp-group>
            </address>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description VRRP group.

Contents <accept-data>—Accept packets destined for virtual IP address.

<advertise-interval>—Advertisement interval.

<authentication-key>—Authentication key.

<authentication-type>—Authentication type.

- md5—HMAC-MD5-96.
- simple—Simple password.

<name>—VRRP group ID.

<preempt>—Allow preemption.

<priority>—Virtual router election priority.

<track>—Interfaces to track for the VRRP group.

<virtual-address>—Virtual addresses.

<xnm-clear-text> (configuration/system/services)

Usage

```
<configuration>
  <system>
    <services>
      <xnm-clear-text>
        <connection-limit>connection-limit</connection-limit>
        <rate-limit>rate-limit</rate-limit>
      </xnm-clear-text>
    </services>
  </system>
</configuration>
```

Description Allow clear text-based JUNOScript connections.

Contents <connection-limit>—Maximum number of allowed connections.

<rate-limit>—Maximum number of connections per minute.

<xnm-ssl> (configuration/system/services)

Usage

```
<configuration>
  <system>
    <services>
      <xnm-ssl>
        <local-certificate>local-certificate</local-certificate>
        <connection-limit>connection-limit</connection-limit>
        <rate-limit>rate-limit</rate-limit>
      </xnm-ssl>
    </services>
  </system>
</configuration>
```

Description Allow SSL-based JUNOScript connections.

Contents <connection-limit>—Maximum number of allowed connections.

<local-certificate>—Name of local X.509 certificate to use.

<rate-limit>—Maximum number of connections per minute.

Part 2

JUNOScript Document Type Definitions

The chapters in this section contain the document type definitions (DTDs) for various router functions:

- DTD for Session Control Response Tags on page 1699
- DTD for Accounting Response Tags on page 1703
- DTD for Alarm Response Tags on page 1707
- DTD for Chassis Response Tags on page 1709
- DTD for Class-of-Service Response Tags on page 1715
- DTD for Firewall Filter Response Tags on page 1723
- DTD for Forwarding and Routing Table Response Tags on page 1725
- DTD for Interface Response Tags on page 1727
- DTD for IPSec Response Tags on page 1751
- DTD for IPv6 Neighbor Discovery Response Tags on page 1755
- DTD for J20 GGSN Response Tags on page 1757
- DTD for Passive Monitoring Response Tags on page 1763
- DTD for Routing Protocols Response Tags on page 1765
- DTD for SNMP Response Tags on page 1805
- DTD for UDP Forwarding Helper Response Tags on page 1813

Chapter 6
DTD for Session Control Response Tags

This chapter contains the document type definition (DTD) called junos.dtd, which lists the session control tags returned by the JUNOScript server. The associated Extensible Markup Language (XML) namespace is http://xml.juniper.net/junos/5.5R1/junos. To review reference pages for the tags, see "Summary of Session Control Tags" on page 3.

```
<!-- Copyright (c) 2000-2002, Juniper Networks, Inc. -->
<!-- All rights reserved. -->
<!-- junos.dtd -->

<!ELEMENT abort EMPTY>

<!ELEMENT abort-acknowledgement EMPTY>

<!ELEMENT action (#PCDATA)>

<!ELEMENT active-user-count (#PCDATA)>
<!ATTLIST active-user-count junos:format CDATA #IMPLIED>

<!ELEMENT build-date (#PCDATA)>

<!ELEMENT build-number (#PCDATA)>

<!ELEMENT builder (#PCDATA)>

<!ELEMENT cause (#PCDATA)>

<!ELEMENT column (#PCDATA)>

<!ELEMENT commit-check-success EMPTY>

<!ELEMENT commit-results (routing-engine)*>

<!ELEMENT commit-success EMPTY>

<!ELEMENT component (#PCDATA)>

<!ELEMENT configuration (#PCDATA)>

<!ELEMENT configuration-text (#PCDATA)>

<!ELEMENT current-time (date-time)*>

<!ELEMENT date-time (#PCDATA)>
<!ATTLIST date-time junos:seconds CDATA #IMPLIED>

<!ELEMENT deprecated (#PCDATA)>
```

```
<!ELEMENT diff-error-count (#PCDATA)>

<!ELEMENT edit-path (#PCDATA)>

<!ELEMENT end-session EMPTY>

<!ELEMENT error (parse | source-daemon | filename | line-number | column | token | edit-path |
statement | message)*>

<!ELEMENT filename (#PCDATA)>

<!ELEMENT from (#PCDATA)>

<!ELEMENT idle-time (#PCDATA)>
<!ATTLIST idle-time junos:seconds CDATA #IMPLIED>

<!ELEMENT last-configured-time (date-time | time-length | user)*>

<!ELEMENT line-number (#PCDATA)>

<!ELEMENT load-average-1 (#PCDATA)>

<!ELEMENT load-average-15 (#PCDATA)>

<!ELEMENT load-average-5 (#PCDATA)>

<!ELEMENT load-configuration-results (load-error-count | load-success | diff-error-count |
rollback-success)*>

<!ELEMENT load-error-count (#PCDATA)>

<!ELEMENT load-success EMPTY>

<!ELEMENT login-time (#PCDATA)>
<!ATTLIST login-time junos:seconds CDATA #IMPLIED>

<!ELEMENT major (#PCDATA)>

<!ELEMENT message (#PCDATA)>

<!ELEMENT minor (#PCDATA)>

<!ELEMENT output (#PCDATA)>

<!ELEMENT parse EMPTY>

<!ELEMENT percent-complete (#PCDATA)>

<!ELEMENT process-entry (process-id)*>

<!ELEMENT process-id (#PCDATA)>

<!ELEMENT process-table (process-entry)*>

<!ELEMENT progress-indicator (timestamp | percent-complete | message)*>

<!ELEMENT protocols-started-time (date-time | time-length)*>

<!ELEMENT release-category (#PCDATA)>

<!ELEMENT rollback-success EMPTY>
```

```
<!ELEMENT routing-engine (commit-check-success | commit-success | progress-indicator)*>
<!ATTLIST routing-engine junos:style CDATA #IMPLIED>

<!ELEMENT rpc-reply (#PCDATA)*>

<!ELEMENT service-interface (#PCDATA)>

<!ELEMENT severity (#PCDATA)>

<!ELEMENT source-daemon (#PCDATA)>

<!ELEMENT spin (#PCDATA)>

<!ELEMENT statement (#PCDATA)>

<!ELEMENT syslog-tag (message | type | severity | deprecated | cause | action)*>

<!ELEMENT syslog-tag-information (syslog-tag)*>

<!ELEMENT system-booted-time (date-time | time-length)*>

<!ELEMENT system-uptime-information (last-configured-time | current-time | system-booted-time |
protocols-started-time | uptime-information)*>

<!ELEMENT system-users-information (uptime-information)*>

<!ELEMENT time-length (#PCDATA)>
<!ATTLIST time-length junos:seconds CDATA #IMPLIED>

<!ELEMENT timestamp (#PCDATA)>

<!ELEMENT token (#PCDATA)>

<!ELEMENT tty (#PCDATA)>

<!ELEMENT type (#PCDATA)>

<!ELEMENT up-time (#PCDATA)>
<!ATTLIST up-time junos:seconds CDATA #IMPLIED>

<!ELEMENT uptime-information (date-time | up-time | active-user-count | load-average-1 | load-average-5
| load-average-15 | user-table)*>

<!ELEMENT user (#PCDATA)>

<!ELEMENT user-entry (user | tty | from | login-time | idle-time)*>

<!ELEMENT user-table (user-entry | process-table)*>

<!ELEMENT version-info (component | service-interface | major | minor | release-category | build-number
| spin | builder | build-date)*>

<!ELEMENT version-info-list (source-daemon | version-info)*>

<!ELEMENT warning (source-daemon | filename | line-number | column | token | message)*>

<!ELEMENT xnm:error (parse | source-daemon | filename | line-number | column | token | edit-path |
statement | message)*>

<!ELEMENT xnm:warning (source-daemon | filename | line-number | column | token | message)*>
```

Chapter 7

DTD for Accounting Response Tags

This chapter contains the document type definition (DTD) called junos-accounting.dtd, which lists the tags returned by the JUNOScript server to describe accounting records. The associated Extensible Markup Language (XML) namespace is http://xml.juniper.net/junos/5.5R1/junos-accounting. To review reference pages for the tags, see "Summary of Accounting Response Tags" on page 82.

```
<!-- Copyright (c) 2000-2002, Juniper Networks, Inc. -->
<!-- All rights reserved. -->
<!-- junos-accounting.dtd -->

<!ELEMENT accounting-profile-columns (column-label)*>

<!ELEMENT accounting-profile-filter (filter-name | next-scheduled-collection)*>

<!ELEMENT accounting-profile-header (profile-name | profile-interval | profile-use-count | filename |
filesize | filenumber | bytes-written | transfer-interval | next-transfer-time)*>

<!ELEMENT accounting-profile-information (accounting-profile-header | accounting-profile-columns |
accounting-profile-interfaces | accounting-profile-filter)*>

<!ELEMENT accounting-profile-interfaces (interface-name | next-scheduled-collection)*>

<!ELEMENT accounting-record-information (interface-accounting-statistics |
routing-engine-accounting-statistics | filter-accounting-statistics | cu-accounting-statistics)*>

<!ELEMENT address-family (#PCDATA)>

<!ELEMENT byte-count (#PCDATA)>

<!ELEMENT bytes-written (#PCDATA)>

<!ELEMENT column-label (#PCDATA)>

<!ELEMENT counter-name (#PCDATA)>

<!ELEMENT cpu15min (#PCDATA)>

<!ELEMENT cpu1min (#PCDATA)>

<!ELEMENT cpu5min (#PCDATA)>

<!ELEMENT cu-accounting-record (profile-layout | epoch-timestamp | utc-timestamp | interface-name |
address-family | destination-class-name | source-class-name | counter-name | packet-count |
byte-count)*>
<!ATTLIST cu-accounting-record junos:style CDATA #IMPLIED>
```

```
<!ELEMENT cu-accounting-statistics (cu-accounting-record)*>

<!ELEMENT date-yyyymmdd (#PCDATA)>

<!ELEMENT destination-class-name (#PCDATA)>

<!ELEMENT epoch-timestamp (#PCDATA)>

<!ELEMENT filename (#PCDATA)>

<!ELEMENT filenumber (#PCDATA)>

<!ELEMENT filesize (#PCDATA)>

<!ELEMENT filter-accounting-record (profile-layout | epoch-timestamp | utc-timestamp | interfaces |
filter-name | counter-name | packet-count | byte-count)*>
<!ATTLIST filter-accounting-record junos:style CDATA #IMPLIED>

<!ELEMENT filter-accounting-statistics (filter-accounting-record)*>

<!ELEMENT filter-name (#PCDATA)>

<!ELEMENT hostname (#PCDATA)>

<!ELEMENT input-bytes (#PCDATA)>

<!ELEMENT input-errors (#PCDATA)>

<!ELEMENT input-multicast (#PCDATA)>

<!ELEMENT input-packets (#PCDATA)>

<!ELEMENT input-unicast (#PCDATA)>

<!ELEMENT interface-accounting-record (profile-layout | epoch-timestamp | utc-timestamp |
interface-name | snmp-index | input-bytes | output-bytes | input-packets | output-packets | input-unicast |
output-unicast | input-multicast | output-multicast | input-errors | output-errors | no-proto |
rpf-check-bytes | rpf-check-packets | rpf-check6-bytes | rpf-check6-packets)*>
<!ATTLIST interface-accounting-record junos:style CDATA #IMPLIED>

<!ELEMENT interface-accounting-statistics (interface-accounting-record)*>

<!ELEMENT interface-name (#PCDATA)>

<!ELEMENT interfaces (#PCDATA)>

<!ELEMENT next-scheduled-collection (#PCDATA)>

<!ELEMENT next-transfer-time (#PCDATA)>

<!ELEMENT no-proto (#PCDATA)>

<!ELEMENT output-bytes (#PCDATA)>

<!ELEMENT output-errors (#PCDATA)>

<!ELEMENT output-multicast (#PCDATA)>

<!ELEMENT output-packets (#PCDATA)>

<!ELEMENT output-unicast (#PCDATA)>
```

```
<!ELEMENT packet-count (#PCDATA)>

<!ELEMENT profile-interval (#PCDATA)>

<!ELEMENT profile-layout (#PCDATA)>

<!ELEMENT profile-name (#PCDATA)>

<!ELEMENT profile-use-count (#PCDATA)>

<!ELEMENT routing-engine-accounting-record (profile-layout | epoch-timestamp | utc-timestamp |
hostname | date-yyyymmdd | timeofday-hhmmss | uptime | cpu1min | cpu5min | cpu15min)*>
<!ATTLIST routing-engine-accounting-record junos:style CDATA #IMPLIED>

<!ELEMENT routing-engine-accounting-statistics (routing-engine-accounting-record)*>

<!ELEMENT rpf-check-bytes (#PCDATA)>

<!ELEMENT rpf-check-packets (#PCDATA)>

<!ELEMENT rpf-check6-bytes (#PCDATA)>

<!ELEMENT rpf-check6-packets (#PCDATA)>

<!ELEMENT snmp-index (#PCDATA)>

<!ELEMENT source-class-name (#PCDATA)>

<!ELEMENT timeofday-hhmmss (#PCDATA)>

<!ELEMENT transfer-interval (#PCDATA)>

<!ELEMENT uptime (#PCDATA)>
<!ATTLIST uptime junos:seconds CDATA #IMPLIED>

<!ELEMENT utc-timestamp (#PCDATA)>
```

Chapter 8
DTD for Alarm Response Tags

This chapter contains the document type definition (DTD) called junos-alarm.dtd, which lists the tags returned by the JUNOScript server to describe alarms. The associated Extensible Markup Language (XML) namespace is http://xml.juniper.net/junos/5.5R1/junos-alarm. To review reference pages for the tags, see "Summary of Alarm Response Tags" on page 89.

```
<!-- Copyright (c) 2000-2002, Juniper Networks, Inc. -->
<!-- All rights reserved. -->
<!-- junos-alarm.dtd -->

<!ELEMENT active-alarm-count (#PCDATA)>

<!ELEMENT alarm-class (#PCDATA)>

<!ELEMENT alarm-description (#PCDATA)>

<!ELEMENT alarm-detail (alarm-time | alarm-class | alarm-description)*>

<!ELEMENT alarm-information (alarm-summary | alarm-detail)*>

<!ELEMENT alarm-summary (active-alarm-count | no-active-alarms)*>

<!ELEMENT alarm-time (#PCDATA)>
<!ATTLIST alarm-time junos:seconds CDATA #IMPLIED>

<!ELEMENT no-active-alarms EMPTY>
```

Chapter 9
DTD for Chassis Response Tags

This chapter contains the document type definition (DTD) called junos-chassis.dtd, which lists the tags returned by the JUNOScript server to describe the router chassis. The associated Extensible Markup Language (XML) namespace is http://xml.juniper.net/junos/5.5R1/junos-chassis. To review reference pages for the tags, see "Summary of Chassis Response Tags" on page 90.

```
<!-- Copyright (c) 2000-2002, Juniper Networks, Inc. -->
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<!-- junos-chassis.dtd -->

<!ELEMENT activate-count (#PCDATA)>

<!ELEMENT alarm-indicators (red-led | yellow-led | major-alarm-relay | minor-alarm-relay)*>

<!ELEMENT amber-led EMPTY>

<!ELEMENT asic-information (#PCDATA)>

<!ELEMENT asic-name (#PCDATA)>

<!ELEMENT asic-type (#PCDATA)>

<!ELEMENT assembly-flags (#PCDATA)>

<!ELEMENT assembly-identifier (#PCDATA)>

<!ELEMENT assembly-version (#PCDATA)>

<!ELEMENT bios-version (#PCDATA)>

<!ELEMENT blue-led EMPTY>

<!ELEMENT board-information-record (#PCDATA)>

<!ELEMENT cable-type (#PCDATA)>

<!ELEMENT cb (slot | amber-led | green-led | blue-led)*>

<!ELEMENT cb-panel (cb)*>

<!ELEMENT chassis (name | version | part-number | serial-number | description | i2c-information |
chassis-module)*>
<!ATTLIST chassis junos:style CDATA #IMPLIED>

<!ELEMENT chassis-inventory (chassis)*>
```

```
<!ELEMENT chassis-module (name | version | part-number | serial-number | description | i2c-information
| firmware | chassis-sub-module)*>

<!ELEMENT chassis-sub-module (name | version | part-number | serial-number | description |
i2c-information | firmware | chassis-sub-sub-module)*>

<!ELEMENT chassis-sub-sub-module (name | version | part-number | serial-number | description)*>

<!ELEMENT class (#PCDATA)>

<!ELEMENT comment (#PCDATA)>

<!ELEMENT cpu-background (#PCDATA)>

<!ELEMENT cpu-idle (#PCDATA)>

<!ELEMENT cpu-interrupt (#PCDATA)>

<!ELEMENT cpu-rom-version (#PCDATA)>

<!ELEMENT cpu-sw-version (#PCDATA)>

<!ELEMENT cpu-system (#PCDATA)>

<!ELEMENT cpu-total (#PCDATA)>

<!ELEMENT cpu-user (#PCDATA)>

<!ELEMENT craft-information (front-panel | mcs-panel | sfm-panel | pcg-panel | cb-panel | sib-panel |
scg-panel | output)*>

<!ELEMENT description (#PCDATA)>

<!ELEMENT display-line (#PCDATA)>

<!ELEMENT display-panel (display-line)*>

<!ELEMENT eeprom-version (#PCDATA)>

<!ELEMENT environment-information (environment-item)*>

<!ELEMENT environment-item (class | name | status | temperature | comment)*>

<!ELEMENT fail-led EMPTY>

<!ELEMENT failover-count (#PCDATA)>

<!ELEMENT firmware (type | firmware-version)*>

<!ELEMENT firmware-information (chassis)*>

<!ELEMENT firmware-version (#PCDATA)>

<!ELEMENT fpc (slot | logical-slot | state | temperature | cpu-total | cpu-interrupt | memory-dram-size |
memory-sram-size | memory-sdram-size | memory-notification-sdram-size | memory-heap-utilization |
memory-buffer-utilization | asic-information | start-time | up-time | comment | pic | pic-detail | red-led |
green-led)*>

<!ELEMENT fpc-information (fpc)*>
<!ATTLIST fpc-information junos:style CDATA #IMPLIED>

<!ELEMENT fpc-panel (fpc)*>
```

```
<!ELEMENT front-panel (display-panel | re-panel | alarm-indicators | fpc-panel)*>

<!ELEMENT green-led EMPTY>

<!ELEMENT i2c-data (#PCDATA)>

<!ELEMENT i2c-identifier (#PCDATA)>

<!ELEMENT i2c-information (jedec-code | eeprom-version | part-number | serial-number |
assembly-identifier | assembly-version | manufacture-date | assembly-flags | i2c-version | i2c-identifier |
i2c-data | board-information-record | rma-record)*>

<!ELEMENT i2c-version (#PCDATA)>

<!ELEMENT jedec-code (#PCDATA)>

<!ELEMENT load-average-fifteen (#PCDATA)>

<!ELEMENT load-average-five (#PCDATA)>

<!ELEMENT load-average-one (#PCDATA)>

<!ELEMENT logical-slot (#PCDATA)>

<!ELEMENT major-alarm-relay EMPTY>

<!ELEMENT manufacture-date (#PCDATA)>

<!ELEMENT master-led EMPTY>

<!ELEMENT mastership-priority (#PCDATA)>

<!ELEMENT mastership-state (#PCDATA)>

<!ELEMENT mcs (slot | amber-led | green-led | blue-led)*>

<!ELEMENT mcs-panel (mcs)*>

<!ELEMENT memory-buffer-utilization (#PCDATA)>

<!ELEMENT memory-dram-size (#PCDATA)>

<!ELEMENT memory-heap-utilization (#PCDATA)>

<!ELEMENT memory-notification-sdram-size (#PCDATA)>

<!ELEMENT memory-sdram-size (#PCDATA)>

<!ELEMENT memory-sram-size (#PCDATA)>

<!ELEMENT minor-alarm-relay EMPTY>

<!ELEMENT model (#PCDATA)>

<!ELEMENT name (#PCDATA)>

<!ELEMENT number (#PCDATA)>

<!ELEMENT ok-led EMPTY>

<!ELEMENT output (#PCDATA)>
```

```
<!ELEMENT part-number (#PCDATA)>

<!ELEMENT pcg (slot | amber-led | green-led | blue-led)*>

<!ELEMENT pcg-panel (pcg)*>

<!ELEMENT pic (pic-slot | pic-type | comment)*>

<!ELEMENT pic-detail (slot | pic-slot | pic-type | asic-type | comment | pic-version | state | cpu-total |
cpu-interrupt | memory-buffer-utilization | memory-heap-utilization | memory-dram-size | cpu-sw-version |
cpu-rom-version | up-time | port-information)*>

<!ELEMENT pic-slot (#PCDATA)>

<!ELEMENT pic-type (#PCDATA)>

<!ELEMENT pic-version (#PCDATA)>

<!ELEMENT port (port-number | cable-type)*>

<!ELEMENT port-information (port)*>

<!ELEMENT port-number (#PCDATA)>

<!ELEMENT re (slot | ok-led | fail-led | master-led)*>

<!ELEMENT re-panel (re)*>

<!ELEMENT red-led EMPTY>

<!ELEMENT reset-count (#PCDATA)>

<!ELEMENT rma-record (#PCDATA)>

<!ELEMENT route-engine (description | slot | mastership-state | mastership-priority | temperature |
memory-dram-size | memory-buffer-utilization | cpu-user | cpu-background | cpu-system | cpu-interrupt |
cpu-idle | model | serial-number | start-time | up-time | load-average-one | load-average-five |
load-average-fifteen | bios-version)*>

<!ELEMENT route-engine-information (route-engine)*>

<!ELEMENT scb (slot | state | failover-count | reset-count | activate-count | temperature |
spp-temperature | spr-temperature | cpu-total | cpu-interrupt | memory-dram-size | memory-sram-size |
memory-heap-utilization | memory-buffer-utilization | asic-name | asic-information | start-time | up-time |
comment)*>

<!ELEMENT scb-information (scb-type | scb)*>
<!ATTLIST scb-information junos:style CDATA #IMPLIED>

<!ELEMENT scb-type (#PCDATA)>

<!ELEMENT scg (slot | amber-led | green-led | blue-led)*>

<!ELEMENT scg-panel (scg)*>

<!ELEMENT serial-number (#PCDATA)>

<!ELEMENT sfm (slot | amber-led | green-led | blue-led)*>

<!ELEMENT sfm-panel (sfm)*>

<!ELEMENT sib-panel (#PCDATA)*>
```

```
<!ELEMENT slot (#PCDATA)>

<!ELEMENT spp-temperature (#PCDATA)>

<!ELEMENT spr-temperature (#PCDATA)>

<!ELEMENT start-time (#PCDATA)>
<!ATTLIST start-time junos:seconds CDATA #IMPLIED>

<!ELEMENT state (#PCDATA)>

<!ELEMENT status (#PCDATA)>

<!ELEMENT temperature (#PCDATA)>
<!ATTLIST temperature junos:celsius CDATA #IMPLIED>

<!ELEMENT type (#PCDATA)>

<!ELEMENT up-time (#PCDATA)>
<!ATTLIST up-time junos:seconds CDATA #IMPLIED>

<!ELEMENT version (#PCDATA)>

<!ELEMENT yellow-led EMPTY>
```

Chapter 10
DTD for Class-of-Service Response Tags

This chapter contains the document type definition (DTD) called junos-cos.dtd, which lists the tags returned by the JUNOScript server to describe class-of-service settings. The associated Extensible Markup Language (XML) namespace is http://xml.juniper.net/junos/5.5R1/junos-cos. To review reference pages for the tags, see "Summary of Class of Service Response Tags" on page 107.

```
<!-- Copyright (c) 2000-2002, Juniper Networks, Inc. -->
<!-- All rights reserved. -->
<!-- junos-cos.dtd -->

<!ELEMENT alias-map (alias-map-item)*>

<!ELEMENT alias-map-item (code-point-bits | code-point-alias)*>

<!ELEMENT classifier (classifier-name | code-point-type | table-index | classifier-map)*>

<!ELEMENT classifier-map (classifier-map-item)*>

<!ELEMENT classifier-map-item (code-point | fc-name | loss-priority)*>

<!ELEMENT classifier-name (#PCDATA)>

<!ELEMENT classifier-table (table-index | number-of-entries | table-type | classifier-table-entry)*>

<!ELEMENT classifier-table-entry (table-index | code-point | fc-queue-number | loss-priority)*>

<!ELEMENT classifier-table-entry-index (#PCDATA)>

<!ELEMENT classifier-table-map (table-index | table-type | logical-interface | logical-interface-index)*>

<!ELEMENT code-point (#PCDATA)>

<!ELEMENT code-point-alias (#PCDATA)>

<!ELEMENT code-point-bits (#PCDATA)>

<!ELEMENT code-point-map (code-point-type | alias-map)*>

<!ELEMENT code-point-type (#PCDATA)>

<!ELEMENT cos-classifier-information (classifier)*>

<!ELEMENT cos-classifier-table-information (classifier-table)*>

<!ELEMENT cos-classifier-table-map-information (classifier-table-map)*>
```

```
<!ELEMENT cos-code-point-map-information (code-point-map)*>

<!ELEMENT cos-drop-profile-information (drop-profile)*>

<!ELEMENT cos-fabric-scheduler-map-information (fabric-scheduler-map)*>

<!ELEMENT cos-fabric-scheduler-map-table-information (fabric-scheduler-map-table)*>

<!ELEMENT cos-forwarding-class-information (fc-map)*>

<!ELEMENT cos-information (cos-forwarding-class-information | cos-classifier-information |
cos-drop-profile-information | cos-rewrite-information | cos-code-point-map-information)*>

<!ELEMENT cos-interface-information (interface-map)*>

<!ELEMENT cos-policer-table-map-information (policer-table-map)*>

<!ELEMENT cos-red-information (red)*>

<!ELEMENT cos-rewrite-information (rewrite)*>

<!ELEMENT cos-rewrite-table-information (rewrite-table)*>

<!ELEMENT cos-rewrite-table-map-information (rewrite-table-map)*>

<!ELEMENT cos-scheduler-map-information (scheduler-map)*>

<!ELEMENT cos-scheduler-map-table-information (policy)*>

<!ELEMENT cos-shaper-table-map-information (shaper-table-map)*>

<!ELEMENT cos-table-information (cos-classifier-table-information | cos-classifier-table-map-information |
cos-scheduler-map-table-information | cos-red-information | cos-rewrite-table-information |
cos-rewrite-table-map-information | cos-policer-table-map-information |
cos-shaper-table-map-information)*>

<!ELEMENT dest-fpc-index (#PCDATA)>

<!ELEMENT drop-bps-high (#PCDATA)>

<!ELEMENT drop-bps-low (#PCDATA)>

<!ELEMENT drop-bytes-high (#PCDATA)>

<!ELEMENT drop-bytes-low (#PCDATA)>

<!ELEMENT drop-pkts-high (#PCDATA)>

<!ELEMENT drop-pkts-low (#PCDATA)>

<!ELEMENT drop-pps-high (#PCDATA)>

<!ELEMENT drop-pps-low (#PCDATA)>

<!ELEMENT drop-profile (profile-name | profile-type | table-index | profile-map)*>

<!ELEMENT fabric-queue-information (fpc-queue-information)*>
```

```
<!ELEMENT fabric-scheduler (fabric-scheduler-name | fabric-scheduler-index |
fabric-scheduler-drop-profile-ln-index | fabric-scheduler-drop-profile-ln |
fabric-scheduler-drop-profile-lt-index | fabric-scheduler-drop-profile-lt |
fabric-scheduler-drop-profile-hn-index | fabric-scheduler-drop-profile-hn |
fabric-scheduler-drop-profile-ht-index | fabric-scheduler-drop-profile-ht)*>

<!ELEMENT fabric-scheduler-drop-profile-hn (#PCDATA)>

<!ELEMENT fabric-scheduler-drop-profile-hn-index (#PCDATA)>

<!ELEMENT fabric-scheduler-drop-profile-ht (#PCDATA)>

<!ELEMENT fabric-scheduler-drop-profile-ht-index (#PCDATA)>

<!ELEMENT fabric-scheduler-drop-profile-ln (#PCDATA)>

<!ELEMENT fabric-scheduler-drop-profile-ln-index (#PCDATA)>

<!ELEMENT fabric-scheduler-drop-profile-lt (#PCDATA)>

<!ELEMENT fabric-scheduler-drop-profile-lt-index (#PCDATA)>

<!ELEMENT fabric-scheduler-index (#PCDATA)>

<!ELEMENT fabric-scheduler-map (fabric-scheduler-priority | fabric-scheduler)*>

<!ELEMENT fabric-scheduler-map-table (fabric-scheduler-priority | fabric-scheduler-table)*>

<!ELEMENT fabric-scheduler-name (#PCDATA)>

<!ELEMENT fabric-scheduler-priority (#PCDATA)>

<!ELEMENT fabric-scheduler-table (fabric-scheduler-index | fabric-scheduler-drop-profile-hn-index |
fabric-scheduler-drop-profile-ln-index | fabric-scheduler-drop-profile-ht-index |
fabric-scheduler-drop-profile-lt-index)*>

<!ELEMENT fc-map (fc-map-item)*>

<!ELEMENT fc-map-item (fc-name | fc-queue-number | fc-priority)*>

<!ELEMENT fc-name (#PCDATA)>

<!ELEMENT fc-priority (#PCDATA)>

<!ELEMENT fc-queue-number (#PCDATA)>

<!ELEMENT fill-level (#PCDATA)>

<!ELEMENT fpc-queue-information (dest-fpc-index | src-fpc-index | queue-information)*>

<!ELEMENT high-drop-profile-identifier (#PCDATA)>

<!ELEMENT i-logical-index (#PCDATA)>

<!ELEMENT i-logical-map (i-logical-name | i-logical-index | policer-bandwidth | policer-burst |
shaper-bandwidth | shaper-burst | i-logical-objects)*>

<!ELEMENT i-logical-name (#PCDATA)>

<!ELEMENT i-logical-object-index (#PCDATA)>

<!ELEMENT i-logical-object-name (#PCDATA)>
```

```
<!ELEMENT i-logical-object-subtype (#PCDATA)>

<!ELEMENT i-logical-object-type (#PCDATA)>

<!ELEMENT i-logical-objects (i-logical-object-type | i-logical-object-name | i-logical-object-subtype |
i-logical-object-index)*>

<!ELEMENT interface (#PCDATA)>

<!ELEMENT interface-index (#PCDATA)>

<!ELEMENT interface-map (interface-name | interface-index | scheduler-map-name | scheduler-map-index
| i-logical-map)*>

<!ELEMENT interface-name (#PCDATA)>

<!ELEMENT logical-interface (#PCDATA)>

<!ELEMENT logical-interface-index (#PCDATA)>

<!ELEMENT loss-priority (#PCDATA)>

<!ELEMENT low-drop-profile-identifier (#PCDATA)>

<!ELEMENT number-of-entries (#PCDATA)>

<!ELEMENT p-interface (#PCDATA)>

<!ELEMENT p-interface-index (#PCDATA)>

<!ELEMENT physical-interface (#PCDATA)>

<!ELEMENT physical-interface-index (#PCDATA)>

<!ELEMENT policer-bandwidth (#PCDATA)>

<!ELEMENT policer-burst (#PCDATA)>

<!ELEMENT policer-table-map (p-interface | p-interface-index | policer-bandwidth | policer-burst)*>

<!ELEMENT policy (interface | interface-index | policy-index | policy-number-of-queues | policy-entry)*>

<!ELEMENT policy-buffer-size-percentage (#PCDATA)>

<!ELEMENT policy-buffer-size-remainder (#PCDATA)>

<!ELEMENT policy-entry (table-index | policy-entry-identifier | fc-queue-number | policy-transmit-rate |
policy-transmit-rate-percentage | policy-transmit-rate-remainder | policy-buffer-size-percentage |
policy-buffer-size-remainder | policy-high-priority | policy-strict-high-priority | policy-packet-loss-profile |
policy-exact)*>

<!ELEMENT policy-entry-identifier (#PCDATA)>

<!ELEMENT policy-exact (#PCDATA)>

<!ELEMENT policy-high-priority (#PCDATA)>

<!ELEMENT policy-index (#PCDATA)>

<!ELEMENT policy-number-of-queues (#PCDATA)>
```

```
<!ELEMENT policy-packet-loss-profile (high-drop-profile-identifier | low-drop-profile-identifier |
tcp-high-drop-profile-identifier | tcp-low-drop-profile-identifier)*>

<!ELEMENT policy-strict-high-priority (#PCDATA)>

<!ELEMENT policy-transmit-rate (#PCDATA)>

<!ELEMENT policy-transmit-rate-percentage (#PCDATA)>

<!ELEMENT policy-transmit-rate-remainder (#PCDATA)>

<!ELEMENT probability (#PCDATA)>

<!ELEMENT profile-map (profile-map-item)*>

<!ELEMENT profile-map-item (fill-level | probability)*>

<!ELEMENT profile-name (#PCDATA)>

<!ELEMENT profile-type (#PCDATA)>

<!ELEMENT queue-information (queue-information-item)*>

<!ELEMENT queue-information-item (total-pkts-high | total-bytes-high | total-pkts-low | total-bytes-low |
total-pps-high | total-bps-high | total-pps-low | total-bps-low | tx-pkts-high | tx-bytes-high | tx-pkts-low |
tx-bytes-low | tx-pps-high | tx-bps-high | tx-pps-low | tx-bps-low | drop-pkts-high | drop-bytes-high |
drop-pkts-low | drop-bytes-low | drop-pps-high | drop-bps-high | drop-pps-low | drop-bps-low)*>

<!ELEMENT red (red-drop-profile-identifier | number-of-entries | red-entry)*>

<!ELEMENT red-drop-probability (#PCDATA)>

<!ELEMENT red-drop-profile-identifier (#PCDATA)>

<!ELEMENT red-entry (red-entry-index | red-fullness | red-drop-probability)*>

<!ELEMENT red-entry-index (#PCDATA)>

<!ELEMENT red-fullness (#PCDATA)>

<!ELEMENT rewrite (rewrite-name | code-point-type | table-index | rewrite-map)*>

<!ELEMENT rewrite-high-codepoint (#PCDATA)>

<!ELEMENT rewrite-high-enable-state (#PCDATA)>

<!ELEMENT rewrite-low-codepoint (#PCDATA)>

<!ELEMENT rewrite-low-enable-state (#PCDATA)>

<!ELEMENT rewrite-map (rewrite-map-item)*>

<!ELEMENT rewrite-map-item (code-point | fc-name | loss-priority)*>

<!ELEMENT rewrite-name (#PCDATA)>

<!ELEMENT rewrite-table (table-index | number-of-entries | table-type | rewrite-table-entry)*>

<!ELEMENT rewrite-table-entry (fc-queue-number | rewrite-low-codepoint | rewrite-low-enable-state |
rewrite-high-codepoint | rewrite-high-enable-state)*>

<!ELEMENT rewrite-table-map (table-index | table-type | logical-interface | logical-interface-index)*>
```

```
<!ELEMENT s-interface (#PCDATA)>

<!ELEMENT s-interface-index (#PCDATA)>

<!ELEMENT scheduler (fc-name | scheduler-name | scheduler-index | scheduler-tx-rate | scheduler-tx-limit
| scheduler-buffer-size | scheduler-priority | scheduler-drop-profile-ln-index | scheduler-drop-profile-ln |
scheduler-drop-profile-lt-index | scheduler-drop-profile-lt | scheduler-drop-profile-hn-index |
scheduler-drop-profile-hn | scheduler-drop-profile-ht-index | scheduler-drop-profile-ht)*>

<!ELEMENT scheduler-buffer-size (#PCDATA)>

<!ELEMENT scheduler-drop-profile-hn (#PCDATA)>

<!ELEMENT scheduler-drop-profile-hn-index (#PCDATA)>

<!ELEMENT scheduler-drop-profile-ht (#PCDATA)>

<!ELEMENT scheduler-drop-profile-ht-index (#PCDATA)>

<!ELEMENT scheduler-drop-profile-ln (#PCDATA)>

<!ELEMENT scheduler-drop-profile-ln-index (#PCDATA)>

<!ELEMENT scheduler-drop-profile-lt (#PCDATA)>

<!ELEMENT scheduler-drop-profile-lt-index (#PCDATA)>

<!ELEMENT scheduler-index (#PCDATA)>

<!ELEMENT scheduler-map (scheduler-map-name | scheduler-map-index | scheduler)*>

<!ELEMENT scheduler-map-index (#PCDATA)>

<!ELEMENT scheduler-map-name (#PCDATA)>

<!ELEMENT scheduler-name (#PCDATA)>

<!ELEMENT scheduler-priority (#PCDATA)>

<!ELEMENT scheduler-tx-limit (#PCDATA)>

<!ELEMENT scheduler-tx-rate (#PCDATA)>

<!ELEMENT shaper-bandwidth (#PCDATA)>

<!ELEMENT shaper-burst (#PCDATA)>

<!ELEMENT shaper-table-map (s-interface | s-interface-index | shaper-bandwidth | shaper-burst)*>

<!ELEMENT src-fpc-index (#PCDATA)>

<!ELEMENT table-index (#PCDATA)>

<!ELEMENT table-type (#PCDATA)>

<!ELEMENT tcp-high-drop-profile-identifier (#PCDATA)>

<!ELEMENT tcp-low-drop-profile-identifier (#PCDATA)>

<!ELEMENT total-bps-high (#PCDATA)>

<!ELEMENT total-bps-low (#PCDATA)>
```

```
<!ELEMENT total-bytes-high (#PCDATA)>

<!ELEMENT total-bytes-low (#PCDATA)>

<!ELEMENT total-pkts-high (#PCDATA)>

<!ELEMENT total-pkts-low (#PCDATA)>

<!ELEMENT total-pps-high (#PCDATA)>

<!ELEMENT total-pps-low (#PCDATA)>

<!ELEMENT tx-bps-high (#PCDATA)>

<!ELEMENT tx-bps-low (#PCDATA)>

<!ELEMENT tx-bytes-high (#PCDATA)>

<!ELEMENT tx-bytes-low (#PCDATA)>

<!ELEMENT tx-pkts-high (#PCDATA)>

<!ELEMENT tx-pkts-low (#PCDATA)>

<!ELEMENT tx-pps-high (#PCDATA)>

<!ELEMENT tx-pps-low (#PCDATA)>
```

Chapter 11

DTD for Firewall Filter Response Tags

This chapter contains the document type definition (DTD) called junos-filter.dtd, which lists the tags returned by the JUNOScript server to describe firewall filter information. The associated Extensible Markup Language (XML) namespace is http://xml.juniper.net/junos/5.5R1/junos-filter. To review reference pages for the tags, see "Summary of Firewall Filter Response Tags" on page 130.

```
<!-- Copyright (c) 2000-2002, Juniper Networks, Inc. -->
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<!-- junos-filter.dtd -->

<!ELEMENT action-name (#PCDATA)>

<!ELEMENT byte-count (#PCDATA)>

<!ELEMENT counter (counter-name | byte-count | packet-count)*>

<!ELEMENT counter-name (#PCDATA)>

<!ELEMENT destination-address (#PCDATA)>

<!ELEMENT filter-information (filter-name | counter | policer)*>

<!ELEMENT filter-name (#PCDATA)>

<!ELEMENT firewall-information (filter-information)*>

<!ELEMENT firewall-log-information (log-information)*>

<!ELEMENT icmp-code (#PCDATA)>

<!ELEMENT icmp-type (#PCDATA)>

<!ELEMENT interface-name (#PCDATA)>

<!ELEMENT log-information (time | filter-name | action-name | interface-name | protocol-name |
source-address | destination-address | packet-length | icmp-type | icmp-code)*>
<!ATTLIST log-information junos:style CDATA #IMPLIED>

<!ELEMENT packet-count (#PCDATA)>

<!ELEMENT packet-length (#PCDATA)>

<!ELEMENT policer (policer-name | packet-count)*>

<!ELEMENT policer-name (#PCDATA)>
```

```
<!ELEMENT protocol-name (#PCDATA)>

<!ELEMENT source-address (#PCDATA)>

<!ELEMENT time (#PCDATA)>
```

Chapter 12

DTD for Forwarding and Routing Table Response Tags

This chapter contains the XML document type definition (DTD) called junos-rtinfo.dtd, which lists the tags returned by the JUNOScript server to describe forwarding and routing table information. The associated Extensible Markup Language (XML) namespace is http://xml.juniper.net/junos/5.5R1/junos-rtinfo. To review reference pages for the tags, see "Summary of Forwarding and Routing Table Response Tags" on page 133.

```
<!-- Copyright (c) 2000-2002, Juniper Networks, Inc. -->
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<!-- junos-rtinfo.dtd -->

<!ELEMENT address-family (#PCDATA)>

<!ELEMENT address-family-number (#PCDATA)>

<!ELEMENT destination-type (#PCDATA)>

<!ELEMENT forwarding-table-information (route-table)*>

<!ELEMENT nh (to | nh-type | nh-index | nh-reference-count | via | nh-weight)*>

<!ELEMENT nh-index (#PCDATA)>

<!ELEMENT nh-reference-count (#PCDATA)>

<!ELEMENT nh-type (#PCDATA)>

<!ELEMENT nh-weight (#PCDATA)>

<!ELEMENT route-count (#PCDATA)>

<!ELEMENT route-flags (#PCDATA)>

<!ELEMENT route-reference-count (#PCDATA)>

<!ELEMENT route-table (table-name | route-table-deleted | address-family | address-family-number |
rt-entry | route-table-summary)*>

<!ELEMENT route-table-deleted EMPTY>

<!ELEMENT route-table-summary (route-table-type | route-count)*>

<!ELEMENT route-table-type (#PCDATA)>

<!ELEMENT rpf-information (via)*>

<!ELEMENT rt-destination (#PCDATA)>
```

```
<!ELEMENT rt-entry (rt-destination | destination-type | route-reference-count | route-flags | nh |
rpf-information)*>
<!ATTLIST rt-entry junos:style CDATA #IMPLIED>

<!ELEMENT table-name (#PCDATA)>

<!ELEMENT to (#PCDATA)>

<!ELEMENT via (#PCDATA)>
```

Chapter 13
DTD for Interface Response Tags

This chapter contains the document type definition (DTD) called junos-interface.dtd, which lists the tags returned by the JUNOScript server to describe router interfaces. The associated Extensible Markup Language (XML) namespace is http://xml.juniper.net/junos/5.5R1/junos-interface. To review reference pages for the tags, see "Summary of Interface Response Tags" on page 135.

```
<!-- Copyright (c) 2000-2002, Juniper Networks, Inc. -->
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<!-- junos-interface.dtd -->

<!ELEMENT active-alarms (type | interface-alarms)*>

<!ELEMENT active-bundle-links (#PCDATA)>

<!ELEMENT active-defects (type | interface-alarms)*>

<!ELEMENT address-family (address-family-name | multilink-bundle-name | as-bundle-name |
ae-bundle-name | es-sa-name | es-sa-fail-count | es-sa-xmt-seq-num | es-sa-recv-seq-num | mtu |
address-family-flags | generation | route-table | filter-information | policer-information | interface-address
| route-rpf-statistics | destination-class-statistics | source-class-statistics)*>

<!ELEMENT address-family-flags (ifff-none | ifff-primary | ifff-redirects | ifff-no-redirects | ifff-hard-down |
ifff-down | ifff-up | ifff-func1 | ifff-func2 | ifff-is-primary | ifff-transit-options-ttl-exceeded |
ifff-dst-class-usage | ifff-src-class-input | ifff-src-class-output | ifff-rpf-check | ifff-rpf-loose-mode |
generic-value)*>

<!ELEMENT address-family-name (#PCDATA)>

<!ELEMENT admin-status (#PCDATA)>
<!ATTLIST admin-status junos:format CDATA #IMPLIED>

<!ELEMENT ae-bundle-name (#PCDATA)>

<!ELEMENT aged-packets (#PCDATA)>

<!ELEMENT alarm-not-present EMPTY>

<!ELEMENT alternate-physical-address (#PCDATA)>

<!ELEMENT as-bundle-name (#PCDATA)>

<!ELEMENT atm-defects (media-alarm)*>

<!ELEMENT atm-e3-framing (#PCDATA)>

<!ELEMENT atm-encapsulation (#PCDATA)>
```

```
<!ELEMENT atm-hcs-state (#PCDATA)>

<!ELEMENT atm-information (plcp-defects | atm-defects | plcp-statistics | atm-hcs-state | atm-loss-of-cell
| atm-statistics)*>

<!ELEMENT atm-line-build-out (#PCDATA)>

<!ELEMENT atm-loss-of-cell (#PCDATA)>

<!ELEMENT atm-statistics (uncorrectable-hcs-errors | correctable-hcs-errors | tx-cell-fifo-overruns |
rx-cell-fifo-overruns | rx-cell-fifo-underruns | rx-cell-count | tx-cell-count | tx-idle-cell-count | vc-queue-drops
| no-buffers | length-errors | timeouts | rx-invalid-vcs | bad-crcs | oam-cell-no-buffers)*>

<!ELEMENT atm-tm-cbr EMPTY>

<!ELEMENT atm-tm-vbr EMPTY>

<!ELEMENT autonegotiation-status (#PCDATA)>

<!ELEMENT bad-crcs (#PCDATA)>

<!ELEMENT bad-hardware-length-count (#PCDATA)>

<!ELEMENT bad-packet-length-count (#PCDATA)>

<!ELEMENT bad-protocol-count (#PCDATA)>

<!ELEMENT bad-protocol-length-count (#PCDATA)>

<!ELEMENT bandwidth (#PCDATA)>

<!ELEMENT bipe-count (#PCDATA)>

<!ELEMENT bipe-seconds (#PCDATA)>

<!ELEMENT bundle (fragments | packets)*>

<!ELEMENT bundle-class (#PCDATA)>

<!ELEMENT burst (#PCDATA)>

<!ELEMENT cam-destination-filter-count (#PCDATA)>

<!ELEMENT cam-source-filter-count (#PCDATA)>

<!ELEMENT carrier-transitions (#PCDATA)>

<!ELEMENT cds1-information (interface-tx-queue)*>

<!ELEMENT chap-state (#PCDATA)>

<!ELEMENT clocking (#PCDATA)>

<!ELEMENT coc12-information (interface-tx-queue)*>

<!ELEMENT control-memory-error (#PCDATA)>

<!ELEMENT controller (name)*>
<!ATTLIST controller junos:style CDATA #IMPLIED>

<!ELEMENT correctable-hcs-errors (#PCDATA)>
```

```
<!ELEMENT cos-information (cos-queue-config)*>

<!ELEMENT cos-queue-bandwidth (#PCDATA)>

<!ELEMENT cos-queue-bandwidth-bps (#PCDATA)>

<!ELEMENT cos-queue-buffer (#PCDATA)>

<!ELEMENT cos-queue-buffer-bytes (#PCDATA)>

<!ELEMENT cos-queue-config (cos-queue-number | cos-queue-forwarding-class | cos-queue-bandwidth |
cos-queue-bandwidth-bps | cos-queue-buffer | cos-queue-buffer-bytes | cos-queue-priority |
cos-queue-limit)*>

<!ELEMENT cos-queue-forwarding-class (#PCDATA)>

<!ELEMENT cos-queue-limit (#PCDATA)>

<!ELEMENT cos-queue-number (#PCDATA)>

<!ELEMENT cos-queue-priority (#PCDATA)>

<!ELEMENT crc (#PCDATA)>

<!ELEMENT ct3-information (interface-tx-queue)*>

<!ELEMENT current-differential-delay (#PCDATA)>

<!ELEMENT current-physical-address (#PCDATA)>

<!ELEMENT data-memory-error (#PCDATA)>

<!ELEMENT dcu-class-bytes (#PCDATA)>

<!ELEMENT dcu-class-name (#PCDATA)>

<!ELEMENT dcu-class-packets (#PCDATA)>

<!ELEMENT denied-count (#PCDATA)>

<!ELEMENT description (#PCDATA)>

<!ELEMENT destination-class-statistics (dcu-class-name | dcu-class-packets | dcu-class-bytes)*>

<!ELEMENT destination-mask (#PCDATA)>

<!ELEMENT destination-slot (#PCDATA)>

<!ELEMENT disabled-bundle-links (#PCDATA)>

<!ELEMENT dlci (#PCDATA)>

<!ELEMENT down EMPTY>

<!ELEMENT down-count (#PCDATA)>

<!ELEMENT down-hold-time (#PCDATA)>

<!ELEMENT down-time (#PCDATA)>

<!ELEMENT drop-timeout (#PCDATA)>
```

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<!ELEMENT dropped-count (#PCDATA)>

<!ELEMENT ds1-alarm-ais EMPTY>

<!ELEMENT ds1-alarm-lof EMPTY>

<!ELEMENT ds1-alarm-los EMPTY>

<!ELEMENT ds1-alarm-ylw EMPTY>

<!ELEMENT ds1-bert-algorithm (#PCDATA)>

<!ELEMENT ds1-bert-bit-count (#PCDATA)>

<!ELEMENT ds1-bert-elapsed (#PCDATA)>

<!ELEMENT ds1-bert-error-bit-count (#PCDATA)>

<!ELEMENT ds1-bert-error-rate (#PCDATA)>

<!ELEMENT ds1-bert-induced-error-rate (#PCDATA)>

<!ELEMENT ds1-bert-information (ds1-bert-period | ds1-bert-elapsed | ds1-bert-status |
ds1-bert-algorithm | ds1-bert-error-rate | ds1-bert-induced-error-rate | ds1-bert-bit-count |
ds1-bert-error-bit-count | ds1-bert-los-status | ds1-bert-los-seconds)*>

<!ELEMENT ds1-bert-los-seconds (#PCDATA)>

<!ELEMENT ds1-bert-los-status (#PCDATA)>

<!ELEMENT ds1-bert-period (#PCDATA)>

<!ELEMENT ds1-bert-status (#PCDATA)>

<!ELEMENT ds1-buildout (#PCDATA)>

<!ELEMENT ds1-byte-encoding (#PCDATA)>

<!ELEMENT ds1-data-inversion (#PCDATA)>

<!ELEMENT ds1-framing (#PCDATA)>

<!ELEMENT ds1-line-encoding (#PCDATA)>

<!ELEMENT ds1-timeslots (#PCDATA)>

<!ELEMENT ds3-alarm-ais EMPTY>

<!ELEMENT ds3-alarm-exz EMPTY>

<!ELEMENT ds3-alarm-ferf EMPTY>

<!ELEMENT ds3-alarm-idle EMPTY>

<!ELEMENT ds3-alarm-lcv EMPTY>

<!ELEMENT ds3-alarm-lof EMPTY>

<!ELEMENT ds3-alarm-los EMPTY>

<!ELEMENT ds3-alarm-pll EMPTY>
```

```
<!ELEMENT ds3-alarm-ylw EMPTY>

<!ELEMENT ds3-bert-algorithm (#PCDATA)>

<!ELEMENT ds3-bert-bit-count (#PCDATA)>

<!ELEMENT ds3-bert-bit-count-overflow (#PCDATA)>

<!ELEMENT ds3-bert-elapsed (#PCDATA)>

<!ELEMENT ds3-bert-error-bit-count (#PCDATA)>

<!ELEMENT ds3-bert-error-bit-count-overflow (#PCDATA)>

<!ELEMENT ds3-bert-error-rate (#PCDATA)>

<!ELEMENT ds3-bert-induced-error-rate (#PCDATA)>

<!ELEMENT ds3-bert-information (ds3-bert-period | ds3-bert-elapsed | ds3-bert-status |
ds3-bert-algorithm | ds3-bert-error-rate | ds3-bert-induced-error-rate | ds3-bert-bit-count |
ds3-bert-bit-count-overflow | ds3-bert-error-bit-count | ds3-bert-error-bit-count-overflow |
ds3-bert-los-status | ds3-bert-los-count | ds3-bert-los-seconds)*>

<!ELEMENT ds3-bert-los-count (#PCDATA)>

<!ELEMENT ds3-bert-los-seconds (#PCDATA)>

<!ELEMENT ds3-bert-los-status (#PCDATA)>

<!ELEMENT ds3-bert-period (#PCDATA)>

<!ELEMENT ds3-bert-status (#PCDATA)>

<!ELEMENT ds3-mode (#PCDATA)>

<!ELEMENT dsu-compatibility-mode (#PCDATA)>

<!ELEMENT dsu-information (dsu-compatibility-mode | dsu-scrambler | dsu-subrate | feac-loopback |
feac-response | feac-count)*>

<!ELEMENT dsu-scrambler (#PCDATA)>

<!ELEMENT dsu-subrate (#PCDATA)>

<!ELEMENT e3-bert-algorithm (#PCDATA)>

<!ELEMENT e3-bert-bit-count (#PCDATA)>

<!ELEMENT e3-bert-bit-count-overflow (#PCDATA)>

<!ELEMENT e3-bert-elapsed (#PCDATA)>

<!ELEMENT e3-bert-error-bit-count (#PCDATA)>

<!ELEMENT e3-bert-error-bit-count-overflow (#PCDATA)>

<!ELEMENT e3-bert-error-rate (#PCDATA)>

<!ELEMENT e3-bert-induced-error-rate (#PCDATA)>
```

```
<!ELEMENT e3-bert-information (e3-bert-period | e3-bert-elapsed | e3-bert-status | e3-bert-algorithm |
e3-bert-error-rate | e3-bert-induced-error-rate | e3-bert-bit-count | e3-bert-bit-count-overflow |
e3-bert-error-bit-count | e3-bert-error-bit-count-overflow | e3-bert-los-status | e3-bert-los-count |
e3-bert-los-seconds)*>

<!ELEMENT e3-bert-los-count (#PCDATA)>

<!ELEMENT e3-bert-los-seconds (#PCDATA)>

<!ELEMENT e3-bert-los-status (#PCDATA)>

<!ELEMENT e3-bert-period (#PCDATA)>

<!ELEMENT e3-bert-status (#PCDATA)>

<!ELEMENT e3-framing (#PCDATA)>

<!ELEMENT encapsulation (#PCDATA)>

<!ELEMENT es-ifd-stats (total-anti-replay-count | total-authentication-failure-count)*>

<!ELEMENT es-sa-fail-count (#PCDATA)>

<!ELEMENT es-sa-name (#PCDATA)>

<!ELEMENT es-sa-recv-seq-num (#PCDATA)>

<!ELEMENT es-sa-xmt-seq-num (#PCDATA)>

<!ELEMENT ethernet-alarm-link-down EMPTY>

<!ELEMENT ethernet-autonegotiation (autonegotiation-status | link-partner-status | link-partner-reason |
link-partner-duplexity | link-partner-speed | flow-control)*>

<!ELEMENT ethernet-filter-statistics (input-packets | input-reject-count |
input-reject-destination-address-count | input-reject-source-address-count | output-packets |
output-packet-pad-count | output-packet-error-count | cam-destination-filter-count |
cam-source-filter-count)*>
<!ATTLIST ethernet-filter-statistics junos:style CDATA #IMPLIED>

<!ELEMENT ethernet-mac-statistics (input-bytes | input-packets | input-unicasts | input-broadcasts |
input-multicasts | input-crc-errors | input-fifo-errors | input-mac-control-frames | input-mac-pause-frames |
input-oversized-frames | input-jabber-frames | input-fragment-frames | input-vlan-tagged-frames |
input-code-violations | input-policer-frame-drops | input-policer-byte-drops | output-bytes | output-packets
| output-unicasts | output-broadcasts | output-multicasts | output-crc-errors | output-fifo-errors |
output-mac-control-frames | output-mac-pause-frames)*>
<!ATTLIST ethernet-mac-statistics junos:style CDATA #IMPLIED>

<!ELEMENT feac-count (#PCDATA)>

<!ELEMENT feac-loopback (#PCDATA)>

<!ELEMENT feac-response (#PCDATA)>

<!ELEMENT febe-count (#PCDATA)>

<!ELEMENT febe-seconds (#PCDATA)>

<!ELEMENT ferr-count (#PCDATA)>

<!ELEMENT ferr-seconds (#PCDATA)>
```

```
<!ELEMENT filter-family (#PCDATA)>

<!ELEMENT filter-information (filter-family | filter-input | filter-output)*>

<!ELEMENT filter-input (#PCDATA)>

<!ELEMENT filter-output (#PCDATA)>

<!ELEMENT flow-control (#PCDATA)>

<!ELEMENT forwarding-class-name (#PCDATA)>

<!ELEMENT fragment-buffer-overflow (#PCDATA)>

<!ELEMENT fragment-drop-bytes (#PCDATA)>

<!ELEMENT fragment-drops (#PCDATA)>

<!ELEMENT fragment-threshold (#PCDATA)>

<!ELEMENT fragment-timeout (#PCDATA)>

<!ELEMENT fragments (input-frames | input-fps | input-bytes | input-bps | output-frames | output-fps |
output-bytes | output-bps)*>

<!ELEMENT framing-errors (#PCDATA)>

<!ELEMENT generation (#PCDATA)>

<!ELEMENT generic-value (#PCDATA)>

<!ELEMENT hardware-physical-address (#PCDATA)>

<!ELEMENT hdlc-giant-threshold (#PCDATA)>

<!ELEMENT hdlc-information (hdlc-rx-bucket-state | hdlc-rx-bit-rate | hdlc-rx-threshold | hdlc-tx-bit-rate |
hdlc-tx-bucket-state | hdlc-tx-threshold | hdlc-giant-threshold | hdlc-runt-threshold)*>

<!ELEMENT hdlc-runt-threshold (#PCDATA)>

<!ELEMENT hdlc-rx-bit-rate (#PCDATA)>

<!ELEMENT hdlc-rx-bucket-state (#PCDATA)>

<!ELEMENT hdlc-rx-threshold (#PCDATA)>

<!ELEMENT hdlc-tx-bit-rate (#PCDATA)>

<!ELEMENT hdlc-tx-bucket-state (#PCDATA)>

<!ELEMENT hdlc-tx-threshold (#PCDATA)>

<!ELEMENT hs-link-crc-errors (#PCDATA)>

<!ELEMENT hs-link-fifo-overflows (#PCDATA)>

<!ELEMENT hs-link-fifo-underflows (#PCDATA)>

<!ELEMENT if-config-flags (iff-none | iff-hardware-down | iff-down | iff-up | iff-admin-down | iff-admin-up |
iff-link-down | iff-device-down | iff-point-to-point | iff-point-to-multipoint | iff-multiaccess | iff-change |
iff-inverse-arp | iff-no-multicast | iff-multicast | iff-promiscuous | iff-all-multicast | iff-snmp-traps |
iff-rx-passive | iff-tx-passive | iff-ccc-down)*>
```

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<!ELEMENT if-device-flags (ifdf-none | ifdf-present | ifdf-running | ifdf-duplex | ifdf-down | ifdf-no-carrier |
ifdf-error1 | ifdf-error2 | ifdf-no-multicast | ifdf-loopback | ifdf-quench | ifdf-recv-all-multicasts |
ifdf-promiscuous | ifdf-link-layer-down | ifdf-loop-detected | ifdf-pfe-gone)*>

<!ELEMENT if-flow-control (#PCDATA)>

<!ELEMENT if-media-flags (ifmf-none | ifmf-autoselect | ifmf-keepalives | ifmf-no-keepalives | ifmf-give-up
| ifmf-loose-lcp | ifmf-loose-ncp | ifmf-loose-lmi | ifmf-dce | ifmf-dte)*>

<!ELEMENT if-type (#PCDATA)>

<!ELEMENT ifa-broadcast (#PCDATA)>

<!ELEMENT ifa-destination (#PCDATA)>

<!ELEMENT ifa-flags (ifaf-none | ifaf-primary | ifaf-preferred | ifaf-down | ifaf-current-default |
ifaf-current-preferred | ifaf-current-primary | generic-value)*>

<!ELEMENT ifa-local (#PCDATA)>

<!ELEMENT ifaf-current-default EMPTY>

<!ELEMENT ifaf-current-preferred EMPTY>

<!ELEMENT ifaf-current-primary EMPTY>

<!ELEMENT ifaf-down EMPTY>

<!ELEMENT ifaf-none EMPTY>

<!ELEMENT ifaf-preferred EMPTY>

<!ELEMENT ifaf-primary EMPTY>

<!ELEMENT ifdf-down EMPTY>

<!ELEMENT ifdf-duplex EMPTY>

<!ELEMENT ifdf-error1 EMPTY>

<!ELEMENT ifdf-error2 EMPTY>

<!ELEMENT ifdf-link-layer-down EMPTY>

<!ELEMENT ifdf-loop-detected EMPTY>

<!ELEMENT ifdf-loopback EMPTY>

<!ELEMENT ifdf-no-carrier EMPTY>

<!ELEMENT ifdf-no-multicast EMPTY>

<!ELEMENT ifdf-none EMPTY>

<!ELEMENT ifdf-pfe-gone EMPTY>

<!ELEMENT ifdf-present EMPTY>

<!ELEMENT ifdf-promiscuous EMPTY>

<!ELEMENT ifdf-quench EMPTY>
```

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<!ELEMENT ifdf-recv-all-multicasts EMPTY>

<!ELEMENT ifdf-running EMPTY>

<!ELEMENT iff-admin-down EMPTY>

<!ELEMENT iff-admin-up EMPTY>

<!ELEMENT iff-all-multicast EMPTY>

<!ELEMENT iff-ccc-down EMPTY>

<!ELEMENT iff-change EMPTY>

<!ELEMENT iff-device-down EMPTY>

<!ELEMENT iff-down EMPTY>

<!ELEMENT iff-hardware-down EMPTY>

<!ELEMENT iff-inverse-arp EMPTY>

<!ELEMENT iff-link-down EMPTY>

<!ELEMENT iff-multiaccess EMPTY>

<!ELEMENT iff-multicast EMPTY>

<!ELEMENT iff-no-multicast EMPTY>

<!ELEMENT iff-none EMPTY>

<!ELEMENT iff-point-to-multipoint EMPTY>

<!ELEMENT iff-point-to-point EMPTY>

<!ELEMENT iff-promiscuous EMPTY>

<!ELEMENT iff-rx-passive EMPTY>

<!ELEMENT iff-snmp-traps EMPTY>

<!ELEMENT iff-tx-passive EMPTY>

<!ELEMENT iff-up EMPTY>

<!ELEMENT ifff-down EMPTY>

<!ELEMENT ifff-dst-class-usage EMPTY>

<!ELEMENT ifff-func1 EMPTY>

<!ELEMENT ifff-func2 EMPTY>

<!ELEMENT ifff-hard-down EMPTY>

<!ELEMENT ifff-is-primary EMPTY>

<!ELEMENT ifff-no-redirects EMPTY>

<!ELEMENT ifff-none EMPTY>
```

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<!ELEMENT ifff-primary EMPTY>

<!ELEMENT ifff-redirects EMPTY>

<!ELEMENT ifff-rpf-check EMPTY>

<!ELEMENT ifff-rpf-loose-mode EMPTY>

<!ELEMENT ifff-src-class-input EMPTY>

<!ELEMENT ifff-src-class-output EMPTY>

<!ELEMENT ifff-transit-options-ttl-exceeded EMPTY>

<!ELEMENT ifff-up EMPTY>

<!ELEMENT ifmf-autoselect EMPTY>

<!ELEMENT ifmf-dce EMPTY>

<!ELEMENT ifmf-dte EMPTY>

<!ELEMENT ifmf-give-up EMPTY>

<!ELEMENT ifmf-keepalives EMPTY>

<!ELEMENT ifmf-loose-lcp EMPTY>

<!ELEMENT ifmf-loose-lmi EMPTY>

<!ELEMENT ifmf-loose-ncp EMPTY>

<!ELEMENT ifmf-no-keepalives EMPTY>

<!ELEMENT ifmf-none EMPTY>

<!ELEMENT ifvc-active EMPTY>

<!ELEMENT ifvc-ccc-down EMPTY>

<!ELEMENT ifvc-closed EMPTY>

<!ELEMENT ifvc-down EMPTY>

<!ELEMENT ifvc-flags (ifvc-down | ifvc-none | ifvc-active | ifvc-closed | ifvc-inverse-arp | ifvc-ilmi | ifvc-oam |
ifvc-shaping | ifvc-passiveoam | ifvc-multicast | ifvc-ccc-down)*>

<!ELEMENT ifvc-ilmi EMPTY>

<!ELEMENT ifvc-inverse-arp EMPTY>

<!ELEMENT ifvc-multicast EMPTY>

<!ELEMENT ifvc-multipoint-destination (multipoint-address)*>

<!ELEMENT ifvc-none EMPTY>

<!ELEMENT ifvc-oam EMPTY>

<!ELEMENT ifvc-passiveoam EMPTY>

<!ELEMENT ifvc-shaping EMPTY>
```

```
<!ELEMENT ifvp-active EMPTY>

<!ELEMENT ifvp-closed EMPTY>

<!ELEMENT ifvp-down EMPTY>

<!ELEMENT ifvp-flags (ifvp-down | ifvp-none | ifvp-active | ifvp-closed | ifvp-oam | ifvp-shaping |
ifvp-passiveoam | ifvp-tunnel)*>

<!ELEMENT ifvp-none EMPTY>

<!ELEMENT ifvp-oam EMPTY>

<!ELEMENT ifvp-passiveoam EMPTY>

<!ELEMENT ifvp-shaping EMPTY>

<!ELEMENT ifvp-tunnel EMPTY>

<!ELEMENT ih-parent (#PCDATA)>

<!ELEMENT illegal-rx-packets (#PCDATA)>

<!ELEMENT in-arp-statistics (received-count | transmitted-count | denied-count |
operation-not-supported-count | bad-packet-length-count | bad-protocol-count | bad-protocol-length-count
| bad-hardware-length-count | dropped-count | last-received | last-transmitted)*>

<!ELEMENT ingress-rate-limit (#PCDATA)>

<!ELEMENT input-bps (#PCDATA)>

<!ELEMENT input-broadcasts (#PCDATA)>

<!ELEMENT input-bucket-drops (#PCDATA)>

<!ELEMENT input-bytes (#PCDATA)>

<!ELEMENT input-code-violations (#PCDATA)>

<!ELEMENT input-crc-errors (#PCDATA)>

<!ELEMENT input-disabled-bundle (#PCDATA)>

<!ELEMENT input-discards (#PCDATA)>

<!ELEMENT input-drops (#PCDATA)>

<!ELEMENT input-error-count (#PCDATA)>

<!ELEMENT input-error-frames (#PCDATA)>

<!ELEMENT input-error-list (input-errors | input-drops | invalid-vcs | framing-errors | input-runts |
input-giants | input-bucket-drops | input-discards | input-l3-incompletes | input-l2-channel-errors |
input-l2-mismatch-timeouts | input-fifo-errors | hs-link-crc-errors | hs-link-fifo-overflows | sram-errors)*>

<!ELEMENT input-errors (#PCDATA)>

<!ELEMENT input-fifo-errors (#PCDATA)>

<!ELEMENT input-fps (#PCDATA)>

<!ELEMENT input-fragment-frames (#PCDATA)>
```

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<!ELEMENT input-frames (#PCDATA)>

<!ELEMENT input-giants (#PCDATA)>

<!ELEMENT input-jabber-frames (#PCDATA)>

<!ELEMENT input-l2-channel-errors (#PCDATA)>

<!ELEMENT input-l2-mismatch-timeouts (#PCDATA)>

<!ELEMENT input-l3-incompletes (#PCDATA)>

<!ELEMENT input-mac-control-frames (#PCDATA)>

<!ELEMENT input-mac-pause-frames (#PCDATA)>

<!ELEMENT input-multicasts (#PCDATA)>

<!ELEMENT input-oversized-frames (#PCDATA)>

<!ELEMENT input-packets (#PCDATA)>

<!ELEMENT input-policer-byte-drops (#PCDATA)>

<!ELEMENT input-policer-frame-drops (#PCDATA)>

<!ELEMENT input-pps (#PCDATA)>

<!ELEMENT input-reject-count (#PCDATA)>

<!ELEMENT input-reject-destination-address-count (#PCDATA)>

<!ELEMENT input-reject-source-address-count (#PCDATA)>

<!ELEMENT input-runts (#PCDATA)>

<!ELEMENT input-unicasts (#PCDATA)>

<!ELEMENT input-vlan-tagged-frames (#PCDATA)>

<!ELEMENT interface-address (ifa-flags | generation | ifa-destination | ifa-local | ifa-broadcast)*>
<!ATTLIST interface-address heading CDATA #IMPLIED>

<!ELEMENT interface-alarms (alarm-not-present | sonet-alarm-lol | sonet-alarm-pll | sonet-alarm-lof |
sonet-alarm-los | sonet-alarm-sef | sonet-alarm-lais | sonet-alarm-pais | sonet-alarm-lop |
sonet-alarm-berr-sd | sonet-alarm-berr-sf | sonet-alarm-lrdi | sonet-alarm-prdi | sonet-alarm-rei |
sonet-alarm-uneq | sonet-alarm-pmis | sonet-alarm-loc | sdh-alarm-lol | sdh-alarm-pll | sdh-alarm-lof |
sdh-alarm-los | sdh-alarm-oof | sdh-alarm-msais | sdh-alarm-hpais | sdh-alarm-lop | sdh-alarm-berr-sd |
sdh-alarm-berr-sf | sdh-alarm-msferf | sdh-alarm-hpferf | sdh-alarm-hpfebe | sdh-alarm-hpuneq |
sdh-alarm-hpplm | sdh-alarm-loc | ds3-alarm-pll | ds3-alarm-ais | ds3-alarm-lof | ds3-alarm-los |
ds3-alarm-lcv | ds3-alarm-exz | ds3-alarm-ferf | ds3-alarm-ylw | ds3-alarm-idle | ds1-alarm-ais |
ds1-alarm-lof | ds1-alarm-los | ds1-alarm-ylw | ethernet-alarm-link-down | generic-value)*>

<!ELEMENT interface-filter-information (physical-interface | logical-interface)*>
<!ATTLIST interface-filter-information heading CDATA #IMPLIED>
<!ATTLIST interface-filter-information junos:style CDATA #IMPLIED>

<!ELEMENT interface-flapped (#PCDATA)>

<!ELEMENT interface-information (physical-interface | logical-interface | controller)*>
<!ATTLIST interface-information junos:style CDATA #IMPLIED>
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<!ELEMENT interface-policer-information (physical-interface | logical-interface)*>
<!ATTLIST interface-policer-information heading CDATA #IMPLIED>
<!ATTLIST interface-policer-information junos:style CDATA #IMPLIED>

<!ELEMENT interface-tx-queue (name | bandwidth | wrr | output-packets | output-bytes | output-drops |
output-drops-bytes | output-errors)*>

<!ELEMENT interval (range | media-alarm)*>

<!ELEMENT interval-information (interval)*>

<!ELEMENT invalid-vcs (#PCDATA)>

<!ELEMENT keepalive-config (keepalive-interval | keepalive-up-count | keepalive-down-count)*>

<!ELEMENT keepalive-down-count (#PCDATA)>

<!ELEMENT keepalive-input-count (#PCDATA)>

<!ELEMENT keepalive-input-time (#PCDATA)>

<!ELEMENT keepalive-interval (#PCDATA)>

<!ELEMENT keepalive-lmi-descriptor (#PCDATA)>

<!ELEMENT keepalive-output-count (#PCDATA)>

<!ELEMENT keepalive-output-time (#PCDATA)>

<!ELEMENT keepalive-statistics (keepalive-lmi-descriptor | keepalive-input-count | keepalive-input-time |
keepalive-output-count | keepalive-output-time)*>
<!ATTLIST keepalive-statistics junos:style CDATA #IMPLIED>

<!ELEMENT keepalive-up-count (#PCDATA)>

<!ELEMENT lag-bundle (input-packets | input-pps | input-bytes | input-bps | output-packets | output-pps |
output-bytes | output-bps)*>

<!ELEMENT lag-link (name | down | input-packets | input-pps | input-bytes | input-bps | output-packets |
output-pps | output-bytes | output-bps)*>

<!ELEMENT lag-marker (name | marker-rx-packets | marker-response-tx-packets | unknown-rx-packets |
illegal-rx-packets)*>

<!ELEMENT lag-traffic-statistics (lag-bundle | lag-link | lag-marker)*>

<!ELEMENT last-down-time (#PCDATA)>

<!ELEMENT last-received (#PCDATA)>

<!ELEMENT last-transmitted (#PCDATA)>

<!ELEMENT lcp-state (#PCDATA)>

<!ELEMENT length-errors (#PCDATA)>

<!ELEMENT link (name | down | input-frames | input-fps | input-bytes | input-bps | output-frames |
output-fps | output-bytes | output-bps)*>

<!ELEMENT link-address (#PCDATA)>

<!ELEMENT link-level-type (#PCDATA)>
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<!ELEMENT link-partner-duplexity (#PCDATA)>

<!ELEMENT link-partner-reason (#PCDATA)>

<!ELEMENT link-partner-speed (#PCDATA)>

<!ELEMENT link-partner-status (#PCDATA)>

<!ELEMENT link-type (#PCDATA)>

<!ELEMENT lip-ack-retries (#PCDATA)>

<!ELEMENT lip-ack-timer (#PCDATA)>

<!ELEMENT lip-header-string (#PCDATA)>

<!ELEMENT lip-hello-timer (#PCDATA)>

<!ELEMENT lmi-dce-config (lmi-type | lmi-n392dce | lmi-n393dce | lmi-t392dce)*>

<!ELEMENT lmi-dte-config (lmi-type | lmi-n391dte | lmi-n392dte | lmi-n393dte | lmi-t391dte)*>

<!ELEMENT lmi-n391dte (#PCDATA)>

<!ELEMENT lmi-n392dce (#PCDATA)>

<!ELEMENT lmi-n392dte (#PCDATA)>

<!ELEMENT lmi-n393dce (#PCDATA)>

<!ELEMENT lmi-n393dte (#PCDATA)>

<!ELEMENT lmi-t391dte (#PCDATA)>

<!ELEMENT lmi-t392dce (#PCDATA)>

<!ELEMENT lmi-type (#PCDATA)>

<!ELEMENT local-index (#PCDATA)>

<!ELEMENT local-traffic-statistics (input-bytes | output-bytes | input-bps | output-bps | input-packets |
output-packets | input-pps | output-pps)*>

<!ELEMENT logical-interface (name | admin-status | oper-status | local-index | snmp-index | generation |
description | if-config-flags | link-address | encapsulation | logical-interface-bandwidth |
multilink-bundle-options | multilink-bundle-errors | multilink-traffic-statistics | traffic-statistics |
local-traffic-statistics | transit-traffic-statistics | virtual-circuit-information | filter-information |
policer-information | address-family | in-arp-statistics | lag-traffic-statistics)*>

<!ELEMENT logical-interface-bandwidth (#PCDATA)>

<!ELEMENT loopback (#PCDATA)>

<!ELEMENT ls-mfr-bundle-options (mfr-device-type | mfr-mrru | red-differential-delay |
red-differential-delay-action | yellow-differential-delay | lip-hello-timer | lip-ack-timer | lip-ack-retries |
bundle-class | mfr-drop-timeout | mfr-lmi-type | mfr-fragment-threshold | mfr-minimum-links | t391 | t392
| n391 | n392 | n393)*>

<!ELEMENT ls-mfr-traffic-statistics (bundle | mfr-link-info | mfr-link)*>

<!ELEMENT marker-response-tx-packets (#PCDATA)>
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<!ELEMENT marker-rx-packets (#PCDATA)>

<!ELEMENT media-alarm (media-alarm-name | media-alarm-seconds | media-alarm-count |
media-alarm-state)*>

<!ELEMENT media-alarm-count (#PCDATA)>

<!ELEMENT media-alarm-name (#PCDATA)>

<!ELEMENT media-alarm-seconds (#PCDATA)>

<!ELEMENT media-alarm-state (#PCDATA)>

<!ELEMENT media-information (media-alarm | ds1-timeslots | ds1-line-encoding | ds1-byte-encoding |
ds1-data-inversion | ds1-buildout | media-type)*>
<!ATTLIST media-information junos:style CDATA #IMPLIED>

<!ELEMENT media-type (#PCDATA)>

<!ELEMENT mfr-device-type (#PCDATA)>

<!ELEMENT mfr-drop-timeout (#PCDATA)>

<!ELEMENT mfr-fragment-threshold (#PCDATA)>

<!ELEMENT mfr-link (name | down | input-frames | input-fps | input-bytes | input-bps | output-frames |
output-fps | output-bytes | output-bps | lip-header-string | current-differential-delay |
recent-high-differential-delay | over-red-differential | over-yellow-differential | rcv-lip-addlink |
rcv-lip-link-ack | rcv-lip-link-rej | rcv-lip-hello | rcv-lip-hello-ack | rcv-lip-link-rem | rcv-lip-rem-ack |
xmt-lip-addlink | xmt-lip-link-ack | xmt-lip-link-rej | xmt-lip-hello | xmt-lip-hello-ack | xmt-lip-link-rem |
xmt-lip-rem-ack)*>

<!ELEMENT mfr-link-info (active-bundle-links | removed-bundle-links | disabled-bundle-links)*>

<!ELEMENT mfr-lmi-type (#PCDATA)>

<!ELEMENT mfr-minimum-links (#PCDATA)>

<!ELEMENT mfr-mrru (#PCDATA)>

<!ELEMENT minimum-links (#PCDATA)>

<!ELEMENT minimum-links-in-aggregate (#PCDATA)>

<!ELEMENT mrru (#PCDATA)>

<!ELEMENT mrru-exceeded (#PCDATA)>

<!ELEMENT mtu (#PCDATA)>

<!ELEMENT multilink-bundle-errors (packet-drops | packet-drop-bytes | fragment-drops |
fragment-drop-bytes | mrru-exceeded | processing-errors)*>

<!ELEMENT multilink-bundle-name (#PCDATA)>

<!ELEMENT multilink-bundle-options (mrru | drop-timeout | sequence-number-format |
fragment-threshold | minimum-links)*>

<!ELEMENT multilink-interface-errors (oversized-frames | input-error-frames | input-disabled-bundle |
output-disabled-bundle | queuing-drops | packet-buffer-overflow | fragment-buffer-overflow |
fragment-timeout | sequence-number-missing | out-of-order-sequence-number |
out-of-range-sequence-number | data-memory-error | control-memory-error)*>
```

```
<!ELEMENT multilink-traffic-statistics (bundle | link)*>

<!ELEMENT multipoint-address (#PCDATA)>

<!ELEMENT n391 (#PCDATA)>

<!ELEMENT n392 (#PCDATA)>

<!ELEMENT n393 (#PCDATA)>

<!ELEMENT name (#PCDATA)>

<!ELEMENT ncp-information (ncp-protocol | ncp-state)*>

<!ELEMENT ncp-protocol (#PCDATA)>

<!ELEMENT ncp-state (#PCDATA)>

<!ELEMENT no-buffers (#PCDATA)>

<!ELEMENT nxds0-information (interface-tx-queue)*>

<!ELEMENT oam-ais-received-count (#PCDATA)>

<!ELEMENT oam-ais-received-last (#PCDATA)>

<!ELEMENT oam-cell-no-buffers (#PCDATA)>

<!ELEMENT oam-loopback-received-count (#PCDATA)>

<!ELEMENT oam-loopback-received-last (#PCDATA)>

<!ELEMENT oam-loopback-transmitted-count (#PCDATA)>

<!ELEMENT oam-loopback-transmitted-last (#PCDATA)>

<!ELEMENT oam-parameters (period | up-count | down-count)*>

<!ELEMENT oam-rdi-received-count (#PCDATA)>

<!ELEMENT oam-rdi-received-last (#PCDATA)>

<!ELEMENT oam-rdi-transmitted-count (#PCDATA)>

<!ELEMENT oam-rdi-transmitted-last (#PCDATA)>

<!ELEMENT oam-statistics (oam-loopback-received-count | oam-loopback-received-last |
oam-loopback-transmitted-count | oam-loopback-transmitted-last | oam-rdi-received-count |
oam-rdi-received-last | oam-rdi-transmitted-count | oam-rdi-transmitted-last | oam-ais-received-count |
oam-ais-received-last | oam-total-transmitted-count | oam-total-received-count)*>

<!ELEMENT oam-total-received-count (#PCDATA)>

<!ELEMENT oam-total-transmitted-count (#PCDATA)>

<!ELEMENT oper-status (#PCDATA)>

<!ELEMENT operation-not-supported-count (#PCDATA)>

<!ELEMENT out-of-order-sequence-number (#PCDATA)>

<!ELEMENT out-of-range-sequence-number (#PCDATA)>
```

```
<!ELEMENT output-bps (#PCDATA)>

<!ELEMENT output-broadcasts (#PCDATA)>

<!ELEMENT output-bytes (#PCDATA)>

<!ELEMENT output-collisions (#PCDATA)>

<!ELEMENT output-crc-errors (#PCDATA)>

<!ELEMENT output-disabled-bundle (#PCDATA)>

<!ELEMENT output-drops (#PCDATA)>

<!ELEMENT output-drops-bytes (#PCDATA)>

<!ELEMENT output-error-count (#PCDATA)>

<!ELEMENT output-error-list (carrier-transitions | output-errors | output-drops | output-collisions |
output-hs-link-fifo-overflows | aged-packets | output-fifo-errors | hs-link-fifo-underflows |
hs-link-crc-errors)*>

<!ELEMENT output-errors (#PCDATA)>

<!ELEMENT output-fifo-errors (#PCDATA)>

<!ELEMENT output-fps (#PCDATA)>

<!ELEMENT output-frames (#PCDATA)>

<!ELEMENT output-hs-link-fifo-overflows (#PCDATA)>

<!ELEMENT output-mac-control-frames (#PCDATA)>

<!ELEMENT output-mac-pause-frames (#PCDATA)>

<!ELEMENT output-multicasts (#PCDATA)>

<!ELEMENT output-packet-error-count (#PCDATA)>

<!ELEMENT output-packet-pad-count (#PCDATA)>

<!ELEMENT output-packets (#PCDATA)>

<!ELEMENT output-pps (#PCDATA)>

<!ELEMENT output-unicasts (#PCDATA)>

<!ELEMENT over-red-differential (#PCDATA)>

<!ELEMENT over-yellow-differential (#PCDATA)>

<!ELEMENT oversized-frames (#PCDATA)>

<!ELEMENT packet-buffer-overflow (#PCDATA)>

<!ELEMENT packet-drop-bytes (#PCDATA)>

<!ELEMENT packet-drops (#PCDATA)>

<!ELEMENT packets (input-frames | input-fps | input-bytes | input-bps | output-frames | output-fps |
output-bytes | output-bps)*>
```

```
<!ELEMENT payload-scrambler (#PCDATA)>

<!ELEMENT peak (#PCDATA)>

<!ELEMENT period (#PCDATA)>

<!ELEMENT pfe-information (destination-slot | destination-mask | stream-number | stream-mask |
plp-byte | plp-byte-count)*>

<!ELEMENT physical-information (#PCDATA)>

<!ELEMENT physical-interface (name | admin-status | oper-status | local-index | snmp-index | generation
| description | if-type | link-level-type | mtu | speed | clocking | sonet-mode | loopback | ih-parent |
atm-line-build-out | atm-encapsulation | atm-e3-framing | sonet-loopback | crc | payload-scrambler |
ingress-rate-limit | source-filtering | if-flow-control | minimum-links-in-aggregate | if-device-flags |
if-config-flags | link-type | if-media-flags | keepalive-config | lmi-dce-config | lmi-dte-config |
queue-counters | keepalive-statistics | lcp-state | ncp-information | chap-state | physical-information |
es-ifd-stats | up-hold-time | down-hold-time | current-physical-address | hardware-physical-address |
alternate-physical-address | interface-flapped | statistics-cleared | traffic-statistics |
multilink-interface-errors | ls-mfr-bundle-options | multilink-bundle-errors | input-error-list |
input-error-count | output-error-list | output-error-count | active-alarms | active-defects | sonet-errors |
sonet-physical-information | sonet-section-information | sonet-line-information | sonet-path-information |
sonet-vt-information | sonet-rx-overhead | sonet-tx-overhead | sonet-rx-path-trace | sonet-tx-path-trace |
media-information | ethernet-mac-statistics | ethernet-filter-statistics | ethernet-autonegotiation |
atm-information | virtual-path-information | ct3-information | coc12-information | cds1-information |
nxds0-information | ds3-mode | e3-framing | ds1-framing | dsu-information | ds3-bert-information |
e3-bert-information | ds1-bert-information | hdlc-information | pfe-information | logical-interface |
cos-information | ls-mfr-traffic-statistics | interval-information)*>

<!ELEMENT plcp-defects (media-alarm)*>

<!ELEMENT plcp-statistics (ferr-count | ferr-seconds | bipe-count | bipe-seconds | febe-count |
febe-seconds)*>

<!ELEMENT plp-byte (#PCDATA)>

<!ELEMENT plp-byte-count (#PCDATA)>

<!ELEMENT policer-family (#PCDATA)>

<!ELEMENT policer-information (policer-family | policer-input | policer-output)*>

<!ELEMENT policer-input (#PCDATA)>

<!ELEMENT policer-output (#PCDATA)>

<!ELEMENT processing-errors (#PCDATA)>

<!ELEMENT queue (queue-number | forwarding-class-name | queue-counters-queued-packets |
queue-counters-queued-bytes | queue-counters-queued-packets-rate | queue-counters-queued-bytes-rate
| queue-counters-trans-packets | queue-counters-trans-bytes | queue-counters-trans-packets-rate |
queue-counters-trans-bytes-rate | queue-counters-tail-drop-packets |
queue-counters-tail-drop-packets-rate | queue-counters-red-packets | queue-counters-red-bytes |
queue-counters-red-packets-rate | queue-counters-red-bytes-rate | queue-counters-red-packets-ln |
queue-counters-red-bytes-ln | queue-counters-red-packets-rate-ln | queue-counters-red-bytes-rate-ln |
queue-counters-red-packets-lt | queue-counters-red-bytes-lt | queue-counters-red-packets-rate-lt |
queue-counters-red-bytes-rate-lt | queue-counters-red-packets-ht | queue-counters-red-bytes-ht |
queue-counters-red-packets-rate-ht | queue-counters-red-bytes-rate-ht | queue-counters-red-packets-hn |
queue-counters-red-bytes-hn | queue-counters-red-packets-rate-hn | queue-counters-red-bytes-rate-hn)*>

<!ELEMENT queue-counters (queue-counters-error-message | queue)*>
<!ATTLIST queue-counters junos:style CDATA #IMPLIED>
```

```
<!ELEMENT queue-counters-error-message (#PCDATA)>
<!ELEMENT queue-counters-queued-bytes (#PCDATA)>
<!ELEMENT queue-counters-queued-bytes-rate (#PCDATA)>
<!ELEMENT queue-counters-queued-packets (#PCDATA)>
<!ELEMENT queue-counters-queued-packets-rate (#PCDATA)>
<!ELEMENT queue-counters-red-bytes (#PCDATA)>
<!ELEMENT queue-counters-red-bytes-hn (#PCDATA)>
<!ELEMENT queue-counters-red-bytes-ht (#PCDATA)>
<!ELEMENT queue-counters-red-bytes-ln (#PCDATA)>
<!ELEMENT queue-counters-red-bytes-lt (#PCDATA)>
<!ELEMENT queue-counters-red-bytes-rate (#PCDATA)>
<!ELEMENT queue-counters-red-bytes-rate-hn (#PCDATA)>
<!ELEMENT queue-counters-red-bytes-rate-ht (#PCDATA)>
<!ELEMENT queue-counters-red-bytes-rate-ln (#PCDATA)>
<!ELEMENT queue-counters-red-bytes-rate-lt (#PCDATA)>
<!ELEMENT queue-counters-red-packets (#PCDATA)>
<!ELEMENT queue-counters-red-packets-hn (#PCDATA)>
<!ELEMENT queue-counters-red-packets-ht (#PCDATA)>
<!ELEMENT queue-counters-red-packets-ln (#PCDATA)>
<!ELEMENT queue-counters-red-packets-lt (#PCDATA)>
<!ELEMENT queue-counters-red-packets-rate (#PCDATA)>
<!ELEMENT queue-counters-red-packets-rate-hn (#PCDATA)>
<!ELEMENT queue-counters-red-packets-rate-ht (#PCDATA)>
<!ELEMENT queue-counters-red-packets-rate-ln (#PCDATA)>
<!ELEMENT queue-counters-red-packets-rate-lt (#PCDATA)>
<!ELEMENT queue-counters-tail-drop-packets (#PCDATA)>
<!ELEMENT queue-counters-tail-drop-packets-rate (#PCDATA)>
<!ELEMENT queue-counters-trans-bytes (#PCDATA)>
<!ELEMENT queue-counters-trans-bytes-rate (#PCDATA)>
<!ELEMENT queue-counters-trans-packets (#PCDATA)>
<!ELEMENT queue-counters-trans-packets-rate (#PCDATA)>
```

```
<!ELEMENT queue-limit (#PCDATA)>
<!ELEMENT queue-number (#PCDATA)>
<!ELEMENT queuing-drops (#PCDATA)>
<!ELEMENT range (#PCDATA)>
<!ELEMENT rcv-lip-addlink (#PCDATA)>
<!ELEMENT rcv-lip-hello (#PCDATA)>
<!ELEMENT rcv-lip-hello-ack (#PCDATA)>
<!ELEMENT rcv-lip-link-ack (#PCDATA)>
<!ELEMENT rcv-lip-link-rej (#PCDATA)>
<!ELEMENT rcv-lip-link-rem (#PCDATA)>
<!ELEMENT rcv-lip-rem-ack (#PCDATA)>
<!ELEMENT received-count (#PCDATA)>
<!ELEMENT recent-high-differential-delay (#PCDATA)>
<!ELEMENT red-differential-delay (#PCDATA)>
<!ELEMENT red-differential-delay-action (#PCDATA)>
<!ELEMENT removed-bundle-links (#PCDATA)>
<!ELEMENT route-rpf-bytes (#PCDATA)>
<!ELEMENT route-rpf-packets (#PCDATA)>
<!ELEMENT route-rpf-statistics (route-rpf-packets | route-rpf-bytes)*>
<!ELEMENT route-table (#PCDATA)>
<!ELEMENT rx-cell-count (#PCDATA)>
<!ELEMENT rx-cell-fifo-overruns (#PCDATA)>
<!ELEMENT rx-cell-fifo-underruns (#PCDATA)>
<!ELEMENT rx-invalid-vcs (#PCDATA)>
<!ELEMENT scu-class-bytes (#PCDATA)>
<!ELEMENT scu-class-name (#PCDATA)>
<!ELEMENT scu-class-packets (#PCDATA)>
<!ELEMENT sdh-alarm-berr-sd EMPTY>
<!ELEMENT sdh-alarm-berr-sf EMPTY>
<!ELEMENT sdh-alarm-hpais EMPTY>
<!ELEMENT sdh-alarm-hpfebe EMPTY>
```

```
<!ELEMENT sdh-alarm-hpferf EMPTY>
<!ELEMENT sdh-alarm-hpplm EMPTY>
<!ELEMENT sdh-alarm-hpuneq EMPTY>
<!ELEMENT sdh-alarm-loc EMPTY>
<!ELEMENT sdh-alarm-lof EMPTY>
<!ELEMENT sdh-alarm-lol EMPTY>
<!ELEMENT sdh-alarm-lop EMPTY>
<!ELEMENT sdh-alarm-los EMPTY>
<!ELEMENT sdh-alarm-msais EMPTY>
<!ELEMENT sdh-alarm-msferf EMPTY>
<!ELEMENT sdh-alarm-oof EMPTY>
<!ELEMENT sdh-alarm-pll EMPTY>
<!ELEMENT sequence-number-format (#PCDATA)>
<!ELEMENT sequence-number-missing (#PCDATA)>
<!ELEMENT snmp-index (#PCDATA)>
<!ELEMENT sonet-alarm-berr-sd EMPTY>
<!ELEMENT sonet-alarm-berr-sf EMPTY>
<!ELEMENT sonet-alarm-lais EMPTY>
<!ELEMENT sonet-alarm-loc EMPTY>
<!ELEMENT sonet-alarm-lof EMPTY>
<!ELEMENT sonet-alarm-lol EMPTY>
<!ELEMENT sonet-alarm-lop EMPTY>
<!ELEMENT sonet-alarm-los EMPTY>
<!ELEMENT sonet-alarm-lrdi EMPTY>
<!ELEMENT sonet-alarm-pais EMPTY>
<!ELEMENT sonet-alarm-pll EMPTY>
<!ELEMENT sonet-alarm-pmis EMPTY>
<!ELEMENT sonet-alarm-prdi EMPTY>
<!ELEMENT sonet-alarm-rei EMPTY>
<!ELEMENT sonet-alarm-sef EMPTY>
<!ELEMENT sonet-alarm-uneq EMPTY>
```

```
<!ELEMENT sonet-errors (media-alarm)*>
<!ATTLIST sonet-errors junos:style CDATA #IMPLIED>

<!ELEMENT sonet-line-information (media-alarm)*>
<!ATTLIST sonet-line-information junos:style CDATA #IMPLIED>

<!ELEMENT sonet-loopback (#PCDATA)>

<!ELEMENT sonet-mode (#PCDATA)>

<!ELEMENT sonet-path-information (media-alarm)*>
<!ATTLIST sonet-path-information junos:style CDATA #IMPLIED>

<!ELEMENT sonet-physical-information (media-alarm)*>
<!ATTLIST sonet-physical-information junos:style CDATA #IMPLIED>

<!ELEMENT sonet-rx-overhead (#PCDATA)>

<!ELEMENT sonet-rx-path-trace (#PCDATA)>

<!ELEMENT sonet-section-information (media-alarm)*>
<!ATTLIST sonet-section-information junos:style CDATA #IMPLIED>

<!ELEMENT sonet-tx-overhead (#PCDATA)>

<!ELEMENT sonet-tx-path-trace (#PCDATA)>

<!ELEMENT sonet-vt-information (media-alarm)*>
<!ATTLIST sonet-vt-information junos:style CDATA #IMPLIED>

<!ELEMENT source-class-statistics (scu-class-name | scu-class-packets | scu-class-bytes)*>

<!ELEMENT source-filtering (#PCDATA)>

<!ELEMENT speed (#PCDATA)>

<!ELEMENT sram-errors (#PCDATA)>

<!ELEMENT statistics-cleared (#PCDATA)>

<!ELEMENT stream-mask (#PCDATA)>

<!ELEMENT stream-number (#PCDATA)>

<!ELEMENT sustained (#PCDATA)>

<!ELEMENT t391 (#PCDATA)>

<!ELEMENT t392 (#PCDATA)>

<!ELEMENT timeouts (#PCDATA)>

<!ELEMENT total-anti-replay-count (#PCDATA)>

<!ELEMENT total-authentication-failure-count (#PCDATA)>

<!ELEMENT traffic-statistics (input-bytes | output-bytes | input-bps | output-bps | input-packets |
output-packets | input-pps | output-pps)*>
<!ATTLIST traffic-statistics junos:style CDATA #IMPLIED>

<!ELEMENT transit-traffic-statistics (input-bytes | output-bytes | input-bps | output-bps | input-packets |
output-packets | input-pps | output-pps)*>
```

```
<!ELEMENT transmitted-count (#PCDATA)>

<!ELEMENT tx-cell-count (#PCDATA)>

<!ELEMENT tx-cell-fifo-overruns (#PCDATA)>

<!ELEMENT tx-idle-cell-count (#PCDATA)>

<!ELEMENT type (#PCDATA)>

<!ELEMENT uncorrectable-hcs-errors (#PCDATA)>

<!ELEMENT unknown-rx-packets (#PCDATA)>

<!ELEMENT up-count (#PCDATA)>

<!ELEMENT up-hold-time (#PCDATA)>

<!ELEMENT vc-queue-drops (#PCDATA)>

<!ELEMENT vci (#PCDATA)>

<!ELEMENT virtual-circuit-information (vpi | vci | dlci | ifvc-flags | ifvc-multipoint-destination | atm-tm-cbr |
atm-tm-vbr | peak | sustained | burst | queue-limit | down-time | last-down-time | oam-parameters |
oam-statistics | traffic-statistics | atm-statistics | in-arp-statistics)*>

<!ELEMENT virtual-path-information (vpi | ifvp-flags | atm-tm-cbr | atm-tm-vbr | peak | sustained | burst |
queue-limit | down-time | last-down-time | oam-parameters | oam-statistics | traffic-statistics)*>

<!ELEMENT vpi (#PCDATA)>

<!ELEMENT wrr (#PCDATA)>

<!ELEMENT xmt-lip-addlink (#PCDATA)>

<!ELEMENT xmt-lip-hello (#PCDATA)>

<!ELEMENT xmt-lip-hello-ack (#PCDATA)>

<!ELEMENT xmt-lip-link-ack (#PCDATA)>

<!ELEMENT xmt-lip-link-rej (#PCDATA)>

<!ELEMENT xmt-lip-link-rem (#PCDATA)>

<!ELEMENT xmt-lip-rem-ack (#PCDATA)>

<!ELEMENT yellow-differential-delay (#PCDATA)>
```

Chapter 14
DTD for IPSec Response Tags

This chapter contains the document type definition (DTD) called junos-ipsec.dtd, which lists the tags returned by the JUNOScript server to describe IPSec information. The associated Extensible Markup Language (XML) namespace is http://xml.juniper.net/junos/5.5R1/junos-ipsec. To review reference pages for the tags, see "Summary of IPSec Response Tags" on page 198.

```
<!-- Copyright (c) 2000-2002, Juniper Networks, Inc. -->
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<!-- junos-ipsec.dtd -->

<!ELEMENT ike-sa-algorithms (ike-sa-authentication-algorithm | ike-sa-encryption-algorithm |
ike-sa-prf-algorithm)*>

<!ELEMENT ike-sa-authentication-algorithm (#PCDATA)>

<!ELEMENT ike-sa-authentication-method (#PCDATA)>

<!ELEMENT ike-sa-encryption-algorithm (#PCDATA)>

<!ELEMENT ike-sa-exchange-type (#PCDATA)>

<!ELEMENT ike-sa-flags (#PCDATA)>

<!ELEMENT ike-sa-initiator-cookie (#PCDATA)>

<!ELEMENT ike-sa-input-bytes (#PCDATA)>

<!ELEMENT ike-sa-input-packets (#PCDATA)>

<!ELEMENT ike-sa-lifetime (#PCDATA)>

<!ELEMENT ike-sa-local-address (#PCDATA)>

<!ELEMENT ike-sa-local-id (#PCDATA)>

<!ELEMENT ike-sa-local-port (#PCDATA)>

<!ELEMENT ike-sa-misc (ike-sa-flags | ike-sa-num-ipsec-sas-created | ike-sa-num-ipsec-sas-deleted |
ike-sa-num-phase2-negotiations)*>

<!ELEMENT ike-sa-msg-id (#PCDATA)>

<!ELEMENT ike-sa-num-ipsec-sas-created (#PCDATA)>

<!ELEMENT ike-sa-num-ipsec-sas-deleted (#PCDATA)>
```

```
<!ELEMENT ike-sa-num-phase2-negotiations (#PCDATA)>

<!ELEMENT ike-sa-output-bytes (#PCDATA)>

<!ELEMENT ike-sa-output-packets (#PCDATA)>

<!ELEMENT ike-sa-phase2-information (ike-sa-phase2-type | ike-sa-role | ike-sa-msg-id |
ike-sa-local-address | ike-sa-local-port | ike-sa-remote-address | ike-sa-remote-port | ike-sa-local-id |
ike-sa-remote-id | ike-sa-flags)*>

<!ELEMENT ike-sa-phase2-type (#PCDATA)>

<!ELEMENT ike-sa-prf-algorithm (#PCDATA)>

<!ELEMENT ike-sa-remote-address (#PCDATA)>

<!ELEMENT ike-sa-remote-id (#PCDATA)>

<!ELEMENT ike-sa-remote-port (#PCDATA)>

<!ELEMENT ike-sa-responder-cookie (#PCDATA)>

<!ELEMENT ike-sa-role (#PCDATA)>

<!ELEMENT ike-sa-state (#PCDATA)>

<!ELEMENT ike-sa-traffic-statistics (ike-sa-input-packets | ike-sa-output-packets | ike-sa-input-bytes |
ike-sa-output-bytes)*>

<!ELEMENT ike-security-associations (ike-sa-role | ike-sa-state | ike-sa-initiator-cookie |
ike-sa-responder-cookie | ike-sa-exchange-type | ike-sa-authentication-method | ike-sa-local-address |
ike-sa-local-port | ike-sa-remote-address | ike-sa-remote-port | ike-sa-lifetime | ike-sa-algorithms |
ike-sa-traffic-statistics | ike-sa-misc | ike-sa-phase2-information)*>

<!ELEMENT ike-security-associations-block (ike-sa-remote-address | ike-security-associations)*>

<!ELEMENT ike-security-associations-information (ike-security-associations | ike-sa-phase2-information |
ike-security-associations-block)*>
<!ATTLIST ike-security-associations-information junos:style CDATA #IMPLIED>

<!ELEMENT kmd-memory-usage (memory-block-type | memory-in-use)*>

<!ELEMENT kmd-memory-usage-information (kmd-memory-usage)*>
<!ATTLIST kmd-memory-usage-information junos:style CDATA #IMPLIED>

<!ELEMENT memory-block-type (#PCDATA)>

<!ELEMENT memory-in-use (#PCDATA)>

<!ELEMENT sa-anti-replay-service (#PCDATA)>

<!ELEMENT sa-authentication-algorithm (#PCDATA)>

<!ELEMENT sa-aux-spi (#PCDATA)>

<!ELEMENT sa-block-state (#PCDATA)>

<!ELEMENT sa-direction (#PCDATA)>

<!ELEMENT sa-encryption-algorithm (#PCDATA)>

<!ELEMENT sa-hard-lifetime (#PCDATA)>
```

```
<!ELEMENT sa-mode (#PCDATA)>

<!ELEMENT sa-name (#PCDATA)>

<!ELEMENT sa-no-information EMPTY>

<!ELEMENT sa-protocol (#PCDATA)>

<!ELEMENT sa-replay-window-size (#PCDATA)>

<!ELEMENT sa-soft-lifetime (#PCDATA)>

<!ELEMENT sa-spi (#PCDATA)>

<!ELEMENT sa-state (#PCDATA)>

<!ELEMENT sa-type (#PCDATA)>

<!ELEMENT security-associations (sa-direction | sa-spi | sa-aux-spi | sa-state | sa-mode | sa-type |
sa-protocol | sa-authentication-algorithm | sa-encryption-algorithm | sa-soft-lifetime | sa-hard-lifetime |
sa-anti-replay-service | sa-replay-window-size)*>

<!ELEMENT security-associations-block (sa-no-information | sa-name | sa-block-state |
security-associations)*>

<!ELEMENT security-associations-information (security-associations-block | security-associations)*>
<!ATTLIST security-associations-information junos:style CDATA #IMPLIED>
```

Chapter 15

DTD for IPv6 Neighbor Discovery Response Tags

This chapter contains the document type definition (DTD) called junos-ipv6-nd.dtd, which lists the tags returned by the JUNOScript server to describe Internet Protocol Version 6 (IPv6) neighbor discovery. The associated Extensible Markup Language (XML) namespace is http://xml.juniper.net/junos/5.5R1/junos-ipv6-nd. To review reference pages for the tags, see "Summary of IPv6 Neighbor Discovery Response Tags" on page 204.

```
<!-- Copyright (c) 2000-2002, Juniper Networks, Inc. -->
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<!-- junos-ipv6-nd.dtd -->

<!ELEMENT ipv6-error-output (#PCDATA)>

<!ELEMENT ipv6-modify-nd (ipv6-modify-nd-entry)*>

<!ELEMENT ipv6-modify-nd-entry (ipv6-nd-neighbor-address | ipv6-nd-neighbor-l2-address |
ipv6-nd-change)*>

<!ELEMENT ipv6-nd-change (#PCDATA)>

<!ELEMENT ipv6-nd-entry (ipv6-nd-neighbor-address | ipv6-nd-neighbor-l2-address | ipv6-nd-state |
ipv6-nd-expire | ipv6-nd-isrouter | ipv6-nd-interface-name)*>

<!ELEMENT ipv6-nd-expire (#PCDATA)>

<!ELEMENT ipv6-nd-information (ipv6-nd-entry)*>

<!ELEMENT ipv6-nd-interface-name (#PCDATA)>

<!ELEMENT ipv6-nd-isrouter (#PCDATA)>

<!ELEMENT ipv6-nd-neighbor-address (#PCDATA)>

<!ELEMENT ipv6-nd-neighbor-l2-address (#PCDATA)>

<!ELEMENT ipv6-nd-state (#PCDATA)>

<!ELEMENT ipv6-nd-total (#PCDATA)>
```

Chapter 16
DTD for J20 GGSN Response Tags

This chapter contains the document type definition (DTD) called junos-ggsn.dtd, which lists the tags returned by the JUNOScript server to describe J20 gateway GPRS support node (GGSN) information. The associated Extensible Markup Language (XML) namespace is http://xml.juniper.net/junos/5.5R1/junos-ggsn. To review reference pages for the tags, see "Summary of J20 GGSN Response Tags" on page 205.

```
<!-- Copyright (c) 2000-2002, Juniper Networks, Inc. -->
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<!-- junos-ggsn.dtd -->

<!ELEMENT address (#PCDATA)>

<!ELEMENT apn-name (#PCDATA)>

<!ELEMENT apn-pdp-context-deletion-results (apn-name | interface-pdp-context-deletion-information)*>

<!ELEMENT apn-statistics (name | pdp-context-statistics | gtp-error-statistics | uplink | downlink)*>

<!ELEMENT apn-statistics-information (apn-statistics)*>

<!ELEMENT billing-gateway (address | time-connected)*>

<!ELEMENT bytes (#PCDATA)>

<!ELEMENT call-trace (imsi | msisdn | time-started | nsapi-information)*>

<!ELEMENT call-trace-information (number-enabled | number-active | call-trace)*>

<!ELEMENT charging-identifier (#PCDATA)>

<!ELEMENT create-request-received (#PCDATA)>

<!ELEMENT create-response-transmitted (#PCDATA)>

<!ELEMENT daemon-name (#PCDATA)>

<!ELEMENT data-record-transfer-statistics (request-transmitted | response-received)*>

<!ELEMENT delete-request-received (#PCDATA)>

<!ELEMENT delete-request-transmitted (#PCDATA)>

<!ELEMENT delete-response-received (#PCDATA)>

<!ELEMENT delete-response-transmitted (#PCDATA)>
```

```
<!ELEMENT destination-port-range (#PCDATA)>

<!ELEMENT diffserv-code-point (#PCDATA)>

<!ELEMENT downlink (packets | bytes | dropped-packets)*>

<!ELEMENT downlink-bitrate (#PCDATA)>

<!ELEMENT downlink-bytes (#PCDATA)>

<!ELEMENT downlink-packets (#PCDATA)>

<!ELEMENT dropped-packets (#PCDATA)>

<!ELEMENT echo-request-statistics (request-received | request-transmitted | response-received |
response-transmitted)*>

<!ELEMENT error-authentication-failed (#PCDATA)>

<!ELEMENT error-indication-received (#PCDATA)>

<!ELEMENT error-indication-transmitted (#PCDATA)>

<!ELEMENT error-invalid-request-format (#PCDATA)>

<!ELEMENT error-mandatory-ie-invalid (#PCDATA)>

<!ELEMENT error-mandatory-ie-missing (#PCDATA)>

<!ELEMENT error-no-dynamic-address-available (#PCDATA)>

<!ELEMENT error-no-memory (#PCDATA)>

<!ELEMENT error-no-resources (#PCDATA)>

<!ELEMENT error-optional-ie-invalid (#PCDATA)>

<!ELEMENT error-packet-filter-semantic (#PCDATA)>

<!ELEMENT error-packet-filter-syntax (#PCDATA)>

<!ELEMENT error-reference-invalid (#PCDATA)>

<!ELEMENT error-service-unsupported (#PCDATA)>

<!ELEMENT error-system-failure (#PCDATA)>

<!ELEMENT error-tft-error-semantic (#PCDATA)>

<!ELEMENT error-tft-error-syntax (#PCDATA)>

<!ELEMENT error-unknown-apn (#PCDATA)>

<!ELEMENT error-unknown-pdp-address-or-type (#PCDATA)>

<!ELEMENT error-version-unsupported (#PCDATA)>

<!ELEMENT evaluation-precedence (#PCDATA)>

<!ELEMENT external-address (#PCDATA)>

<!ELEMENT flow-label (#PCDATA)>
```

```
<!ELEMENT ggsn-interface (service-interface | external-address | internal-address | operating-function |
hardware-version | software-version | pdp | time-started)*>

<!ELEMENT ggsn-interface-information (ggsn-interface)*>

<!ELEMENT ggsn-statistics (time-started | time-sampled | pdp-context-statistics |
interface-pdp-context-statistics-information | uplink | downlink)*>

<!ELEMENT gi-diffserv-code-point (#PCDATA)>

<!ELEMENT gn-diffserv-code-point (#PCDATA)>

<!ELEMENT gtp-error-statistics (request-accepted | error-indication-received | error-indication-transmitted
| error-version-unsupported | error-invalid-request-format | error-no-resources |
error-no-dynamic-address-available | error-no-memory | error-unknown-apn |
error-unknown-pdp-address-or-type | error-authentication-failed | error-system-failure |
error-tft-error-semantic | error-tft-error-syntax | error-packet-filter-semantic | error-packet-filter-syntax |
error-mandatory-ie-missing | error-mandatory-ie-invalid | error-optional-ie-invalid | error-reference-invalid |
error-service-unsupported)*>

<!ELEMENT gtp-prime-error-statistics (error-mandatory-ie-missing | error-mandatory-ie-invalid |
error-optional-ie-invalid | error-reference-invalid)*>

<!ELEMENT gtp-prime-statistics (service-interface | echo-request-statistics |
version-unsupported-statistics | node-alive-request-statistics | redirection-request-statistics |
data-record-transfer-statistics | gtp-prime-error-statistics)*>

<!ELEMENT gtp-prime-statistics-information (billing-gateway | gtp-prime-statistics)*>

<!ELEMENT gtp-statistics (service-interface | uplink-packets | uplink-bytes | downlink-packets |
downlink-bytes | dropped-packets | echo-request-statistics | version-unsupported-statistics |
pdp-request-statistics | gtp-error-statistics)*>

<!ELEMENT gtp-statistics-information (gtp-statistics)*>

<!ELEMENT hardware-version (#PCDATA)>

<!ELEMENT imsi (#PCDATA)>

<!ELEMENT interface-action (#PCDATA)>

<!ELEMENT interface-action-results (interface-action | service-interface | daemon-name)*>

<!ELEMENT interface-pdp-context-deletion (pdp-deleted | service-interface)*>

<!ELEMENT interface-pdp-context-deletion-information (interface-pdp-context-deletion)*>

<!ELEMENT interface-pdp-context-statistics (service-interface | pdp-context-statistics)*>

<!ELEMENT interface-pdp-context-statistics-information (interface-pdp-context-statistics)*>

<!ELEMENT internal-address (#PCDATA)>

<!ELEMENT mobile-user (imsi | msisdn | pdp-context-information)*>

<!ELEMENT mobile-user-information (mobile-user)*>

<!ELEMENT msisdn (#PCDATA)>

<!ELEMENT name (#PCDATA)>

<!ELEMENT node-action (#PCDATA)>
```

```
<!ELEMENT node-action-results (node-action)*>

<!ELEMENT node-alive-request-statistics (request-received | request-transmitted | response-received |
response-transmitted)*>

<!ELEMENT nsapi (#PCDATA)>

<!ELEMENT nsapi-information (nsapi)*>

<!ELEMENT number-active (#PCDATA)>

<!ELEMENT number-enabled (#PCDATA)>

<!ELEMENT operating-function (#PCDATA)>

<!ELEMENT packet-filter (evaluation-precedence | source-address | source-mask | source-port-range |
destination-port-range | diffserv-code-point | flow-label | spi | protocol)*>

<!ELEMENT packet-filter-information (packet-filter)*>

<!ELEMENT packets (#PCDATA)>

<!ELEMENT pdp (pdp-state | pdp-assigned | pdp-capacity)*>

<!ELEMENT pdp-active (#PCDATA)>

<!ELEMENT pdp-assigned (#PCDATA)>

<!ELEMENT pdp-attempted-activation (#PCDATA)>

<!ELEMENT pdp-attempted-activation-dynamic (#PCDATA)>

<!ELEMENT pdp-attempted-deactivation (#PCDATA)>

<!ELEMENT pdp-attempted-mobile-activation (#PCDATA)>

<!ELEMENT pdp-attempted-mobile-deactivation (#PCDATA)>

<!ELEMENT pdp-attempted-node-deactivation (#PCDATA)>

<!ELEMENT pdp-capacity (#PCDATA)>

<!ELEMENT pdp-completed-activation (#PCDATA)>

<!ELEMENT pdp-completed-activation-dynamic (#PCDATA)>

<!ELEMENT pdp-completed-deactivation (#PCDATA)>

<!ELEMENT pdp-completed-mobile-activation (#PCDATA)>

<!ELEMENT pdp-completed-mobile-deactivation (#PCDATA)>

<!ELEMENT pdp-completed-node-deactivation (#PCDATA)>

<!ELEMENT pdp-context (nsapi | apn-name | sgsn-address | address | charging-identifier |
quality-of-service | traffic-flow-template-information)*>

<!ELEMENT pdp-context-deletion-results (mobile-user)*>

<!ELEMENT pdp-context-information (pdp-context)*>
```

```
<!ELEMENT pdp-context-statistics (pdp-active | pdp-attempted-activation | pdp-completed-activation |
pdp-attempted-activation-dynamic | pdp-completed-activation-dynamic | pdp-attempted-mobile-activation
| pdp-completed-mobile-activation | pdp-attempted-deactivation | pdp-completed-deactivation |
pdp-attempted-node-deactivation | pdp-completed-node-deactivation |
pdp-attempted-mobile-deactivation | pdp-completed-mobile-deactivation | pdp-created | pdp-create-failed
| pdp-last-create | pdp-updates | pdp-update-failed | pdp-deleted | pdp-deleted-by-time-deactivation |
pdp-deleted-by-command | pdp-deleted-by-failure | pdp-delete-failed | pdp-last-delete |
pdp-successful-deactivations | pdp-failed-deactivations | pdp-maximum | pdp-mean)*>

<!ELEMENT pdp-create-failed (#PCDATA)>

<!ELEMENT pdp-created (#PCDATA)>

<!ELEMENT pdp-delete-failed (#PCDATA)>

<!ELEMENT pdp-deleted (#PCDATA)>

<!ELEMENT pdp-deleted-by-command (#PCDATA)>

<!ELEMENT pdp-deleted-by-failure (#PCDATA)>

<!ELEMENT pdp-deleted-by-time-deactivation (#PCDATA)>

<!ELEMENT pdp-failed-deactivations (#PCDATA)>

<!ELEMENT pdp-last-create (#PCDATA)>
<!ATTLIST pdp-last-create junos:seconds CDATA #IMPLIED>

<!ELEMENT pdp-last-delete (#PCDATA)>
<!ATTLIST pdp-last-delete junos:seconds CDATA #IMPLIED>

<!ELEMENT pdp-maximum (#PCDATA)>

<!ELEMENT pdp-mean (#PCDATA)>

<!ELEMENT pdp-request-statistics (create-request-received | create-response-transmitted |
update-request-received | update-request-transmitted | update-response-received |
update-response-transmitted | delete-request-received | delete-request-transmitted |
delete-response-received | delete-response-transmitted)*>

<!ELEMENT pdp-state (#PCDATA)>

<!ELEMENT pdp-successful-deactivations (#PCDATA)>

<!ELEMENT pdp-update-failed (#PCDATA)>

<!ELEMENT pdp-updates (#PCDATA)>

<!ELEMENT protocol (#PCDATA)>

<!ELEMENT quality-of-service (gi-diffserv-code-point | gn-diffserv-code-point | downlink-bitrate)*>

<!ELEMENT redirection-request-statistics (request-received | request-transmitted | response-received |
response-transmitted)*>

<!ELEMENT request-accepted (#PCDATA)>

<!ELEMENT request-received (#PCDATA)>

<!ELEMENT request-transmitted (#PCDATA)>

<!ELEMENT response-received (#PCDATA)>
```

```
<!ELEMENT response-transmitted (#PCDATA)>

<!ELEMENT service-interface (#PCDATA)>

<!ELEMENT sgsn-address (#PCDATA)>

<!ELEMENT sgsn-statistics (address | pdp-context-statistics | uplink | downlink | gtp-error-statistics)*>

<!ELEMENT sgsn-statistics-information (sgsn-statistics)*>

<!ELEMENT software-version (#PCDATA)>

<!ELEMENT source-address (#PCDATA)>

<!ELEMENT source-mask (#PCDATA)>

<!ELEMENT source-port-range (#PCDATA)>

<!ELEMENT spi (#PCDATA)>

<!ELEMENT time-connected (#PCDATA)>
<!ATTLIST time-connected junos:seconds CDATA #IMPLIED>

<!ELEMENT time-sampled (#PCDATA)>
<!ATTLIST time-sampled junos:seconds CDATA #IMPLIED>

<!ELEMENT time-started (#PCDATA)>
<!ATTLIST time-started junos:seconds CDATA #IMPLIED>

<!ELEMENT traffic-flow-template (packet-filter-information)*>

<!ELEMENT traffic-flow-template-information (traffic-flow-template)*>

<!ELEMENT update-request-received (#PCDATA)>

<!ELEMENT update-request-transmitted (#PCDATA)>

<!ELEMENT update-response-received (#PCDATA)>

<!ELEMENT update-response-transmitted (#PCDATA)>

<!ELEMENT uplink (packets | bytes | dropped-packets)*>

<!ELEMENT uplink-bytes (#PCDATA)>

<!ELEMENT uplink-packets (#PCDATA)>

<!ELEMENT version-unsupported-received (#PCDATA)>

<!ELEMENT version-unsupported-statistics (version-unsupported-received |
version-unsupported-transmitted)*>

<!ELEMENT version-unsupported-transmitted (#PCDATA)>
```

Chapter 17
DTD for Passive Monitoring Response Tags

This chapter contains the document type definition (DTD) called junos-passive-monitoring.dtd, which lists the tags returned by the JUNOScript server to describe passive monitoring interfaces. The associated Extensible Markup Language (XML) namespace is http://xml.juniper.net/junos/5.5R1/junos-passive-monitoring. To review reference pages for the tags, see "Summary of Passive Monitoring Response Tags" on page 224.

```
<!-- Copyright (c) 2000-2002, Juniper Networks, Inc. -->
<!-- All rights reserved. -->
<!-- junos-passive-monitoring.dtd -->

<!ELEMENT active-flows (#PCDATA)>

<!ELEMENT allocation-count (#PCDATA)>

<!ELEMENT allocations-per-second (#PCDATA)>

<!ELEMENT error-allocation-failures (#PCDATA)>

<!ELEMENT error-bytes-per-second-overload (#PCDATA)>

<!ELEMENT error-free-failures (#PCDATA)>

<!ELEMENT error-free-list-failures (#PCDATA)>

<!ELEMENT error-information (error-packets-dropped-no-memory | error-packets-dropped-not-ip |
error-packets-dropped-not-ipv4 | error-packets-too-small | error-allocation-failures | error-free-failures |
error-free-list-failures | error-memory-overload | error-packets-per-second-overload |
error-bytes-per-second-overload)*>

<!ELEMENT error-memory-overload (#PCDATA)>

<!ELEMENT error-packets-dropped-no-memory (#PCDATA)>

<!ELEMENT error-packets-dropped-not-ip (#PCDATA)>

<!ELEMENT error-packets-dropped-not-ipv4 (#PCDATA)>

<!ELEMENT error-packets-per-second-overload (#PCDATA)>

<!ELEMENT error-packets-too-small (#PCDATA)>

<!ELEMENT five-second-load (#PCDATA)>

<!ELEMENT flow-bytes (#PCDATA)>
```

```
<!ELEMENT flow-bytes-ten-second-rate (#PCDATA)>

<!ELEMENT flow-information (flow-packets | flow-bytes | flow-packets-ten-second-rate |
flow-bytes-ten-second-rate | active-flows | flows | flows-exported | flow-packets-exported | flows-expired |
flows-aged)*>

<!ELEMENT flow-packets (#PCDATA)>

<!ELEMENT flow-packets-exported (#PCDATA)>

<!ELEMENT flow-packets-ten-second-rate (#PCDATA)>

<!ELEMENT flows (#PCDATA)>

<!ELEMENT flows-aged (#PCDATA)>

<!ELEMENT flows-expired (#PCDATA)>

<!ELEMENT flows-exported (#PCDATA)>

<!ELEMENT free-count (#PCDATA)>

<!ELEMENT frees-per-second (#PCDATA)>

<!ELEMENT interface-name (#PCDATA)>

<!ELEMENT inttime (#PCDATA)>

<!ELEMENT local-index (#PCDATA)>

<!ELEMENT maximum-allocated (#PCDATA)>

<!ELEMENT memory-free (#PCDATA)>

<!ELEMENT memory-information (allocation-count | free-count | maximum-allocated |
allocations-per-second | frees-per-second | memory-used | memory-free)*>

<!ELEMENT memory-used (#PCDATA)>

<!ELEMENT one-minute-load (#PCDATA)>

<!ELEMENT passive-monitoring-information (interface-name | local-index | usage-information |
memory-information | flow-information | error-information | status-information)*>

<!ELEMENT status-engine-id (#PCDATA)>

<!ELEMENT status-engine-type (#PCDATA)>

<!ELEMENT status-export-format (#PCDATA)>

<!ELEMENT status-export-interval (#PCDATA)>

<!ELEMENT status-group-index (#PCDATA)>

<!ELEMENT status-information (status-group-index | status-export-interval | status-export-format |
status-proto | status-engine-type | status-engine-id)*>

<!ELEMENT status-proto (#PCDATA)>

<!ELEMENT uptime (#PCDATA)>

<!ELEMENT usage-information (uptime | inttime | five-second-load | one-minute-load)*>
```

Chapter 18
DTD for Routing Protocols Response Tags

This chapter contains the document type definition (DTD) called junos-routing.dtd, which lists the tags returned by the JUNOScript server to describe routing protocols. The associated Extensible Markup Language (XML) namespace is http://xml.juniper.net/junos/5.5R1/junos-routing. To review reference pages for the tags, see "Summary of Routing Protocols Response Tags" on page 228.

```
<!-- Copyright (c) 2000-2002, Juniper Networks, Inc. -->
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<!-- junos-routing.dtd -->

<!ELEMENT ack-flag (#PCDATA)>

<!ELEMENT active-control-channel (#PCDATA)>

<!ELEMENT active-count (#PCDATA)>

<!ELEMENT active-external-prefix-count (#PCDATA)>

<!ELEMENT active-holdtime (#PCDATA)>

<!ELEMENT active-internal-prefix-count (#PCDATA)>

<!ELEMENT active-path (#PCDATA)>

<!ELEMENT active-prefix-count (#PCDATA)>

<!ELEMENT active-reservation (#PCDATA)>

<!ELEMENT active-route-count (#PCDATA)>

<!ELEMENT active-tag (#PCDATA)>

<!ELEMENT activity-timer (#PCDATA)>

<!ELEMENT actual-free-bytes (#PCDATA)>

<!ELEMENT address (#PCDATA)>

<!ELEMENT address-families (#PCDATA)>

<!ELEMENT address-mask (#PCDATA)>

<!ELEMENT address-prefix (#PCDATA)>

<!ELEMENT adj-count (#PCDATA)>
```

```
<!ELEMENT adjacency-count (#PCDATA)>

<!ELEMENT adjacency-event (#PCDATA)>

<!ELEMENT adjacency-flag (#PCDATA)>

<!ELEMENT adjacency-restart-capable (#PCDATA)>

<!ELEMENT adjacency-state (#PCDATA)>

<!ELEMENT adjacency-topologies (#PCDATA)>

<!ELEMENT adjacency-when (#PCDATA)>
<!ATTLIST adjacency-when junos:seconds CDATA #IMPLIED>

<!ELEMENT adjust-threshold (#PCDATA)>

<!ELEMENT adjust-timer (#PCDATA)>

<!ELEMENT admin-group-name (#PCDATA)>

<!ELEMENT admin-group-number (#PCDATA)>

<!ELEMENT admin-groups (color | no-group-flag | admin-group-name | admin-group-number)*>
<!ATTLIST admin-groups heading CDATA #IMPLIED>

<!ELEMENT advertising-router (#PCDATA)>

<!ELEMENT age (#PCDATA)>
<!ATTLIST age junos:seconds CDATA #IMPLIED>

<!ELEMENT aggregate (aggregate-flags | aggregate-depth | aggregate-active | aggregate-as-path |
contributing-route-count | aggregated-route)*>

<!ELEMENT aggregate-active EMPTY>

<!ELEMENT aggregate-as-path (as-path | reference-count)*>

<!ELEMENT aggregate-depth (#PCDATA)>

<!ELEMENT aggregate-flag (#PCDATA)>

<!ELEMENT aggregate-flags (#PCDATA)>

<!ELEMENT aggregated-route (destination-prefix | protocol-name)*>

<!ELEMENT aging-timer (#PCDATA)>

<!ELEMENT allocated-length (#PCDATA)>

<!ELEMENT announce-bits (#PCDATA)>

<!ELEMENT announce-tasks (#PCDATA)>

<!ELEMENT area-address-tlv (address | tlv-length)*>

<!ELEMENT area-mismatch-error (#PCDATA)>

<!ELEMENT as-number (#PCDATA)>

<!ELEMENT as-path (#PCDATA)>
```

```
<!ELEMENT attached-router (#PCDATA)>

<!ELEMENT authentication-configured EMPTY>

<!ELEMENT authentication-failure-error (#PCDATA)>

<!ELEMENT authentication-flag (#PCDATA)>

<!ELEMENT authentication-key (#PCDATA)>

<!ELEMENT authentication-mismatch-error (#PCDATA)>

<!ELEMENT authentication-tlv (tlv-length)*>

<!ELEMENT available-bandwidth (#PCDATA)>

<!ELEMENT average-per-run (#PCDATA)>

<!ELEMENT average-time (#PCDATA)>

<!ELEMENT bad-packettype-error (#PCDATA)>

<!ELEMENT bad-version-error (#PCDATA)>

<!ELEMENT bandwidth (#PCDATA)>

<!ELEMENT bandwidth-priority (#PCDATA)>

<!ELEMENT bdr-address (#PCDATA)>

<!ELEMENT bdr-id (#PCDATA)>

<!ELEMENT bgp-error (name | send-count | receive-count)*>

<!ELEMENT bgp-group (type | peer-as | local-as | group-state | name | bgp-options | bgp-options2 |
group-flags | peer-count | established-count | peer-address | unconfigured-peers | igp-protocol |
route-queue | bgp-peer | bgp-option-information | tracing-information | bgp-rib)*>
<!ATTLIST bgp-group heading CDATA #IMPLIED>
<!ATTLIST bgp-group junos:style CDATA #IMPLIED>

<!ELEMENT bgp-group-information (bgp-group | bgp-information)*>

<!ELEMENT bgp-information (group-count | peer-count | external-peer-count | internal-peer-count |
down-peer-count | unconfigured-peer-count | half-open-peer-count | igp-converging | flap-count | bgp-rib |
bgp-peer)*>

<!ELEMENT bgp-option-information (export-policy | import-policy | bgp-options | bgp-options2 |
authentication-key | authentication-configured | address-families | local-address | holdtime | metric-out |
preference | local-preference | prefix-limit | local-as | local-as-private | local-system-as |
receive-buffer-size | send-buffer-size | outbound-timer | med-action | ipsec-sa)*>

<!ELEMENT bgp-options (#PCDATA)>

<!ELEMENT bgp-options2 (#PCDATA)>

<!ELEMENT bgp-output-queue (number | count)*>
```

```
<!ELEMENT bgp-peer (peer-address | peer-as | local-address | local-as | description | peer-type |
route-reflector-client | peer-state | peer-flags | last-state | last-event | last-error | bgp-option-information |
flap-count | peer-id | local-id | active-holdtime | keepalive-interval | local-interface-name |
local-interface-index | nlri-type-peer | nlri-type-session | peer-no-refresh | peer-refresh-capability |
peer-restart-nlri-configured | peer-restart-time-configured | peer-stale-route-time-configured |
peer-restart-time-received | peer-restart-flags-received | peer-restart-nlri-received |
peer-restart-nlri-state-saved | peer-no-restart | peer-restart-nlri-negotiated | peer-end-of-rib-received |
peer-end-of-rib-sent | peer-end-of-rib-scheduled | last-received | last-sent | last-checked | input-messages
| input-updates | input-refreshes | input-octets | output-messages | output-updates | output-refreshes |
output-octets | buffered-octets-rx | buffered-octets-tx | bgp-output-queue | route-queue-count | bgp-rib |
elapsed-time | extended-information | bgp-error | route-queue | tracing-information)*>
<!ATTLIST bgp-peer heading CDATA #IMPLIED>
<!ATTLIST bgp-peer junos:style CDATA #IMPLIED>

<!ELEMENT bgp-rib (name | rib-bit | bgp-rib-state | vpn-rib-state | send-state | total-external-prefix-count |
active-external-prefix-count | suppressed-external-prefix-count | total-internal-prefix-count |
active-internal-prefix-count | suppressed-internal-prefix-count | total-prefix-count | active-prefix-count |
received-prefix-count | damped-prefix-count | suppressed-prefix-count | history-prefix-count |
pending-prefix-count)*>
<!ATTLIST bgp-rib junos:style CDATA #IMPLIED>

<!ELEMENT bgp-rib-state (#PCDATA)>

<!ELEMENT bidirectional EMPTY>

<!ELEMENT bits (#PCDATA)>

<!ELEMENT buffered-octets-rx (#PCDATA)>

<!ELEMENT buffered-octets-tx (#PCDATA)>

<!ELEMENT bytes-left (#PCDATA)>

<!ELEMENT changed-entity (#PCDATA)>

<!ELEMENT checksum (#PCDATA)>

<!ELEMENT checksum-error (#PCDATA)>

<!ELEMENT circuit-id (#PCDATA)>

<!ELEMENT circuit-type (#PCDATA)>

<!ELEMENT color (#PCDATA)>

<!ELEMENT color2 (#PCDATA)>

<!ELEMENT connection (connection-id | connection-type | connection-status | last-change |
up-transitions | local-interface | remote-interface | remote-pe | inbound-label | outbound-label | history)*>
<!ATTLIST connection heading CDATA #IMPLIED>

<!ELEMENT connection-id (#PCDATA)>

<!ELEMENT connection-status (#PCDATA)>

<!ELEMENT connection-type (#PCDATA)>

<!ELEMENT contributing-route-count (#PCDATA)>

<!ELEMENT control-channel-unusable EMPTY>

<!ELEMENT cos (#PCDATA)>
```

```
<!ELEMENT count (#PCDATA)>

<!ELEMENT csnp-interval (#PCDATA)>

<!ELEMENT cspf-paths (total-paths | successful | no-route | sys-error | cspfs)*>

<!ELEMENT cspf-queue (current | maximum | dequeued)*>

<!ELEMENT cspf-status (#PCDATA)>

<!ELEMENT cspf-time (#PCDATA)>

<!ELEMENT cspf-timing (total-time | cspf-time | average-time | rpd-time)*>

<!ELEMENT cspfs (#PCDATA)>

<!ELEMENT current (#PCDATA)>

<!ELEMENT current-active EMPTY>

<!ELEMENT current-bandwidth-header EMPTY>

<!ELEMENT current-reserve-bandwidth (#PCDATA)>

<!ELEMENT damped-prefix-count (#PCDATA)>

<!ELEMENT damping-parameters (#PCDATA)>

<!ELEMENT database-entry-state (#PCDATA)>

<!ELEMENT dbd-retransmit-time (#PCDATA)>

<!ELEMENT dbds-retransmit (#PCDATA)>

<!ELEMENT dbds-retransmit-5seconds (#PCDATA)>

<!ELEMENT dead-interval (#PCDATA)>

<!ELEMENT dead-interval-mismatch-error (#PCDATA)>

<!ELEMENT default-damping-parameters EMPTY>

<!ELEMENT dequeued (#PCDATA)>

<!ELEMENT description (#PCDATA)>

<!ELEMENT destination-address (#PCDATA)>

<!ELEMENT destination-count (#PCDATA)>

<!ELEMENT destination-prefix (#PCDATA)>

<!ELEMENT destination-router-id (#PCDATA)>

<!ELEMENT detour (lsp-state | packet-information | explicit-route | record-route)*>

<!ELEMENT detour-bandwidth (bandwidth-priority | total-reserved-bandwidth | interface-address)*>

<!ELEMENT detour-branch (source-address | skip-address | lsp-state | explicit-route | record-route |
packet-information)*>

<!ELEMENT detours (#PCDATA)>
```

```
<!ELEMENT disconnected EMPTY>

<!ELEMENT display-count (#PCDATA)>

<!ELEMENT down-count (#PCDATA)>

<!ELEMENT down-peer-count (#PCDATA)>

<!ELEMENT dr-address (#PCDATA)>

<!ELEMENT dr-flag (#PCDATA)>

<!ELEMENT dr-id (#PCDATA)>

<!ELEMENT dr-id-one (#PCDATA)>

<!ELEMENT dr-id-two (#PCDATA)>

<!ELEMENT elapsed-time (#PCDATA)>
<!ATTLIST elapsed-time junos:seconds CDATA #IMPLIED>

<!ELEMENT element (#PCDATA)>

<!ELEMENT encoding-type (#PCDATA)>

<!ELEMENT error-count (#PCDATA)>

<!ELEMENT error-count-5seconds (#PCDATA)>

<!ELEMENT error-message (#PCDATA)>

<!ELEMENT established-count (#PCDATA)>

<!ELEMENT estimated-free-bytes (#PCDATA)>

<!ELEMENT expiration-time (#PCDATA)>

<!ELEMENT expire-time (#PCDATA)>
<!ATTLIST expire-time junos:seconds CDATA #IMPLIED>

<!ELEMENT explicit-route (address | explicit-route-type)*>
<!ATTLIST explicit-route heading CDATA #IMPLIED>

<!ELEMENT explicit-route-type (#PCDATA)>

<!ELEMENT export-count (#PCDATA)>

<!ELEMENT export-list (#PCDATA)>

<!ELEMENT export-policy (#PCDATA)>

<!ELEMENT extended-information (#PCDATA)>

<!ELEMENT external-peer-count (#PCDATA)>

<!ELEMENT external-prefix-metric (#PCDATA)>

<!ELEMENT family (#PCDATA)>

<!ELEMENT filelimit (#PCDATA)>

<!ELEMENT filename (#PCDATA)>
```

```
<!ELEMENT filesize (#PCDATA)>

<!ELEMENT first-update (#PCDATA)>
<!ATTLIST first-update junos:seconds CDATA #IMPLIED>

<!ELEMENT flags (#PCDATA)>

<!ELEMENT flap-count (#PCDATA)>

<!ELEMENT flood-list-count (#PCDATA)>

<!ELEMENT flood-queue-depth (#PCDATA)>

<!ELEMENT formatted-tlv-data (#PCDATA)>

<!ELEMENT forward-address (#PCDATA)>

<!ELEMENT forward-nz EMPTY>

<!ELEMENT forward-rsvp EMPTY>

<!ELEMENT forwarding-nh-count (#PCDATA)>

<!ELEMENT fragments-rebuilt (#PCDATA)>

<!ELEMENT gateway (#PCDATA)>

<!ELEMENT generation-timer (#PCDATA)>

<!ELEMENT gpid (#PCDATA)>

<!ELEMENT group-count (#PCDATA)>

<!ELEMENT group-flags (#PCDATA)>

<!ELEMENT group-state (#PCDATA)>

<!ELEMENT half-open-peer-count (#PCDATA)>

<!ELEMENT hello-interval (#PCDATA)>

<!ELEMENT hello-interval-mismatch-error (#PCDATA)>

<!ELEMENT hello-received-error (#PCDATA)>

<!ELEMENT hello-time (#PCDATA)>

<!ELEMENT hellos-received (#PCDATA)>

<!ELEMENT hellos-sent (#PCDATA)>

<!ELEMENT helper-status (#PCDATA)>

<!ELEMENT hidden-route-count (#PCDATA)>

<!ELEMENT high-watermark (#PCDATA)>

<!ELEMENT history (log-time-stamp | log-event | changed-entity)*>
<!ATTLIST history heading CDATA #IMPLIED>

<!ELEMENT history-prefix-count (#PCDATA)>
```

```
<!ELEMENT hold-priority (#PCDATA)>

<!ELEMENT holddown-route-count (#PCDATA)>

<!ELEMENT holdtime (#PCDATA)>

<!ELEMENT hoplimit (#PCDATA)>

<!ELEMENT hostname (#PCDATA)>

<!ELEMENT hostname-tlv (hostname)*>

<!ELEMENT idrp-tlv (tlv-length)*>

<!ELEMENT igp-converging EMPTY>

<!ELEMENT igp-protocol (#PCDATA)>

<!ELEMENT import-count (#PCDATA)>

<!ELEMENT import-list (#PCDATA)>

<!ELEMENT import-policy (#PCDATA)>

<!ELEMENT inactive-reason (#PCDATA)>

<!ELEMENT inbound-label (#PCDATA)>

<!ELEMENT incomplete EMPTY>

<!ELEMENT index (#PCDATA)>

<!ELEMENT indirect-nh (#PCDATA)>

<!ELEMENT indirect-nh-count (#PCDATA)>

<!ELEMENT input-messages (#PCDATA)>

<!ELEMENT input-octets (#PCDATA)>

<!ELEMENT input-refreshes (#PCDATA)>

<!ELEMENT input-updates (#PCDATA)>

<!ELEMENT installation-time (#PCDATA)>

<!ELEMENT instance (instance-name | instance-display-error | reference-site)*>

<!ELEMENT instance-core (instance-name | instance-description | router-id | instance-type |
instance-state | instance-restart-state | instance-pathsel-timeout | prib-name | prib-route-count |
prib-active-count | prib-holddown-count | prib-hidden-count | instance-interface | instance-vrf |
instance-rib)*>
<!ATTLIST instance-core heading CDATA #IMPLIED>
<!ATTLIST instance-core junos:style CDATA #IMPLIED>

<!ELEMENT instance-description (#PCDATA)>

<!ELEMENT instance-display-error (#PCDATA)>

<!ELEMENT instance-flags (#PCDATA)>

<!ELEMENT instance-id-mismatch-error (#PCDATA)>
```

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<!ELEMENT instance-information (instance-core)*>

<!ELEMENT instance-interface (interface-name)*>

<!ELEMENT instance-name (#PCDATA)>

<!ELEMENT instance-options (#PCDATA)>

<!ELEMENT instance-pathsel-timeout (#PCDATA)>

<!ELEMENT instance-restart-state (#PCDATA)>

<!ELEMENT instance-rib (irib-name | irib-route-count | irib-active-count | irib-holddown-count |
irib-hidden-count | irib-restart-state)*>
<!ATTLIST instance-rib junos:style CDATA #IMPLIED>

<!ELEMENT instance-state (#PCDATA)>

<!ELEMENT instance-type (#PCDATA)>

<!ELEMENT instance-vrf (route-distinguisher | vrf-import | vrf-export | vrf-import-target |
vrf-export-target)*>

<!ELEMENT interface (interface-name | interface-id | interface-description)*>

<!ELEMENT interface-address (#PCDATA)>

<!ELEMENT interface-cost (#PCDATA)>

<!ELEMENT interface-description (#PCDATA)>

<!ELEMENT interface-description-list (#PCDATA)>

<!ELEMENT interface-disabled-flag EMPTY>

<!ELEMENT interface-encapsulation (#PCDATA)>

<!ELEMENT interface-flood-list-count (#PCDATA)>

<!ELEMENT interface-id (#PCDATA)>

<!ELEMENT interface-index (#PCDATA)>

<!ELEMENT interface-level-data (level | adjacency-count | interface-priority | metric | te-metric | passive |
hello-time | holdtime | dr-id-one | dr-id-two | dr-flag)*>

<!ELEMENT interface-link-name (#PCDATA)>

<!ELEMENT interface-name (#PCDATA)>

<!ELEMENT interface-priority (#PCDATA)>

<!ELEMENT interface-state-value (#PCDATA)>

<!ELEMENT interface-status (#PCDATA)>

<!ELEMENT interface-type (#PCDATA)>

<!ELEMENT internal-peer-count (#PCDATA)>

<!ELEMENT ip-address (#PCDATA)>
```

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<!ELEMENT ip-prefix-tlv (isis-topology-id | address-prefix | metric | prefix-status | subtlv-size |
isis-prefix-subtlv)*>
<!ATTLIST ip-prefix-tlv heading CDATA #IMPLIED>

<!ELEMENT ipaddress-tlv (address)*>

<!ELEMENT ipsec-sa (#PCDATA)>

<!ELEMENT ipv6-address (#PCDATA)>

<!ELEMENT ipv6-ra-advertisement (ipv6-source-address | ipv6-ra-time-since | ipv6-ra-managed-flag |
ipv6-ra-managed-flag-conflict | ipv6-ra-other-config-flag | ipv6-ra-other-config-flag-conflict | ipv6-ra-link-mtu
| ipv6-ra-link-mtu-conflict | ipv6-ra-reachable-time | ipv6-ra-reachable-time-conflict | ipv6-ra-default-lifetime
| ipv6-ra-default-lifetime-conflict | ipv6-ra-retransmit-timer | ipv6-ra-retransmit-timer-conflict |
ipv6-ra-current-hop-limit | ipv6-ra-current-hop-limit-conflict | ipv6-ra-prefix)*>

<!ELEMENT ipv6-ra-advertisement-sent-time (#PCDATA)>
<!ATTLIST ipv6-ra-advertisement-sent-time junos:seconds CDATA #IMPLIED>

<!ELEMENT ipv6-ra-advertisements-received (#PCDATA)>

<!ELEMENT ipv6-ra-advertisements-sent (#PCDATA)>

<!ELEMENT ipv6-ra-current-hop-limit (#PCDATA)>

<!ELEMENT ipv6-ra-current-hop-limit-conflict (#PCDATA)>

<!ELEMENT ipv6-ra-default-lifetime (#PCDATA)>

<!ELEMENT ipv6-ra-default-lifetime-conflict (#PCDATA)>

<!ELEMENT ipv6-ra-information (ipv6-ra-interface)*>

<!ELEMENT ipv6-ra-interface (interface-name | ipv6-ra-advertisements-sent |
ipv6-ra-advertisement-sent-time | ipv6-ra-solicits-received | ipv6-ra-solicit-receive-time |
ipv6-ra-advertisements-received | ipv6-ra-advertisement)*>

<!ELEMENT ipv6-ra-link-mtu (#PCDATA)>

<!ELEMENT ipv6-ra-link-mtu-conflict (#PCDATA)>

<!ELEMENT ipv6-ra-managed-flag (#PCDATA)>

<!ELEMENT ipv6-ra-managed-flag-conflict (#PCDATA)>

<!ELEMENT ipv6-ra-other-config-flag (#PCDATA)>

<!ELEMENT ipv6-ra-other-config-flag-conflict (#PCDATA)>

<!ELEMENT ipv6-ra-prefix (ipv6-ra-prefix-address | ipv6-ra-prefix-valid-lifetime |
ipv6-ra-prefix-valid-lifetime-conflict | ipv6-ra-prefix-preferred-lifetime |
ipv6-ra-prefix-preferred-lifetime-conflict | ipv6-ra-prefix-on-link | ipv6-ra-prefix-on-link-conflict |
ipv6-ra-prefix-autonomous | ipv6-ra-prefix-autonomous-conflict)*>

<!ELEMENT ipv6-ra-prefix-address (#PCDATA)>

<!ELEMENT ipv6-ra-prefix-autonomous (#PCDATA)>

<!ELEMENT ipv6-ra-prefix-autonomous-conflict (#PCDATA)>

<!ELEMENT ipv6-ra-prefix-on-link (#PCDATA)>
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<!ELEMENT ipv6-ra-prefix-on-link-conflict (#PCDATA)>

<!ELEMENT ipv6-ra-prefix-preferred-lifetime (#PCDATA)>

<!ELEMENT ipv6-ra-prefix-preferred-lifetime-conflict (#PCDATA)>

<!ELEMENT ipv6-ra-prefix-valid-lifetime (#PCDATA)>

<!ELEMENT ipv6-ra-prefix-valid-lifetime-conflict (#PCDATA)>

<!ELEMENT ipv6-ra-reachable-time (#PCDATA)>

<!ELEMENT ipv6-ra-reachable-time-conflict (#PCDATA)>

<!ELEMENT ipv6-ra-retransmit-timer (#PCDATA)>

<!ELEMENT ipv6-ra-retransmit-timer-conflict (#PCDATA)>

<!ELEMENT ipv6-ra-solicit-receive-time (#PCDATA)>
<!ATTLIST ipv6-ra-solicit-receive-time junos:seconds CDATA #IMPLIED>

<!ELEMENT ipv6-ra-solicits-received (#PCDATA)>

<!ELEMENT ipv6-ra-time-since (#PCDATA)>
<!ATTLIST ipv6-ra-time-since junos:seconds CDATA #IMPLIED>

<!ELEMENT ipv6-reachability-tlv (ipv6-address | metric | prefix-flags | prefix-extern | prefix-downflag |
subtlv-size | isis-prefix-subtlv)*>
<!ATTLIST ipv6-reachability-tlv heading CDATA #IMPLIED>

<!ELEMENT ipv6-source-address (#PCDATA)>

<!ELEMENT ipv6address-tlv (address)*>

<!ELEMENT irib-active-count (#PCDATA)>

<!ELEMENT irib-hidden-count (#PCDATA)>

<!ELEMENT irib-holddown-count (#PCDATA)>

<!ELEMENT irib-name (#PCDATA)>

<!ELEMENT irib-restart-state (#PCDATA)>

<!ELEMENT irib-route-count (#PCDATA)>

<!ELEMENT is-detour EMPTY>

<!ELEMENT is-fastreroute EMPTY>

<!ELEMENT is-linkprotection EMPTY>

<!ELEMENT is-neighbor-id (#PCDATA)>

<!ELEMENT is-primary EMPTY>

<!ELEMENT isis-adjacency (interface-name | system-name | not-remote-address | level | adjacency-state
| holdtime | interface-priority | transition-count | last-transition-time | circuit-type |
adjacency-restart-capable | adjacency-flag | adjacency-topologies | mac-address | lan-id | ip-address |
ipv6-address | snpa | isis-adjacency-log)*>
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<!ELEMENT isis-adjacency-information (isis-adjacency)*>
<!ATTLIST isis-adjacency-information junos:style CDATA #IMPLIED>

<!ELEMENT isis-adjacency-log (adjacency-when | adjacency-state | adjacency-event)*>

<!ELEMENT isis-database (level | isis-database-entry | lsp-count)*>

<!ELEMENT isis-database-entry (lsp-id | sequence-number | checksum | remaining-lifetime |
lsp-attributes | isis-neighbor | isis-prefix | isis-header | isis-packet | lsp-stub | isis-tlv |
transmission-status)*>

<!ELEMENT isis-database-information (isis-database)*>
<!ATTLIST isis-database-information junos:style CDATA #IMPLIED>

<!ELEMENT isis-header (lsp-id | pdu-length | allocated-length | router-id | remaining-lifetime | level |
interface-index | estimated-free-bytes | actual-free-bytes | lsdb-timer-type | lsdb-expiration-time |
needs-rebuild | protocol)*>

<!ELEMENT isis-hostname (system-id | system-name | isis-hostname-type)*>

<!ELEMENT isis-hostname-information (isis-hostname)*>

<!ELEMENT isis-hostname-type (#PCDATA)>

<!ELEMENT isis-interface (interface-name | circuit-type | circuit-id | isis-interface-state-one |
isis-interface-state-two | interface-disabled-flag | dr-id-one | dr-id-two | metric-one | metric-two |
interface-index | interface-state-value | lsp-interval | csnp-interval | system-name | mesh-group |
interface-level-data)*>
<!ATTLIST isis-interface heading CDATA #IMPLIED>

<!ELEMENT isis-interface-information (isis-interface)*>
<!ATTLIST isis-interface-information junos:style CDATA #IMPLIED>

<!ELEMENT isis-interface-state-one (#PCDATA)>

<!ELEMENT isis-interface-state-two (#PCDATA)>

<!ELEMENT isis-neighbor (isis-topology-id | is-neighbor-id | metric | reachability-delay |
reachability-expense | reachability-error)*>

<!ELEMENT isis-next-hop (#PCDATA)>

<!ELEMENT isis-packet (lsp-id | pdu-length | pdu-lifetime | checksum | sequence-number | lsp-attributes |
nlp-id | mtid | lsp-length | pdu-version | system-id-length | isis-packet-type | packet-version |
maximum-area)*>

<!ELEMENT isis-packet-type (#PCDATA)>

<!ELEMENT isis-pdu-type (#PCDATA)>

<!ELEMENT isis-prefix (protocol-name | isis-topology-id | address-prefix | metric | prefix-flag |
reachability-delay | reachability-expense | reachability-error)*>

<!ELEMENT isis-prefix-subtlv (isis-prefix-tag)*>

<!ELEMENT isis-prefix-tag (isis-prefix-tag-index | isis-prefix-tag-value)*>

<!ELEMENT isis-prefix-tag-index (#PCDATA)>

<!ELEMENT isis-prefix-tag-value (#PCDATA)>
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<!ELEMENT isis-reachability-subtlv (isis-subtlv-type | subtlv-length | max-bandwidth |
max-reserve-bandwidth | current-bandwidth-header | current-reserve-bandwidth | admin-groups |
bandwidth-priority | address | neighbor-prefix | address-prefix | prefix-err-message | te-metric)*>

<!ELEMENT isis-route (address-prefix | level | route-version | metric | metric-type | interface-name |
isis-next-hop)*>

<!ELEMENT isis-route-information (isis-routing-table)*>

<!ELEMENT isis-routing-table (isis-topology-id | level-one-version | level-two-version | isis-route)*>

<!ELEMENT isis-spf (isis-spf-results-header | isis-spf-result | node-count | isis-spf-log-header |
isis-spf-log)*>

<!ELEMENT isis-spf-information (isis-spf)*>

<!ELEMENT isis-spf-log (start-time | elapsed-time | spf-trigger-count | logging-reason | lsp-name |
system-name | interface-name)*>

<!ELEMENT isis-spf-log-header (level | isis-topology-id)*>

<!ELEMENT isis-spf-result (node-id | disconnected | metric | no-first-fragment | next-hop-element |
prefix-element)*>

<!ELEMENT isis-spf-results-header (level | isis-topology-id)*>

<!ELEMENT isis-statistics (system-name | isis-pdu-type | packets-received | packets-processed |
packets-dropped | packets-sent | packets-retransmitted | totals-information | snp-queue-length |
snp-queue-drops | lsp-queue-length | lsp-queue-drops | spf-runs | fragments-rebuilt | lsps-regenerated |
purges-initiated)*>

<!ELEMENT isis-statistics-information (isis-statistics)*>

<!ELEMENT isis-subtlv-type (#PCDATA)>

<!ELEMENT isis-tlv (isis-tlv-overhead | area-address-tlv | protocols-tlv | mt-tlv | hostname-tlv |
ipaddress-tlv | ipv6address-tlv | router-id-tlv | reachability-tlv | isis-prefix-subtlv | ipv6-reachability-tlv |
isis-reachability-subtlv | authentication-tlv | idrp-tlv | ip-prefix-tlv | unknown-tlv | tlv-stragglers)*>
<!ATTLIST isis-tlv heading CDATA #IMPLIED>

<!ELEMENT isis-tlv-overhead (isis-tlv-type | tlv-length | bytes-left)*>

<!ELEMENT isis-tlv-type (#PCDATA)>

<!ELEMENT isis-topology-id (#PCDATA)>

<!ELEMENT keep-multiplier (#PCDATA)>

<!ELEMENT keepalive-interval (#PCDATA)>

<!ELEMENT l2circuit-connection-information (l2circuit-neighbor)*>

<!ELEMENT l2circuit-neighbor (neighbor-address | neighbor-display-error | connection)*>

<!ELEMENT l2vpn-connection-information (instance)*>

<!ELEMENT label-block (label-block-offset | label-block-range | label-block-base |
label-block-status-vector)*>

<!ELEMENT label-block-base (#PCDATA)>

<!ELEMENT label-block-offset (#PCDATA)>
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<!ELEMENT label-block-range (#PCDATA)>

<!ELEMENT label-block-status-vector (#PCDATA)>

<!ELEMENT label-in (#PCDATA)>

<!ELEMENT label-out (#PCDATA)>

<!ELEMENT lan-id (#PCDATA)>

<!ELEMENT last-active EMPTY>

<!ELEMENT last-change (#PCDATA)>

<!ELEMENT last-changed-time (#PCDATA)>
<!ATTLIST last-changed-time junos:seconds CDATA #IMPLIED>

<!ELEMENT last-checked (#PCDATA)>

<!ELEMENT last-error (#PCDATA)>

<!ELEMENT last-event (#PCDATA)>

<!ELEMENT last-merit (#PCDATA)>

<!ELEMENT last-received (#PCDATA)>

<!ELEMENT last-sent (#PCDATA)>

<!ELEMENT last-state (#PCDATA)>

<!ELEMENT last-transition-time (#PCDATA)>
<!ATTLIST last-transition-time junos:seconds CDATA #IMPLIED>

<!ELEMENT last-update (#PCDATA)>
<!ATTLIST last-update junos:seconds CDATA #IMPLIED>

<!ELEMENT ldp-binding (ldp-label | ldp-prefix | ldp-binding-filtered | ldp-binding-stale | ldp-binding-state |
ldp-binding-queued)*>

<!ELEMENT ldp-binding-filtered EMPTY>

<!ELEMENT ldp-binding-queued EMPTY>

<!ELEMENT ldp-binding-stale EMPTY>

<!ELEMENT ldp-binding-state (#PCDATA)>

<!ELEMENT ldp-block-time (#PCDATA)>

<!ELEMENT ldp-config-sequence (#PCDATA)>

<!ELEMENT ldp-connection-state (#PCDATA)>

<!ELEMENT ldp-database (ldp-database-type | ldp-session-id | ldp-binding)*>

<!ELEMENT ldp-database-information (ldp-database)*>

<!ELEMENT ldp-database-type (#PCDATA)>

<!ELEMENT ldp-egress-label EMPTY>
```

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<!ELEMENT ldp-event-count (#PCDATA)>

<!ELEMENT ldp-event-count-5seconds (#PCDATA)>

<!ELEMENT ldp-event-statistics (ldp-event-type | ldp-event-count | ldp-event-count-5seconds)*>

<!ELEMENT ldp-event-type (#PCDATA)>

<!ELEMENT ldp-global-label (#PCDATA)>

<!ELEMENT ldp-graceful-restart-local (#PCDATA)>

<!ELEMENT ldp-graceful-restart-remote (#PCDATA)>

<!ELEMENT ldp-graceful-restart-state (#PCDATA)>

<!ELEMENT ldp-hello-interval (#PCDATA)>

<!ELEMENT ldp-holdtime (#PCDATA)>

<!ELEMENT ldp-ingress-label EMPTY>

<!ELEMENT ldp-inlib-label (#PCDATA)>

<!ELEMENT ldp-inlib-session (#PCDATA)>

<!ELEMENT ldp-interface (interface-name | ldp-label-space-id | ldp-neighbor-count | ldp-next-hello |
ldp-hello-interval | ldp-holdtime | ldp-transport-address | ldp-interface-index | ldp-block-time)*>

<!ELEMENT ldp-interface-index (#PCDATA)>

<!ELEMENT ldp-interface-information (ldp-interface)*>

<!ELEMENT ldp-keepalive-interval (#PCDATA)>

<!ELEMENT ldp-keepalive-time (#PCDATA)>

<!ELEMENT ldp-label (#PCDATA)>

<!ELEMENT ldp-label-space-id (#PCDATA)>

<!ELEMENT ldp-local-address (#PCDATA)>

<!ELEMENT ldp-local-helper-mode (#PCDATA)>

<!ELEMENT ldp-local-reconnect-time (#PCDATA)>

<!ELEMENT ldp-message-statistics (ldp-message-type | ldp-messages-sent | ldp-messages-received |
ldp-messages-sent-5seconds | ldp-messages-received-5seconds)*>

<!ELEMENT ldp-message-type (#PCDATA)>

<!ELEMENT ldp-messages-received (#PCDATA)>

<!ELEMENT ldp-messages-received-5seconds (#PCDATA)>

<!ELEMENT ldp-messages-sent (#PCDATA)>

<!ELEMENT ldp-messages-sent-5seconds (#PCDATA)>

<!ELEMENT ldp-neighbor (ldp-neighbor-address | interface-name | ldp-label-space-id | ldp-remaining-time
| ldp-transport-address | ldp-config-sequence | ldp-up-time | ldp-reference-count | ldp-holdtime)*>
```

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<!ELEMENT ldp-neighbor-address (#PCDATA)>

<!ELEMENT ldp-neighbor-count (#PCDATA)>

<!ELEMENT ldp-neighbor-information (ldp-neighbor)*>

<!ELEMENT ldp-next-hello (#PCDATA)>

<!ELEMENT ldp-nexthop (interface-name | lsp-name | interface-address | ldp-session-id)*>

<!ELEMENT ldp-no-label EMPTY>

<!ELEMENT ldp-outlib-label (#PCDATA)>

<!ELEMENT ldp-outlib-session (#PCDATA)>

<!ELEMENT ldp-path (ldp-outlib-session | ldp-outlib-label | ldp-ingress-label | ldp-inlib-session |
ldp-inlib-label | ldp-egress-label | ldp-path-route | ldp-reference-count | ldp-route-transit |
ldp-global-label)*>

<!ELEMENT ldp-path-information (ldp-path)*>

<!ELEMENT ldp-path-route (ldp-prefix | ldp-route-ingress)*>

<!ELEMENT ldp-prefix (#PCDATA)>

<!ELEMENT ldp-reference-count (#PCDATA)>

<!ELEMENT ldp-remaining-time (#PCDATA)>

<!ELEMENT ldp-remote-address (#PCDATA)>

<!ELEMENT ldp-remote-helper-mode (#PCDATA)>

<!ELEMENT ldp-remote-reconnect-time (#PCDATA)>

<!ELEMENT ldp-restart-complete-time (#PCDATA)>

<!ELEMENT ldp-retry-interval (#PCDATA)>

<!ELEMENT ldp-retry-time (#PCDATA)>

<!ELEMENT ldp-route (ldp-prefix | ldp-nexthop | ldp-label | ldp-no-label | ldp-topology-entry)*>

<!ELEMENT ldp-route-information (ldp-route)*>

<!ELEMENT ldp-route-ingress EMPTY>

<!ELEMENT ldp-route-transit EMPTY>

<!ELEMENT ldp-session (ldp-neighbor-address | ldp-session-state | ldp-connection-state |
ldp-remaining-time | ldp-session-id | ldp-retry-time | ldp-keepalive-time | ldp-session-role |
ldp-session-max-pdu | ldp-holdtime | ldp-neighbor-count | ldp-keepalive-interval | ldp-retry-interval |
ldp-local-address | ldp-remote-address | ldp-graceful-restart-state | ldp-local-reconnect-time |
ldp-remote-reconnect-time | ldp-restart-complete-time | ldp-local-helper-mode | ldp-remote-helper-mode |
ldp-graceful-restart-local | ldp-graceful-restart-remote | ldp-up-time | ldp-session-address |
ldp-session-deleted | ldp-session-connect-pending | ldp-session-close-pending | ldp-session-queue-depth
| ldp-session-read-pending | ldp-session-write-pending | ldp-session-receive-buffer-bytes |
ldp-session-transmit-buffer-bytes | ldp-session-no-connection | ldp-session-authentication)*>

<!ELEMENT ldp-session-address (interface-address | interface-name | ldp-session-address-stale)*>
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<!ELEMENT ldp-session-address-stale EMPTY>

<!ELEMENT ldp-session-authentication (#PCDATA)>

<!ELEMENT ldp-session-close-pending EMPTY>

<!ELEMENT ldp-session-connect-pending EMPTY>

<!ELEMENT ldp-session-deleted EMPTY>

<!ELEMENT ldp-session-id (#PCDATA)>

<!ELEMENT ldp-session-information (ldp-session)*>
<!ATTLIST ldp-session-information junos:style CDATA #IMPLIED>

<!ELEMENT ldp-session-max-pdu (#PCDATA)>

<!ELEMENT ldp-session-no-connection EMPTY>

<!ELEMENT ldp-session-queue-depth (#PCDATA)>

<!ELEMENT ldp-session-read-pending EMPTY>

<!ELEMENT ldp-session-receive-buffer-bytes (#PCDATA)>

<!ELEMENT ldp-session-role (#PCDATA)>

<!ELEMENT ldp-session-state (#PCDATA)>

<!ELEMENT ldp-session-transmit-buffer-bytes (#PCDATA)>

<!ELEMENT ldp-session-write-pending EMPTY>

<!ELEMENT ldp-statistics (ldp-message-statistics | ldp-event-statistics)*>

<!ELEMENT ldp-statistics-information (ldp-statistics)*>

<!ELEMENT ldp-topology-entry (#PCDATA)>

<!ELEMENT ldp-traffic-error (#PCDATA)>

<!ELEMENT ldp-traffic-multiple-fec (#PCDATA)>

<!ELEMENT ldp-traffic-statistics (ldp-prefix | ldp-traffic-type | ldp-traffic-error |
ldp-traffic-statistics-packet-count | ldp-traffic-statistics-byte-count | ldp-traffic-multiple-fec)*>

<!ELEMENT ldp-traffic-statistics-byte-count (#PCDATA)>

<!ELEMENT ldp-traffic-statistics-error (ldp-traffic-error)*>

<!ELEMENT ldp-traffic-statistics-information (ldp-traffic-statistics | ldp-traffic-statistics-error)*>

<!ELEMENT ldp-traffic-statistics-packet-count (#PCDATA)>

<!ELEMENT ldp-traffic-type (#PCDATA)>

<!ELEMENT ldp-transport-address (#PCDATA)>

<!ELEMENT ldp-up-time (#PCDATA)>
<!ATTLIST ldp-up-time junos:seconds CDATA #IMPLIED>

<!ELEMENT learned-from (#PCDATA)>
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<!ELEMENT level (#PCDATA)>

<!ELEMENT level-one-version (#PCDATA)>

<!ELEMENT level-two-version (#PCDATA)>

<!ELEMENT limit-action (#PCDATA)>

<!ELEMENT link-count (#PCDATA)>

<!ELEMENT link-data (#PCDATA)>

<!ELEMENT link-id (#PCDATA)>

<!ELEMENT link-intf-id (#PCDATA)>

<!ELEMENT link-metric (#PCDATA)>

<!ELEMENT link-subtlv (tlv-type-name | tlv-type-value | tlv-length | bytes-left | formatted-tlv-data)*>

<!ELEMENT link-type-name (#PCDATA)>

<!ELEMENT link-type-value (#PCDATA)>

<!ELEMENT linklocal-address (#PCDATA)>

<!ELEMENT lm-avail-bandwidth (#PCDATA)>

<!ELEMENT lm-encoding (#PCDATA)>

<!ELEMENT lm-information (lm-peer-root-information | lm-te-link-root-information)*>

<!ELEMENT lm-local-address (#PCDATA)>

<!ELEMENT lm-local-id (#PCDATA)>

<!ELEMENT lm-max-bandwidth (#PCDATA)>

<!ELEMENT lm-min-bandwidth (#PCDATA)>

<!ELEMENT lm-peer-control-address (#PCDATA)>

<!ELEMENT lm-peer-control-channel (#PCDATA)>

<!ELEMENT lm-peer-information (lm-source | lm-sys-id | lm-peer-name | lm-state | lm-peer-control-address
| lm-peer-control-channel | lm-peer-keepalive | lm-peer-te-links)*>

<!ELEMENT lm-peer-keepalive (#PCDATA)>

<!ELEMENT lm-peer-name (#PCDATA)>

<!ELEMENT lm-peer-root-information (lm-peer-information)*>

<!ELEMENT lm-peer-te-link (#PCDATA)>

<!ELEMENT lm-peer-te-links (lm-peer-te-link)*>

<!ELEMENT lm-remote-address (#PCDATA)>

<!ELEMENT lm-remote-id (#PCDATA)>

<!ELEMENT lm-res-bandwidth (#PCDATA)>
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<!ELEMENT lm-res-in-use (#PCDATA)>

<!ELEMENT lm-res-local-addr (#PCDATA)>

<!ELEMENT lm-res-local-id (#PCDATA)>

<!ELEMENT lm-res-name (#PCDATA)>

<!ELEMENT lm-res-remote-addr (#PCDATA)>

<!ELEMENT lm-res-remote-id (#PCDATA)>

<!ELEMENT lm-source (#PCDATA)>

<!ELEMENT lm-state (#PCDATA)>

<!ELEMENT lm-sys-id (#PCDATA)>

<!ELEMENT lm-te-link-information (lm-te-link-name | lm-local-id | lm-remote-id | lm-state | lm-local-address
| lm-remote-address | lm-encoding | lm-min-bandwidth | lm-max-bandwidth | lm-total-bandwidth |
lm-avail-bandwidth | lm-te-link-resources)*>

<!ELEMENT lm-te-link-name (#PCDATA)>

<!ELEMENT lm-te-link-resources (lm-res-name | lm-res-local-id | lm-res-remote-id | lm-res-local-addr |
lm-res-remote-addr | lm-res-bandwidth | lm-res-in-use)*>

<!ELEMENT lm-te-link-root-information (lm-te-link-information)*>

<!ELEMENT lm-total-bandwidth (#PCDATA)>

<!ELEMENT load-balance (#PCDATA)>

<!ELEMENT local-address (#PCDATA)>

<!ELEMENT local-as (#PCDATA)>

<!ELEMENT local-as-private EMPTY>

<!ELEMENT local-id (#PCDATA)>

<!ELEMENT local-interface (interface-name | interface-status | interface-encapsulation)*>

<!ELEMENT local-interface-index (#PCDATA)>

<!ELEMENT local-interface-name (#PCDATA)>

<!ELEMENT local-preference (#PCDATA)>

<!ELEMENT local-site-id (#PCDATA)>

<!ELEMENT local-system-as (#PCDATA)>

<!ELEMENT log (#PCDATA)>

<!ELEMENT log-element (timestamp | ospf-log-type | elapsed-time)*>

<!ELEMENT log-event (#PCDATA)>

<!ELEMENT log-time-stamp (#PCDATA)>

<!ELEMENT logging-reason (#PCDATA)>
```

```
<!ELEMENT loopback-address (#PCDATA)>
<!ELEMENT lsa-id (#PCDATA)>
<!ELEMENT lsa-length (#PCDATA)>
<!ELEMENT lsa-list (#PCDATA)>
<!ELEMENT lsa-type (#PCDATA)>
<!ELEMENT lsas-acknowledged (#PCDATA)>
<!ELEMENT lsas-acknowledged-5seconds (#PCDATA)>
<!ELEMENT lsas-flooded (#PCDATA)>
<!ELEMENT lsas-flooded-5seconds (#PCDATA)>
<!ELEMENT lsas-high-prio-flooded (#PCDATA)>
<!ELEMENT lsas-high-prio-flooded-5seconds (#PCDATA)>
<!ELEMENT lsas-nbr-transmit (#PCDATA)>
<!ELEMENT lsas-nbr-transmit-5seconds (#PCDATA)>
<!ELEMENT lsas-requested (#PCDATA)>
<!ELEMENT lsas-requested-5seconds (#PCDATA)>
<!ELEMENT lsas-retransmit (#PCDATA)>
<!ELEMENT lsas-retransmit-5seconds (#PCDATA)>
<!ELEMENT lsdb-expiration-time (#PCDATA)>
<!ELEMENT lsdb-timer-type (#PCDATA)>
<!ELEMENT lsp-attributes (#PCDATA)>
<!ELEMENT lsp-count (#PCDATA)>
<!ELEMENT lsp-creation-time (#PCDATA)>
<!ELEMENT lsp-description (#PCDATA)>
<!ELEMENT lsp-id (#PCDATA)>
<!ELEMENT lsp-interval (#PCDATA)>
<!ELEMENT lsp-length (#PCDATA)>
<!ELEMENT lsp-name (#PCDATA)>
<!ELEMENT lsp-pktbytes (#PCDATA)>
<!ELEMENT lsp-queue-drops (#PCDATA)>
<!ELEMENT lsp-queue-length (#PCDATA)>
<!ELEMENT lsp-state (#PCDATA)>
```

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<!ELEMENT lsp-stub EMPTY>

<!ELEMENT lsps-regenerated (#PCDATA)>

<!ELEMENT lsreq-active EMPTY>

<!ELEMENT lsreq-enqueued EMPTY>

<!ELEMENT lsreq-retransmit-time (#PCDATA)>

<!ELEMENT mac-address (#PCDATA)>

<!ELEMENT master-slave (#PCDATA)>

<!ELEMENT max-bandwidth (#PCDATA)>

<!ELEMENT max-reserve-bandwidth (#PCDATA)>

<!ELEMENT max-run (#PCDATA)>

<!ELEMENT maximum (#PCDATA)>

<!ELEMENT maximum-area (#PCDATA)>

<!ELEMENT maximum-bandwidth (#PCDATA)>

<!ELEMENT med (#PCDATA)>

<!ELEMENT med-action (#PCDATA)>

<!ELEMENT merit (#PCDATA)>

<!ELEMENT mesh-group (#PCDATA)>

<!ELEMENT message (#PCDATA)>

<!ELEMENT message-statistics (rsvp-message | messages-sent | messages-received |
messages-sent-5seconds | messages-received-5seconds)*>

<!ELEMENT messages-received (#PCDATA)>

<!ELEMENT messages-received-5seconds (#PCDATA)>

<!ELEMENT messages-sent (#PCDATA)>

<!ELEMENT messages-sent-5seconds (#PCDATA)>

<!ELEMENT metric (#PCDATA)>

<!ELEMENT metric-one (#PCDATA)>

<!ELEMENT metric-out (#PCDATA)>

<!ELEMENT metric-two (#PCDATA)>

<!ELEMENT metric-type (#PCDATA)>

<!ELEMENT metric2 (#PCDATA)>

<!ELEMENT minimum-bandwidth (#PCDATA)>

<!ELEMENT monitor-lsp-bandwidth EMPTY>
```

```
<!ELEMENT mpls-admin-group (admin-group-name | index)*>

<!ELEMENT mpls-admin-group-information (mpls-admin-group)*>

<!ELEMENT mpls-cspf (cspf-queue | cspf-paths | cspf-timing)*>
<!ATTLIST mpls-cspf heading CDATA #IMPLIED>

<!ELEMENT mpls-cspf-information (mpls-cspf)*>

<!ELEMENT mpls-error (mpls-error-msg)*>

<!ELEMENT mpls-error-msg (#PCDATA)>

<!ELEMENT mpls-interface (interface-name | mpls-interface-state | no-group-flag | admin-group-name |
admin-group-number)*>

<!ELEMENT mpls-interface-information (mpls-interface)*>

<!ELEMENT mpls-interface-state (#PCDATA)>

<!ELEMENT mpls-label (#PCDATA)>

<!ELEMENT mpls-lsp (destination-address | source-address | lsp-state | route-count | active-path |
is-primary | name | bidirectional | lsp-description | lsp-pktbytes | no-statistics | is-fastreroute |
is-linkprotection | load-balance | metric | admin-groups | lsp-creation-time | retry-timer | retry-limit |
mpls-lsp-autobandwidth | mpls-lsp-path | mpls-lsp-attributes)*>

<!ELEMENT mpls-lsp-attributes (signal-type | encoding-type | switching-type | gpid | protection-type)*>

<!ELEMENT mpls-lsp-autobandwidth (monitor-lsp-bandwidth | minimum-bandwidth | maximum-bandwidth
| adjust-timer | bandwidth | time-to-adjust | adjust-threshold)*>

<!ELEMENT mpls-lsp-information (rsvp-session-data)*>

<!ELEMENT mpls-lsp-path (path-active | title | name | path-state | cos | no-decrement-ttl | preference |
setup-priority | hold-priority | bandwidth | path-adaptive | path-no-recordroute | hoplimit | optimize-timer |
admin-groups | retry-timer | retry-limit | cspf-status | explicit-route | received-rro | path-history)*>

<!ELEMENT mpls-path (name | address | path-type)*>

<!ELEMENT mpls-path-information (mpls-path)*>

<!ELEMENT mt-tlv (mtid)*>

<!ELEMENT mtid (#PCDATA)>

<!ELEMENT mtu (#PCDATA)>

<!ELEMENT mtu-mismatch-error (#PCDATA)>

<!ELEMENT name (#PCDATA)>

<!ELEMENT nbr-intf-id (#PCDATA)>

<!ELEMENT nbr-rtr-id (#PCDATA)>

<!ELEMENT needs-rebuild EMPTY>

<!ELEMENT neighbor-address (#PCDATA)>

<!ELEMENT neighbor-adjacency-time (#PCDATA)>
```

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<!ELEMENT neighbor-count (#PCDATA)>

<!ELEMENT neighbor-display-error (#PCDATA)>

<!ELEMENT neighbor-down-count (#PCDATA)>

<!ELEMENT neighbor-id (#PCDATA)>

<!ELEMENT neighbor-idle (#PCDATA)>
<!ATTLIST neighbor-idle junos:seconds CDATA #IMPLIED>

<!ELEMENT neighbor-prefix (#PCDATA)>

<!ELEMENT neighbor-priority (#PCDATA)>

<!ELEMENT neighbor-up-count (#PCDATA)>

<!ELEMENT neighbor-up-time (#PCDATA)>

<!ELEMENT netmask-mismatch-error (#PCDATA)>

<!ELEMENT next-hop (#PCDATA)>

<!ELEMENT next-hop-address (interface-address | lsp-name)*>

<!ELEMENT next-hop-element (interface-name | isis-next-hop | snpa)*>

<!ELEMENT next-hop-name (interface-name | interface-link-name)*>

<!ELEMENT next-hop-type (#PCDATA)>

<!ELEMENT nh (selected-next-hop | weight | via | nh-local-interface | nh-table-receive | nh-table | to |
lsp-name | mpls-label)*>

<!ELEMENT nh-local-interface (#PCDATA)>

<!ELEMENT nh-table (#PCDATA)>

<!ELEMENT nh-table-receive (#PCDATA)>

<!ELEMENT nh-type (#PCDATA)>

<!ELEMENT nlp-id (#PCDATA)>

<!ELEMENT nlri-type (#PCDATA)>

<!ELEMENT nlri-type-peer (#PCDATA)>

<!ELEMENT nlri-type-session (#PCDATA)>

<!ELEMENT no-decrement-ttl EMPTY>

<!ELEMENT no-error EMPTY>

<!ELEMENT no-first-fragment EMPTY>

<!ELEMENT no-group-flag EMPTY>

<!ELEMENT no-interface-error (#PCDATA)>

<!ELEMENT no-route (#PCDATA)>
```

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<!ELEMENT no-router-id-error (#PCDATA)>

<!ELEMENT no-statistics EMPTY>

<!ELEMENT node-count (#PCDATA)>

<!ELEMENT node-id (#PCDATA)>

<!ELEMENT not-remote-address EMPTY>

<!ELEMENT nssa-mismatch-error (#PCDATA)>

<!ELEMENT number (#PCDATA)>

<!ELEMENT number-events (#PCDATA)>

<!ELEMENT optimize-timer (#PCDATA)>

<!ELEMENT optional-capability (#PCDATA)>

<!ELEMENT options (#PCDATA)>

<!ELEMENT ospf-area (#PCDATA)>

<!ELEMENT ospf-area-header (ospf-area)*>

<!ELEMENT ospf-database (lsa-type | our-entry | lsa-id | advertising-router | sequence-number | age |
options | checksum | lsa-length | ospf-router-lsa | ospf-network-lsa | ospf-opaque-area-lsa |
ospf-opaque-link-local-lsa | ospf-summary-lsa | ospf-external-lsa | ospf-database-extensive)*>
<!ATTLIST ospf-database external-heading CDATA #IMPLIED>
<!ATTLIST ospf-database heading CDATA #IMPLIED>

<!ELEMENT ospf-database-extensive (generation-timer | aging-timer | installation-time | expiration-time |
send-time | database-entry-state)*>

<!ELEMENT ospf-database-information (ospf-area-header | ospf-intf-header | ospf-database |
ospf-database-summary)*>

<!ELEMENT ospf-database-summary (ospf-area | ospf-intf | ospf-lsa-count | ospf-lsa-type)*>
<!ATTLIST ospf-database-summary external-heading CDATA #IMPLIED>

<!ELEMENT ospf-errors (runt-header-error | short-packets-error | bad-version-error |
truncated-packets-error | checksum-error | subnet-mismatch-error | virtual-link-error |
area-mismatch-error | authentication-mismatch-error | authentication-failure-error | bad-packettype-error |
netmask-mismatch-error | hello-interval-mismatch-error | dead-interval-mismatch-error |
stub-area-mismatch-error | nssa-mismatch-error | mtu-mismatch-error | hello-received-error |
no-interface-error | no-router-id-error | instance-id-mismatch-error | no-error)*>

<!ELEMENT ospf-external-lsa (address-mask | type-value | tos-count | metric | forward-address | tag)*>

<!ELEMENT ospf-interface (interface-name | ospf-interface-state | ospf-area | dr-id | bdr-id |
neighbor-count | interface-type | interface-address | address-mask | mtu | interface-cost | dr-address |
bdr-address | adj-count | router-priority | passive | hello-interval | poll-interval | dead-interval |
retransmit-interval | ospf-stub-type | interface-flood-list-count | flood-list-count | lsa-list |
interface-description-list)*>

<!ELEMENT ospf-interface-information (ospf-interface)*>

<!ELEMENT ospf-interface-state (#PCDATA)>

<!ELEMENT ospf-intf (#PCDATA)>
```

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<!ELEMENT ospf-intf-header (ospf-intf)*>

<!ELEMENT ospf-io-statistics (packets-read | average-per-run | max-run | ospf-errors)*>

<!ELEMENT ospf-io-statistics-information (ospf-io-statistics)*>

<!ELEMENT ospf-link (link-id | link-data | link-type-name | link-type-value | tos-count | tos-0-metric)*>

<!ELEMENT ospf-log-events (log-element | number-events)*>

<!ELEMENT ospf-log-information (ospf-log-instance | ospf-log-maximum-length | ospf-log-events)*>

<!ELEMENT ospf-log-instance (log-element)*>

<!ELEMENT ospf-log-maximum-length (log-element)*>

<!ELEMENT ospf-log-type (#PCDATA)>

<!ELEMENT ospf-lsa-count (#PCDATA)>

<!ELEMENT ospf-lsa-type (#PCDATA)>

<!ELEMENT ospf-neighbor (neighbor-address | interface-name | ospf-neighbor-state | neighbor-id |
neighbor-priority | activity-timer | ospf-area | options | dr-address | bdr-address | neighbor-up-time |
neighbor-adjacency-time | master-slave | sequence-number | dbd-retransmit-time | lsreq-retransmit-time |
lsreq-enqueued | lsreq-active | lsa-list)*>

<!ELEMENT ospf-neighbor-information (ospf-neighbor)*>

<!ELEMENT ospf-neighbor-state (#PCDATA)>

<!ELEMENT ospf-network-lsa (address-mask | attached-router)*>

<!ELEMENT ospf-opaque-area-lsa (tlv-block | link-subtlv)*>

<!ELEMENT ospf-opaque-link-local-lsa (tlv-grace-type-name | tlv-grace-value)*>

<!ELEMENT ospf-packet-type (#PCDATA)>

<!ELEMENT ospf-route (address-prefix | route-path-type | route-type | next-hop-type | interface-cost |
next-hop-name | next-hop-address | ospf-area | optional-capability | route-origin | type7 | pbit |
forward-nz)*>

<!ELEMENT ospf-route-information (ospf-route)*>

<!ELEMENT ospf-router-lsa (bits | link-count | ospf-link)*>

<!ELEMENT ospf-statistics (packet-statistics | dbds-retransmit | dbds-retransmit-5seconds |
lsas-flooded | lsas-flooded-5seconds | lsas-high-prio-flooded | lsas-high-prio-flooded-5seconds |
lsas-retransmit | lsas-retransmit-5seconds | lsas-nbr-transmit | lsas-nbr-transmit-5seconds |
lsas-requested | lsas-requested-5seconds | lsas-acknowledged | lsas-acknowledged-5seconds |
flood-queue-depth | total-retransmits | total-database-summaries | total-linkstate-request |
ospf-errors)*>

<!ELEMENT ospf-statistics-information (ospf-statistics)*>

<!ELEMENT ospf-stub-type (#PCDATA)>

<!ELEMENT ospf-summary-lsa (address-mask | tos-count | metric)*>
```

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<!ELEMENT ospf3-database (lsa-type | our-entry | lsa-id | advertising-router | sequence-number | age |
checksum | lsa-length | ospf3-router-lsa | ospf3-network-lsa | ospf3-inter-area-prefix-lsa |
ospf3-inter-area-router-lsa | ospf3-external-lsa | ospf3-link-lsa | ospf3-intra-area-prefix-lsa |
ospf-database-extensive | ospf-opaque-link-local-lsa)*>
<!ATTLIST ospf3-database external-heading CDATA #IMPLIED>
<!ATTLIST ospf3-database heading CDATA #IMPLIED>

<!ELEMENT ospf3-database-information (ospf-area-header | ospf-intf-header | ospf3-database |
ospf3-database-summary)*>

<!ELEMENT ospf3-database-summary (ospf-area | ospf-intf | ospf-lsa-count | ospf-lsa-type)*>
<!ATTLIST ospf3-database-summary external-heading CDATA #IMPLIED>

<!ELEMENT ospf3-external-lsa (ospf3-prefix | ospf3-prefix-options | type-value | metric | forward-address
| tag)*>

<!ELEMENT ospf3-inter-area-prefix-lsa (ospf3-prefix | ospf3-prefix-options | metric)*>

<!ELEMENT ospf3-inter-area-router-lsa (destination-router-id | ospf3-options | metric)*>

<!ELEMENT ospf3-interface (interface-name | ospf-interface-state | ospf-area | dr-id | bdr-id |
neighbor-count | interface-address | prefix-length | ospf3-interface-index | interface-type | mtu |
interface-cost | dr-address | bdr-address | adj-count | router-priority | passive | hello-interval | poll-interval
| dead-interval | retransmit-interval | ospf-stub-type | interface-flood-list-count | flood-list-count | lsa-list |
interface-description-list)*>

<!ELEMENT ospf3-interface-index (#PCDATA)>

<!ELEMENT ospf3-interface-information (ospf3-interface)*>

<!ELEMENT ospf3-intra-area-prefix-lsa (reference-lsa-type | reference-lsa-id | reference-lsa-router-id |
prefix-count | ospf3-prefix | ospf3-prefix-options | ospf3-prefix-metric)*>

<!ELEMENT ospf3-io-statistics-information (ospf-io-statistics)*>

<!ELEMENT ospf3-link (link-type-name | link-type-value | link-intf-id | nbr-intf-id | nbr-rtr-id | link-metric)*>

<!ELEMENT ospf3-link-lsa (linklocal-address | ospf3-options | router-priority | prefix-count | ospf3-prefix |
ospf3-prefix-options)*>

<!ELEMENT ospf3-log-information (ospf-log-instance | ospf-log-maximum-length | ospf-log-events)*>

<!ELEMENT ospf3-neighbor (neighbor-id | interface-name | ospf-neighbor-state | neighbor-priority |
activity-timer | neighbor-address | ospf-area | options | ospf3-interface-index | dr-id | bdr-id |
neighbor-up-time | neighbor-adjacency-time | master-slave | sequence-number | dbd-retransmit-time |
lsreq-retransmit-time | lsreq-enqueued | lsreq-active | lsa-list)*>

<!ELEMENT ospf3-neighbor-information (ospf3-neighbor)*>

<!ELEMENT ospf3-network-lsa (ospf3-options | attached-router)*>

<!ELEMENT ospf3-options (#PCDATA)>

<!ELEMENT ospf3-prefix (#PCDATA)>

<!ELEMENT ospf3-prefix-metric (#PCDATA)>

<!ELEMENT ospf3-prefix-options (#PCDATA)>

<!ELEMENT ospf3-route (address-prefix | route-path-type | route-type | next-hop-type | interface-cost |
next-hop-name | next-hop-address | ospf-area | optional-capability | route-origin | type7 | pbit |
forward-nz)*>
```

```
<!ELEMENT ospf3-route-information (ospf3-route)*>

<!ELEMENT ospf3-router-lsa (bits | ospf3-options | ospf3-link)*>

<!ELEMENT ospf3-statistics-information (ospf-statistics)*>

<!ELEMENT our-entry EMPTY>

<!ELEMENT outbound-label (#PCDATA)>

<!ELEMENT outbound-timer (#PCDATA)>

<!ELEMENT output-messages (#PCDATA)>

<!ELEMENT output-octets (#PCDATA)>

<!ELEMENT output-refreshes (#PCDATA)>

<!ELEMENT output-updates (#PCDATA)>

<!ELEMENT packet-information (previous-hop | next-hop | interface-name | count)*>
<!ATTLIST packet-information heading CDATA #IMPLIED>

<!ELEMENT packet-statistics (ospf-packet-type | packets-sent | packets-received |
packets-sent-5seconds | packets-received-5seconds)*>

<!ELEMENT packet-version (#PCDATA)>

<!ELEMENT packets-dropped (#PCDATA)>

<!ELEMENT packets-processed (#PCDATA)>

<!ELEMENT packets-read (#PCDATA)>

<!ELEMENT packets-received (#PCDATA)>

<!ELEMENT packets-received-5seconds (#PCDATA)>

<!ELEMENT packets-retransmitted (#PCDATA)>

<!ELEMENT packets-sent (#PCDATA)>

<!ELEMENT packets-sent-5seconds (#PCDATA)>

<!ELEMENT passive (#PCDATA)>

<!ELEMENT path-active EMPTY>

<!ELEMENT path-adaptive EMPTY>

<!ELEMENT path-history (sequence-number | time | log | route)*>

<!ELEMENT path-no-recordroute EMPTY>

<!ELEMENT path-state (#PCDATA)>

<!ELEMENT path-type (#PCDATA)>

<!ELEMENT pbit EMPTY>

<!ELEMENT pdu-length (#PCDATA)>
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<!ELEMENT pdu-lifetime (#PCDATA)>
<!ELEMENT pdu-version (#PCDATA)>
<!ELEMENT peer-address (#PCDATA)>
<!ELEMENT peer-as (#PCDATA)>
<!ELEMENT peer-count (#PCDATA)>
<!ELEMENT peer-end-of-rib-received (#PCDATA)>
<!ELEMENT peer-end-of-rib-scheduled (#PCDATA)>
<!ELEMENT peer-end-of-rib-sent (#PCDATA)>
<!ELEMENT peer-flags (#PCDATA)>
<!ELEMENT peer-id (#PCDATA)>
<!ELEMENT peer-no-refresh EMPTY>
<!ELEMENT peer-no-restart EMPTY>
<!ELEMENT peer-refresh-capability (#PCDATA)>
<!ELEMENT peer-restart-flags-received (#PCDATA)>
<!ELEMENT peer-restart-nlri-configured (#PCDATA)>
<!ELEMENT peer-restart-nlri-negotiated (#PCDATA)>
<!ELEMENT peer-restart-nlri-received (#PCDATA)>
<!ELEMENT peer-restart-nlri-state-saved (#PCDATA)>
<!ELEMENT peer-restart-time-configured (#PCDATA)>
<!ELEMENT peer-restart-time-received (#PCDATA)>
<!ELEMENT peer-stale-route-time-configured (#PCDATA)>
<!ELEMENT peer-state (#PCDATA)>
<!ELEMENT peer-type (#PCDATA)>
<!ELEMENT pending-prefix-count (#PCDATA)>
<!ELEMENT poll-interval (#PCDATA)>
<!ELEMENT preemption-count (#PCDATA)>
<!ELEMENT preemption-type (#PCDATA)>
<!ELEMENT preference (#PCDATA)>
<!ELEMENT preference2 (#PCDATA)>
<!ELEMENT prefix-count (#PCDATA)>
<!ELEMENT prefix-downflag EMPTY>
```

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<!ELEMENT prefix-element (address-prefix | prefix-metric | external-prefix-metric)*>

<!ELEMENT prefix-err-message EMPTY>

<!ELEMENT prefix-extern EMPTY>

<!ELEMENT prefix-flag (#PCDATA)>

<!ELEMENT prefix-flags (#PCDATA)>

<!ELEMENT prefix-length (#PCDATA)>

<!ELEMENT prefix-limit (nlri-type | prefix-count | limit-action | warning-percentage)*>

<!ELEMENT prefix-metric (#PCDATA)>

<!ELEMENT prefix-status (#PCDATA)>

<!ELEMENT previous-hop (#PCDATA)>

<!ELEMENT prib-active-count (#PCDATA)>

<!ELEMENT prib-hidden-count (#PCDATA)>

<!ELEMENT prib-holddown-count (#PCDATA)>

<!ELEMENT prib-name (#PCDATA)>

<!ELEMENT prib-route-count (#PCDATA)>

<!ELEMENT protect-flag (#PCDATA)>

<!ELEMENT protection-type (#PCDATA)>

<!ELEMENT proto-id (#PCDATA)>

<!ELEMENT protocol (#PCDATA)>

<!ELEMENT protocol-name (#PCDATA)>

<!ELEMENT protocol-nh (to | metric | indirect-nh | mpls-label | forwarding-nh-count | nh)*>

<!ELEMENT protocol-route-count (#PCDATA)>

<!ELEMENT protocols (protocol-name | protocol-route-count | active-route-count)*>

<!ELEMENT protocols-tlv (protocol)*>

<!ELEMENT psb-creation-time (#PCDATA)>

<!ELEMENT psb-lifetime (#PCDATA)>

<!ELEMENT purges-initiated (#PCDATA)>

<!ELEMENT reachability-delay EMPTY>

<!ELEMENT reachability-error EMPTY>

<!ELEMENT reachability-expense EMPTY>
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<!ELEMENT reachability-tlv (isis-topology-id | address-prefix | metric | prefix-flag | reachability-delay |
reachability-expense | reachability-error | address | neighbor-prefix | tlv-length)*>
<!ATTLIST reachability-tlv heading CDATA #IMPLIED>

<!ELEMENT receive-buffer-size (#PCDATA)>

<!ELEMENT receive-count (#PCDATA)>

<!ELEMENT receive-mode-ripng (#PCDATA)>

<!ELEMENT receive-mode-ripv2 (#PCDATA)>

<!ELEMENT received-prefix-count (#PCDATA)>

<!ELEMENT received-rro (#PCDATA)>

<!ELEMENT record-route (address | self | incomplete)*>
<!ATTLIST record-route heading CDATA #IMPLIED>

<!ELEMENT recovery-label-in (#PCDATA)>

<!ELEMENT recovery-label-out (#PCDATA)>

<!ELEMENT recovery-time (#PCDATA)>

<!ELEMENT reference-count (#PCDATA)>

<!ELEMENT reference-lsa-id (#PCDATA)>

<!ELEMENT reference-lsa-router-id (#PCDATA)>

<!ELEMENT reference-lsa-type (#PCDATA)>

<!ELEMENT reference-site (local-site-id | remote-site-id | interface | label-block | connection)*>

<!ELEMENT refresh-timer (#PCDATA)>

<!ELEMENT remaining-lifetime (#PCDATA)>

<!ELEMENT remote-interface (interface-name | interface-status | interface-encapsulation)*>

<!ELEMENT remote-pe (#PCDATA)>

<!ELEMENT remote-site-id (#PCDATA)>

<!ELEMENT reserved-bandwidth (bandwidth-priority | total-reserved-bandwidth)*>

<!ELEMENT restart-state (#PCDATA)>

<!ELEMENT restart-status (#PCDATA)>

<!ELEMENT restart-time (#PCDATA)>

<!ELEMENT resv-style (#PCDATA)>

<!ELEMENT retransmit-interval (#PCDATA)>

<!ELEMENT retry-limit (#PCDATA)>

<!ELEMENT retry-timer (#PCDATA)>

<!ELEMENT reuse-preference (#PCDATA)>
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<!ELEMENT reuse-time (#PCDATA)>
<!ATTLIST reuse-time junos:seconds CDATA #IMPLIED>

<!ELEMENT rib-bit (#PCDATA)>

<!ELEMENT rip-bad-messages (#PCDATA)>

<!ELEMENT rip-current-memory (#PCDATA)>

<!ELEMENT rip-error (rip-error-message)*>

<!ELEMENT rip-error-message (#PCDATA)>

<!ELEMENT rip-general-statistics (rip-protocol-name | rip-bad-messages | rip-interface-count |
rip-current-memory | rip-maximum-memory)*>

<!ELEMENT rip-general-statistics-information (rip-general-statistics)*>

<!ELEMENT rip-global-statistics (rip-routes-learned | rip-routes-holddown | rip-requests-dropped |
rip-responses-dropped)*>

<!ELEMENT rip-holddown (#PCDATA)>

<!ELEMENT rip-interface-count (#PCDATA)>

<!ELEMENT rip-local-address-ipv4 (#PCDATA)>

<!ELEMENT rip-local-address-ipv6 (#PCDATA)>

<!ELEMENT rip-maximum-memory (#PCDATA)>

<!ELEMENT rip-message (#PCDATA)>

<!ELEMENT rip-message-last-5minutes (#PCDATA)>

<!ELEMENT rip-message-last-minute (#PCDATA)>

<!ELEMENT rip-message-statistics (rip-message | rip-message-total | rip-message-last-5minutes |
rip-message-last-minute)*>

<!ELEMENT rip-message-total (#PCDATA)>

<!ELEMENT rip-neighbor (rip-neighbor-name | rip-neighbor-state | rip-neighbor-metric-in |
rip-local-address-ipv4 | rip-remote-address-ipv4 | send-mode-ripv2 | receive-mode-ripv2 |
rip-local-address-ipv6 | rip-remote-address-ipv6 | send-mode-ripng | receive-mode-ripng)*>
<!ATTLIST rip-neighbor junos:style CDATA #IMPLIED>

<!ELEMENT rip-neighbor-advertised-routes (#PCDATA)>

<!ELEMENT rip-neighbor-information (rip-neighbor)*>

<!ELEMENT rip-neighbor-learnt-routes (#PCDATA)>

<!ELEMENT rip-neighbor-metric-in (#PCDATA)>

<!ELEMENT rip-neighbor-name (#PCDATA)>

<!ELEMENT rip-neighbor-state (#PCDATA)>

<!ELEMENT rip-neighbor-statistics (rip-neighbor-name | rip-neighbor-learnt-routes |
rip-neighbor-advertised-routes | rip-message-statistics)*>
```

```
<!ELEMENT rip-port (#PCDATA)>

<!ELEMENT rip-protocol-name (#PCDATA)>

<!ELEMENT rip-remote-address-ipv4 (#PCDATA)>

<!ELEMENT rip-remote-address-ipv6 (#PCDATA)>

<!ELEMENT rip-requests-dropped (#PCDATA)>

<!ELEMENT rip-responses-dropped (#PCDATA)>

<!ELEMENT rip-restart-state (#PCDATA)>

<!ELEMENT rip-restart-time (#PCDATA)>

<!ELEMENT rip-restart-timeout (#PCDATA)>

<!ELEMENT rip-restart-values (rip-restart-state | rip-restart-time | rip-restart-timeout)*>

<!ELEMENT rip-routes-holddown (#PCDATA)>

<!ELEMENT rip-routes-learned (#PCDATA)>

<!ELEMENT rip-statistics-information (rip-timer-values | rip-restart-values | rip-global-statistics |
rip-neighbor-statistics)*>

<!ELEMENT rip-timeout (#PCDATA)>

<!ELEMENT rip-timer-values (rip-protocol-name | rip-port | rip-update-interval | rip-holddown |
rip-timeout)*>

<!ELEMENT rip-update-interval (#PCDATA)>

<!ELEMENT route (#PCDATA)>

<!ELEMENT route-count (#PCDATA)>

<!ELEMENT route-distinguisher (#PCDATA)>

<!ELEMENT route-filter (address | flags | extended-information)*>

<!ELEMENT route-flap-count (#PCDATA)>

<!ELEMENT route-flap-damping (merit | last-merit | damping-parameters | default-damping-parameters |
last-update | first-update | route-flap-count | suppressed | reuse-time | reuse-preference | expire-time)*>

<!ELEMENT route-information (as-number | router-id | route-table | rt-martians | rt-test-policy-prefix |
rt-test-policy)*>

<!ELEMENT route-origin (#PCDATA)>

<!ELEMENT route-path-type (#PCDATA)>

<!ELEMENT route-queue (timer | state | element)*>

<!ELEMENT route-queue-count (#PCDATA)>

<!ELEMENT route-reflector-client EMPTY>

<!ELEMENT route-summary-information (as-number | router-id | route-table)*>
```

```
<!ELEMENT route-table (protocols | table-name | destination-count | total-route-count | active-route-count
| holddown-route-count | hidden-route-count | restart-state | rt)*>

<!ELEMENT route-type (#PCDATA)>

<!ELEMENT route-version (#PCDATA)>

<!ELEMENT router-id (#PCDATA)>

<!ELEMENT router-id-tlv (router-id)*>

<!ELEMENT router-priority (#PCDATA)>

<!ELEMENT rpd-time (#PCDATA)>

<!ELEMENT rsb-count (#PCDATA)>

<!ELEMENT rsvp-error (error-message | error-count | error-count-5seconds)*>

<!ELEMENT rsvp-graceful-restart (restart-status | helper-status | restart-time | recovery-time)*>

<!ELEMENT rsvp-interface (interface-name | rsvp-status | active-control-channel |
control-channel-unusable | index | authentication-flag | aggregate-flag | ack-flag | protect-flag |
hello-interval | forward-rsvp | interface-address | loopback-address | rsvp-telink | message-statistics |
reserved-bandwidth | detour-bandwidth)*>
<!ATTLIST rsvp-interface junos:style CDATA #IMPLIED>

<!ELEMENT rsvp-interface-information (active-count | rsvp-interface)*>

<!ELEMENT rsvp-link-protect-status (#PCDATA)>

<!ELEMENT rsvp-link-protection-bypass-status (#PCDATA)>

<!ELEMENT rsvp-lp-backup-lsp-cnt (#PCDATA)>

<!ELEMENT rsvp-lp-backup-route-cnt (#PCDATA)>

<!ELEMENT rsvp-lp-bypass-name (#PCDATA)>

<!ELEMENT rsvp-message (#PCDATA)>

<!ELEMENT rsvp-neighbor (rsvp-neighbor-address | rsvp-neighbor-interface | rsvp-neighbor-status |
neighbor-idle | neighbor-up-count | neighbor-down-count | last-changed-time | hello-interval | hellos-sent |
hellos-received | messages-received | rsvp-neighbor-remote-instance | rsvp-neighbor-local-instance |
rsvp-message | rsvp-refresh-reduct-status | rsvp-refresh-reduct-remote-status |
rsvp-refresh-reduct-ack-status | rsvp-link-protect-status | rsvp-lp-bypass-name |
rsvp-link-protection-bypass-status | rsvp-lp-backup-route-cnt | rsvp-lp-backup-lsp-cnt | explicit-route |
rsvp-graceful-restart)*>
<!ATTLIST rsvp-neighbor heading CDATA #IMPLIED>
<!ATTLIST rsvp-neighbor junos:style CDATA #IMPLIED>

<!ELEMENT rsvp-neighbor-address (#PCDATA)>

<!ELEMENT rsvp-neighbor-count (#PCDATA)>

<!ELEMENT rsvp-neighbor-information (rsvp-neighbor-count | rsvp-neighbor)*>

<!ELEMENT rsvp-neighbor-interface (#PCDATA)>

<!ELEMENT rsvp-neighbor-local-instance (#PCDATA)>

<!ELEMENT rsvp-neighbor-remote-instance (#PCDATA)>
```

```
<!ELEMENT rsvp-neighbor-status (#PCDATA)>

<!ELEMENT rsvp-path-status (#PCDATA)>

<!ELEMENT rsvp-refresh-reduct-ack-status (#PCDATA)>

<!ELEMENT rsvp-refresh-reduct-remote-status (#PCDATA)>

<!ELEMENT rsvp-refresh-reduct-status (#PCDATA)>

<!ELEMENT rsvp-restart-flag (#PCDATA)>

<!ELEMENT rsvp-session (destination-address | is-detour | source-address | lsp-state | lsp-pktbytes |
no-statistics | route-count | rsb-count | resv-style | label-in | label-out | name | bidirectional |
upstream-label-in | upstream-label-out | suggested-label-in | suggested-label-out | recovery-label-in |
recovery-label-out | psb-lifetime | psb-creation-time | sender-tspec | lsp-id | tunnel-id | proto-id |
is-fastreroute | is-linkprotection | rsvp-path-status | packet-information | explicit-route | record-route |
detour | detour-branch | mpls-lsp)*>
<!ATTLIST rsvp-session junos:style CDATA #IMPLIED>

<!ELEMENT rsvp-session-data (session-type | count | display-count | up-count | down-count | detours |
rsvp-session)*>

<!ELEMENT rsvp-session-information (rsvp-session-data)*>

<!ELEMENT rsvp-statistics-information (message-statistics | rsvp-error)*>

<!ELEMENT rsvp-status (#PCDATA)>

<!ELEMENT rsvp-telink (telink-name | telink-local-id | active-reservation | subscription | static-bandwidth |
available-bandwidth | total-reserved-bandwidth | high-watermark | preemption-count | update-threshold |
reserved-bandwidth | detour-bandwidth)*>

<!ELEMENT rsvp-version (rsvp-status | rsvp-restart-flag | refresh-timer | keep-multiplier | preemption-type
| rsvp-graceful-restart)*>

<!ELEMENT rsvp-version-information (rsvp-version)*>

<!ELEMENT rt (rtrib-primary | rtrib-secondary | rt-destination | rt-prefix-length | rt-entry-count |
rt-announced-count | rt-state | rt-entry | tsi)*>
<!ATTLIST rt junos:style CDATA #IMPLIED>

<!ELEMENT rt-announced-count (#PCDATA)>

<!ELEMENT rt-destination (#PCDATA)>

<!ELEMENT rt-entry (active-tag | last-active | current-active | protocol-name | preference | preference2 |
route-distinguisher | color | color2 | age | metric | metric2 | rt-tag | rt-tag2 | learned-from | peer-as |
local-as | rt-entry-state | inactive-reason | task-name | announce-bits | announce-tasks | as-path |
local-preference | med | peer-id | route-flap-damping | aggregate | gateway | indirect-nh-count | nh-type |
nh | protocol-nh)*>

<!ELEMENT rt-entry-count (#PCDATA)>

<!ELEMENT rt-entry-state (#PCDATA)>

<!ELEMENT rt-martian-table-name (#PCDATA)>

<!ELEMENT rt-martians (rt-martian-table-name | route-filter)*>

<!ELEMENT rt-policy-name (#PCDATA)>
```

```
<!ELEMENT rt-policy-term-action (#PCDATA)>

<!ELEMENT rt-policy-term-name (#PCDATA)>

<!ELEMENT rt-policy-term-result (#PCDATA)>

<!ELEMENT rt-prefix-length (#PCDATA)>

<!ELEMENT rt-route-accepted (#PCDATA)>

<!ELEMENT rt-route-rejected (#PCDATA)>

<!ELEMENT rt-state (#PCDATA)>

<!ELEMENT rt-tag (#PCDATA)>

<!ELEMENT rt-tag2 (#PCDATA)>

<!ELEMENT rt-test-policy (rt-policy-name | rt-route-accepted | rt-route-rejected)*>

<!ELEMENT rt-test-policy-prefix (rt-policy-name | rt-destination | rt-prefix-length | rt-test-policy-term)*>

<!ELEMENT rt-test-policy-term (rt-policy-term-name | rt-policy-term-result | rt-policy-term-action)*>

<!ELEMENT rte-instance (instance-name | rte-instance-type | instance-flags | instance-options |
import-policy | export-policy)*>
<!ATTLIST rte-instance junos:style CDATA #IMPLIED>

<!ELEMENT rte-instance-type (#PCDATA)>

<!ELEMENT rte-table (table-name | table-export-on | import-list | table-flags | table-usage)*>
<!ATTLIST rte-table junos:style CDATA #IMPLIED>

<!ELEMENT rte-target (target-string | family | subaf | import-count | export-count | import-list |
export-list)*>
<!ATTLIST rte-target junos:style CDATA #IMPLIED>

<!ELEMENT rtexport-table-information (rte-table | rte-target | rte-instance)*>

<!ELEMENT rtrib-primary (#PCDATA)>

<!ELEMENT rtrib-secondary (#PCDATA)>

<!ELEMENT runt-header-error (#PCDATA)>

<!ELEMENT selected-next-hop EMPTY>

<!ELEMENT self EMPTY>

<!ELEMENT send-buffer-size (#PCDATA)>

<!ELEMENT send-count (#PCDATA)>

<!ELEMENT send-mode-ripng (#PCDATA)>

<!ELEMENT send-mode-ripv2 (#PCDATA)>

<!ELEMENT send-state (#PCDATA)>

<!ELEMENT send-time (#PCDATA)>

<!ELEMENT sender-tspec (#PCDATA)>
```

```
<!ELEMENT sequence-number (#PCDATA)>

<!ELEMENT session-type (#PCDATA)>

<!ELEMENT setup-priority (#PCDATA)>

<!ELEMENT short-packets-error (#PCDATA)>

<!ELEMENT signal-type (#PCDATA)>

<!ELEMENT skip-address (#PCDATA)>

<!ELEMENT snp-queue-drops (#PCDATA)>

<!ELEMENT snp-queue-length (#PCDATA)>

<!ELEMENT snpa (#PCDATA)>

<!ELEMENT source-address (#PCDATA)>

<!ELEMENT spf-runs (#PCDATA)>

<!ELEMENT spf-trigger-count (#PCDATA)>

<!ELEMENT start-time (#PCDATA)>
<!ATTLIST start-time junos:seconds CDATA #IMPLIED>

<!ELEMENT state (#PCDATA)>

<!ELEMENT static-bandwidth (#PCDATA)>

<!ELEMENT stub-area-mismatch-error (#PCDATA)>

<!ELEMENT subaf (#PCDATA)>

<!ELEMENT subnet-mismatch-error (#PCDATA)>

<!ELEMENT subscription (#PCDATA)>

<!ELEMENT subtlv-length (#PCDATA)>

<!ELEMENT subtlv-size (#PCDATA)>

<!ELEMENT successful (#PCDATA)>

<!ELEMENT suggested-label-in (#PCDATA)>

<!ELEMENT suggested-label-out (#PCDATA)>

<!ELEMENT suppressed EMPTY>

<!ELEMENT suppressed-external-prefix-count (#PCDATA)>

<!ELEMENT suppressed-internal-prefix-count (#PCDATA)>

<!ELEMENT suppressed-prefix-count (#PCDATA)>

<!ELEMENT switching-type (#PCDATA)>

<!ELEMENT sys-error (#PCDATA)>

<!ELEMENT system-id (#PCDATA)>
```

```
<!ELEMENT system-id-length (#PCDATA)>

<!ELEMENT system-name (#PCDATA)>

<!ELEMENT table-export-on (#PCDATA)>

<!ELEMENT table-flags (#PCDATA)>

<!ELEMENT table-name (#PCDATA)>

<!ELEMENT table-usage (#PCDATA)>

<!ELEMENT tag (#PCDATA)>

<!ELEMENT target-string (#PCDATA)>

<!ELEMENT task (task-name | task-no-information)*>

<!ELEMENT task-information (task)*>

<!ELEMENT task-name (#PCDATA)>

<!ELEMENT task-no-information EMPTY>

<!ELEMENT te-metric (#PCDATA)>

<!ELEMENT ted-database (ted-database-id | ted-database-id-overload | ted-database-type |
ted-database-age | ted-database-link-in | ted-database-link-out | ted-database-protocol | ted-link)*>
<!ATTLIST ted-database junos:style CDATA #IMPLIED>

<!ELEMENT ted-database-age (#PCDATA)>

<!ELEMENT ted-database-id (#PCDATA)>

<!ELEMENT ted-database-id-overload (#PCDATA)>

<!ELEMENT ted-database-inet-count (#PCDATA)>

<!ELEMENT ted-database-information (ted-database-summary | ted-database)*>

<!ELEMENT ted-database-iso-count (#PCDATA)>

<!ELEMENT ted-database-link-in (#PCDATA)>

<!ELEMENT ted-database-link-out (#PCDATA)>

<!ELEMENT ted-database-protocol (#PCDATA)>

<!ELEMENT ted-database-summary (ted-database-iso-count | ted-database-inet-count)*>

<!ELEMENT ted-database-type (#PCDATA)>

<!ELEMENT ted-link (ted-link-from | ted-link-to | ted-link-local-address | ted-link-remote-address |
admin-groups | ted-link-metric | ted-link-link-out | ted-link-static-bandwidth | ted-link-reservable-bandwidth
| ted-link-local-bw0 | ted-link-local-bw1 | ted-link-local-bw2 | ted-link-local-bw3 | ted-link-local-bw4 |
ted-link-local-bw5 | ted-link-local-bw6 | ted-link-local-bw7 | ted-link-avail-bw0 | ted-link-avail-bw1 |
ted-link-avail-bw2 | ted-link-avail-bw3 | ted-link-avail-bw4 | ted-link-avail-bw5 | ted-link-avail-bw6 |
ted-link-avail-bw7)*>
<!ATTLIST ted-link junos:style CDATA #IMPLIED>

<!ELEMENT ted-link-avail-bw0 (#PCDATA)>
```

```
<!ELEMENT ted-link-avail-bw1 (#PCDATA)>
<!ELEMENT ted-link-avail-bw2 (#PCDATA)>
<!ELEMENT ted-link-avail-bw3 (#PCDATA)>
<!ELEMENT ted-link-avail-bw4 (#PCDATA)>
<!ELEMENT ted-link-avail-bw5 (#PCDATA)>
<!ELEMENT ted-link-avail-bw6 (#PCDATA)>
<!ELEMENT ted-link-avail-bw7 (#PCDATA)>
<!ELEMENT ted-link-from (#PCDATA)>
<!ELEMENT ted-link-information (ted-link)*>
<!ELEMENT ted-link-link-out (#PCDATA)>
<!ELEMENT ted-link-local-address (#PCDATA)>
<!ELEMENT ted-link-local-bw0 (#PCDATA)>
<!ELEMENT ted-link-local-bw1 (#PCDATA)>
<!ELEMENT ted-link-local-bw2 (#PCDATA)>
<!ELEMENT ted-link-local-bw3 (#PCDATA)>
<!ELEMENT ted-link-local-bw4 (#PCDATA)>
<!ELEMENT ted-link-local-bw5 (#PCDATA)>
<!ELEMENT ted-link-local-bw6 (#PCDATA)>
<!ELEMENT ted-link-local-bw7 (#PCDATA)>
<!ELEMENT ted-link-metric (#PCDATA)>
<!ELEMENT ted-link-remote-address (#PCDATA)>
<!ELEMENT ted-link-reservable-bandwidth (#PCDATA)>
<!ELEMENT ted-link-static-bandwidth (#PCDATA)>
<!ELEMENT ted-link-to (#PCDATA)>
<!ELEMENT ted-protocol (ted-protocol-name | ted-protocol-credibility | ted-protocol-self-node)*>
<!ELEMENT ted-protocol-credibility (#PCDATA)>
<!ELEMENT ted-protocol-information (ted-protocol)*>
<!ELEMENT ted-protocol-name (#PCDATA)>
<!ELEMENT ted-protocol-self-node (#PCDATA)>
<!ELEMENT telink-local-id (#PCDATA)>
<!ELEMENT telink-name (#PCDATA)>
```

```
<!ELEMENT time (#PCDATA)>

<!ELEMENT time-to-adjust (#PCDATA)>

<!ELEMENT timer (#PCDATA)>

<!ELEMENT timestamp (#PCDATA)>

<!ELEMENT title (#PCDATA)>

<!ELEMENT tlv-block (tlv-type-name | tlv-type-value | tlv-length | bytes-left | formatted-tlv-data)*>

<!ELEMENT tlv-grace-type-name (#PCDATA)>

<!ELEMENT tlv-grace-value (#PCDATA)>

<!ELEMENT tlv-length (#PCDATA)>

<!ELEMENT tlv-stragglers (bytes-left)*>

<!ELEMENT tlv-type-name (#PCDATA)>

<!ELEMENT tlv-type-value (#PCDATA)>

<!ELEMENT to (#PCDATA)>

<!ELEMENT tos-0-metric (#PCDATA)>

<!ELEMENT tos-count (#PCDATA)>

<!ELEMENT total-database-summaries (#PCDATA)>

<!ELEMENT total-external-prefix-count (#PCDATA)>

<!ELEMENT total-internal-prefix-count (#PCDATA)>

<!ELEMENT total-linkstate-request (#PCDATA)>

<!ELEMENT total-paths (#PCDATA)>

<!ELEMENT total-prefix-count (#PCDATA)>

<!ELEMENT total-reserved-bandwidth (#PCDATA)>

<!ELEMENT total-retransmits (#PCDATA)>

<!ELEMENT total-route-count (#PCDATA)>

<!ELEMENT total-time (#PCDATA)>

<!ELEMENT totals-information (packets-received | packets-sent)*>

<!ELEMENT tracing-information (flags | filename | filesize | filelimit)*>

<!ELEMENT transition-count (#PCDATA)>

<!ELEMENT transmission-status (transmit-count | message | interface-name | transmit-time)*>

<!ELEMENT transmit-count (#PCDATA)>

<!ELEMENT transmit-time (#PCDATA)>
<!ATTLIST transmit-time junos:seconds CDATA #IMPLIED>
```

```
<!ELEMENT truncated-packets-error (#PCDATA)>

<!ELEMENT tsi (#PCDATA)>

<!ELEMENT tunnel-id (#PCDATA)>

<!ELEMENT type (#PCDATA)>

<!ELEMENT type-value (#PCDATA)>

<!ELEMENT type7 EMPTY>

<!ELEMENT unconfigured-peer-count (#PCDATA)>

<!ELEMENT unconfigured-peers (route-filter)*>

<!ELEMENT unknown-tlv (isis-tlv-type | tlv-length)*>

<!ELEMENT up-count (#PCDATA)>

<!ELEMENT up-transitions (#PCDATA)>

<!ELEMENT update-threshold (#PCDATA)>

<!ELEMENT upstream-label-in (#PCDATA)>

<!ELEMENT upstream-label-out (#PCDATA)>

<!ELEMENT via (#PCDATA)>

<!ELEMENT virtual-link-error (#PCDATA)>

<!ELEMENT vpn-rib-state (#PCDATA)>

<!ELEMENT vrf-export (#PCDATA)>

<!ELEMENT vrf-export-target (#PCDATA)>

<!ELEMENT vrf-import (#PCDATA)>

<!ELEMENT vrf-import-target (#PCDATA)>

<!ELEMENT warning-percentage (#PCDATA)>

<!ELEMENT weight (#PCDATA)>
```

Chapter 19
DTD for SNMP Response Tags

This chapter contains the document type definition (DTD) called junos-snmp.dtd, which lists the tags returned by the JUNOScript server to describe Simple Network Management Protocol (SNMP) settings. The associated Extensible Markup Language (XML) namespace is http://xml.juniper.net/junos/5.5R1/junos-snmp. To review reference pages for the tags, see "Summary of SNMP Response Tags" on page 356.

```
<!-- Copyright (c) 2000-2002, Juniper Networks, Inc. -->
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<!-- junos-snmp.dtd -->

<!ELEMENT alarm-creator (#PCDATA)>

<!ELEMENT alarm-index (#PCDATA)>

<!ELEMENT alarm-interval (#PCDATA)>

<!ELEMENT alarm-owner (#PCDATA)>

<!ELEMENT alarm-state (#PCDATA)>

<!ELEMENT alarm-value (#PCDATA)>

<!ELEMENT asn-parse-errors (#PCDATA)>

<!ELEMENT bad-community-names (#PCDATA)>

<!ELEMENT bad-community-uses (#PCDATA)>

<!ELEMENT bad-values (#PCDATA)>

<!ELEMENT bad-versions (#PCDATA)>

<!ELEMENT community (#PCDATA)>

<!ELEMENT currently-active (#PCDATA)>

<!ELEMENT event-creator (#PCDATA)>

<!ELEMENT event-descr (#PCDATA)>

<!ELEMENT event-index (#PCDATA)>

<!ELEMENT event-owner (#PCDATA)>

<!ELEMENT event-state (#PCDATA)>
```

```
<!ELEMENT event-type (#PCDATA)>

<!ELEMENT falling-event-index (#PCDATA)>

<!ELEMENT falling-threshold (#PCDATA)>

<!ELEMENT general-errors (#PCDATA)>

<!ELEMENT get-nexts (#PCDATA)>

<!ELEMENT get-requests (#PCDATA)>

<!ELEMENT get-responses (#PCDATA)>

<!ELEMENT group-deregisters (#PCDATA)>

<!ELEMENT group-registers (#PCDATA)>

<!ELEMENT group-removes (#PCDATA)>

<!ELEMENT last-time-sent (#PCDATA)>
<!ATTLIST last-time-sent junos:seconds CDATA #IMPLIED>

<!ELEMENT max-active (#PCDATA)>

<!ELEMENT max-latency (#PCDATA)>

<!ELEMENT no-such-names (#PCDATA)>

<!ELEMENT not-found (#PCDATA)>

<!ELEMENT packets (#PCDATA)>

<!ELEMENT proxy-drops (#PCDATA)>

<!ELEMENT read-onlys (#PCDATA)>

<!ELEMENT rising-event-index (#PCDATA)>

<!ELEMENT rising-threshold (#PCDATA)>

<!ELEMENT rmon-alarm (alarm-index | var-name | var-oid | sample-type | alarm-value | startup |
alarm-interval | rising-threshold | falling-threshold | rising-event-index | falling-event-index | alarm-owner |
alarm-creator | alarm-state)*>

<!ELEMENT rmon-alarm-information (rmon-alarm)*>
<!ATTLIST rmon-alarm-information junos:style CDATA #IMPLIED>

<!ELEMENT rmon-event (event-index | event-descr | event-type | community | last-time-sent | event-owner
| event-creator | event-state)*>

<!ELEMENT rmon-event-information (rmon-event)*>
<!ATTLIST rmon-event-information junos:style CDATA #IMPLIED>

<!ELEMENT rmon-information (rmon-alarm-information | rmon-event-information)*>

<!ELEMENT sample-type (#PCDATA)>

<!ELEMENT set-requests (#PCDATA)>

<!ELEMENT silent-drops (#PCDATA)>
```

```
<!ELEMENT snmp-input-statistics (packets | bad-versions | bad-community-names | bad-community-uses
| asn-parse-errors | too-bigs | no-such-names | bad-values | read-onlys | general-errors |
total-request-varbinds | total-set-varbinds | get-requests | get-nexts | set-requests | get-responses | traps
| silent-drops | proxy-drops)*>

<!ELEMENT snmp-output-statistics (packets | too-bigs | no-such-names | bad-values | general-errors |
get-requests | get-nexts | set-requests | get-responses | traps)*>

<!ELEMENT snmp-statistics (snmp-input-statistics | snmp-output-statistics | sub-agent-control-blocks |
sub-agent-registration)*>

<!ELEMENT startup (#PCDATA)>

<!ELEMENT sub-agent-control-blocks (total | currently-active | max-active | not-found | timed-out |
max-latency)*>

<!ELEMENT sub-agent-registration (group-registers | group-deregisters | group-removes)*>

<!ELEMENT timed-out (#PCDATA)>

<!ELEMENT too-bigs (#PCDATA)>

<!ELEMENT total (#PCDATA)>

<!ELEMENT total-request-varbinds (#PCDATA)>

<!ELEMENT total-set-varbinds (#PCDATA)>

<!ELEMENT traps (#PCDATA)>

<!ELEMENT var-name (#PCDATA)>

<!ELEMENT var-oid (#PCDATA)>
```

Chapter 20
DTD for System Process Information Response Tags

This chapter contains the document type definition (DTD) called junos-process.dtd, which lists the tags returned by the JUNOScript server to describe system processes (the information returned by the show system processes CLI command). The associated XML namespace is http://xml.juniper.net/junos/5.5R1/junos-process. To review reference pages for the tags, see "Summary of System Process Information Response Tags" on page 361.

```
<!-- Copyright (c) 2000-2002, Juniper Networks, Inc. -->
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<!-- junos-process.dtd -->

<!ELEMENT address (#PCDATA)>

<!ELEMENT advisory-lock EMPTY>

<!ELEMENT argument (#PCDATA)>

<!ELEMENT argument-index (#PCDATA)>

<!ELEMENT block-input-operation (#PCDATA)>

<!ELEMENT block-output-operation (#PCDATA)>

<!ELEMENT command (#PCDATA)>

<!ELEMENT command-line-argument (argument-index | argument)*>

<!ELEMENT command-line-argument-list (command-line-argument)*>

<!ELEMENT controlling-terminal EMPTY>

<!ELEMENT cpu-load (#PCDATA)>

<!ELEMENT data-size (#PCDATA)>
<!ATTLIST data-size junos:pages CDATA #IMPLIED>

<!ELEMENT debug-trace EMPTY>

<!ELEMENT debug-wait EMPTY>

<!ELEMENT exec EMPTY>

<!ELEMENT exiting EMPTY>

<!ELEMENT in-memory EMPTY>

<!ELEMENT interruptible EMPTY>
```

```
<!ELEMENT involuntary-context-switch (#PCDATA)>

<!ELEMENT login-id (#PCDATA)>

<!ELEMENT maximum-resident-set (#PCDATA)>

<!ELEMENT memory-load (#PCDATA)>

<!ELEMENT memory-page-size (#PCDATA)>

<!ELEMENT memory-statistics (memory-load | virtual-size | resident-set-size | resident-set-before-swap |
text-size | data-size | stack-size)*>

<!ELEMENT messages-received (#PCDATA)>

<!ELEMENT messages-sent (#PCDATA)>

<!ELEMENT nice (#PCDATA)>

<!ELEMENT page-faults (#PCDATA)>

<!ELEMENT page-reclaims (#PCDATA)>

<!ELEMENT parent-process-id (#PCDATA)>

<!ELEMENT physical-memory-pages (#PCDATA)>

<!ELEMENT priority (#PCDATA)>

<!ELEMENT process (process-id | login-id | start-time | parent-process-id | process-group-id | command |
command-line-argument-list | terminal-device | priority | nice | process-status | process-flags |
sleep-information | resource-usage | memory-statistics)*>

<!ELEMENT process-flags (interruptible | advisory-lock | controlling-terminal | in-memory | wait-child |
profiling | select | set-id-privileges | system-process | timing-out | debug-trace | debug-wait | exiting |
exec)*>

<!ELEMENT process-group-id (#PCDATA)>

<!ELEMENT process-id (#PCDATA)>

<!ELEMENT process-information (scale-information | process)*>

<!ELEMENT process-status (#PCDATA)>

<!ELEMENT profiling EMPTY>

<!ELEMENT reason (#PCDATA)>

<!ELEMENT resident-set-before-swap (#PCDATA)>
<!ATTLIST resident-set-before-swap junos:pages CDATA #IMPLIED>

<!ELEMENT resident-set-size (#PCDATA)>
<!ATTLIST resident-set-size junos:pages CDATA #IMPLIED>

<!ELEMENT resource-usage (cpu-load | user-time | system-time | maximum-resident-set | page-reclaims |
page-faults | swaps | block-input-operation | block-output-operation | messages-sent |
messages-received | signals | voluntary-context-switch | involuntary-context-switch)*>

<!ELEMENT scale-information (memory-page-size | physical-memory-pages)*>

<!ELEMENT select EMPTY>
```

```
<!ELEMENT set-id-privileges EMPTY>

<!ELEMENT signals (#PCDATA)>

<!ELEMENT sleep-information (reason | address)*>

<!ELEMENT stack-size (#PCDATA)>
<!ATTLIST stack-size junos:pages CDATA #IMPLIED>

<!ELEMENT start-time (#PCDATA)>
<!ATTLIST start-time junos:seconds CDATA #IMPLIED>

<!ELEMENT swaps (#PCDATA)>

<!ELEMENT system-process EMPTY>

<!ELEMENT system-time (#PCDATA)>
<!ATTLIST system-time junos:seconds CDATA #IMPLIED>
<!ATTLIST system-time junos:microseconds CDATA #IMPLIED>

<!ELEMENT terminal-device (#PCDATA)>

<!ELEMENT text-size (#PCDATA)>
<!ATTLIST text-size junos:pages CDATA #IMPLIED>

<!ELEMENT timing-out EMPTY>

<!ELEMENT user-time (#PCDATA)>
<!ATTLIST user-time junos:seconds CDATA #IMPLIED>
<!ATTLIST user-time junos:microseconds CDATA #IMPLIED>

<!ELEMENT virtual-size (#PCDATA)>

<!ELEMENT voluntary-context-switch (#PCDATA)>

<!ELEMENT wait-child EMPTY>
```

Chapter 21

DTD for UDP Forwarding Helper Response Tags

This chapter contains the document type definition (DTD) called junos-helper.dtd, which lists the tags returned by the JUNOScript server to describe output from the User Datagram Protocol (UDP) forwarding helper. The associated Extensible Markup Language (XML) namespace is http://xml.juniper.net/junos/5.5R1/junos-helper. To review reference pages for the tags, see "Summary of UDP Forwarding Helper Response Tags" on page 367.

```
<!-- Copyright (c) 2000-2002, Juniper Networks, Inc. -->
<!-- All rights reserved. -->
<!-- junos-helper.dtd -->

<!ELEMENT dropped-packets (#PCDATA)>

<!ELEMENT dropped-packets-badread (#PCDATA)>

<!ELEMENT dropped-packets-badsend (#PCDATA)>

<!ELEMENT dropped-packets-nointerface (#PCDATA)>

<!ELEMENT forwarded-packets (#PCDATA)>

<!ELEMENT helper-statistics-information (helper-statistics-service-information)*>

<!ELEMENT helper-statistics-service-information (service-name | received-packets | forwarded-packets |
dropped-packets | dropped-packets-nointerface | dropped-packets-badread |
dropped-packets-badsend)*>

<!ELEMENT received-packets (#PCDATA)>

<!ELEMENT service-name (#PCDATA)>
```

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