JUNOSe™ Software
for E-series™ Routing Platforms

Command Reference Guide A to M

Release 9.0.x

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About This Guide

This preface provides the following guidelines for using *JUNOSe™ Software for E-series™ Routing Platforms Command Reference Guide A to M*:

Objectives

This guide provides descriptions, syntax, parameter definitions, and release history for the commands in the JUNOSe CLI. Refer to the configuration guides for detailed information about configuring an E-series router.

An E-series router is shipped with the latest system software installed. If you need to install a future release or reinstall the system software, refer to the procedures in *JUNOSe System Basics Configuration Guide, Chapter 3, Installing JUNOSe Software*.

NOTE: If the information in the latest *JUNOSe Release Notes* differs from the information in this guide, follow the *JUNOSe Release Notes*.

Audience

This guide is intended for experienced system and network specialists working with E-series routers in an Internet access environment.

E-series Routers

Seven models of E-series routers are available:

- E120 router
- E320 router
- ERX-1440 router
- ERX-1410 router
- ERX-710 router
- ERX-705 router
- ERX-310 router

All models use the same software. For information about all models except the E120 router and the E320 router, see *ERX Hardware Guide, Chapter 1, ERX Overview*. For information about the E120 router and the E320 router, see *E120 and E320 Hardware Guide*, *Chapter 1*, *E120 and E320 Overview*.

In the E-series documentation, the term ERX-14xx models refers to both the ERX-1440 router and the ERX-1410 router. Similarly, the term ERX-7xx models refers to both the ERX-710 router and the ERX-705 router. The terms ERX-1440 router, ERX-1410 router, ERX-710 router, ERX-705 router, ERX-310 router, E120 router, and E320 router refer to the specific models.

Documentation Conventions

Table 1 defines notice icons used in this guide.

Table 1: Notice Icons

Icon	Meaning	Description
	Informational note	Indicates important features or instructions.
	Caution	Indicates a situation that might result in loss of data or hardware damage.
	Warning	Alerts you to the risk of personal injury.

Table 2 defines text conventions used in this guide and the syntax conventions used primarily in the *JUNOSe Command Reference Guide*. For more information about command syntax, see *JUNOSe System Basics Configuration Guide, Chapter 2, Command-Line Interface*.

Table 2: Text and Syntax Conventions

Convention	Description	Examples
Text Conventions		
Bold text like this	Represents commands and keywords in text.	■ Issue the **clock source** command. ■ Specify the keyword **exp-msg**.
Bold text like this	Represents text that the user must type.	host1(config)#**traffic class low-loss1**

`Fixed-width text like this`	Represents information as displayed on your terminal's screen.	`host1#show ip ospf 2`
		`Routing Process OSPF 2 with Router ID 5.5.0.250`
		`Router is an Area Border Router (ABR)`

Italic text like this	■ Emphasizes words. ■ Identifies variables. ■ Identifies chapter, appendix, and book names.	■ There are two levels of access, *user* and *privileged*. ■ *clusterId*, *ipAddress*. ■ *Appendix A*, *System Specifications*.
Plus sign (+) linking key names	Indicates that you must press two or more keys simultaneously.	Press Ctrl + b.
Syntax Conventions in the *Command Reference Guide*		
Plain text like this	Represents keywords.	terminal length
Italic text like this	Represents variables.	*mask*, *accessListName*
| (pipe symbol)	Represents a choice to select one keyword or variable to the left or right of this symbol. (The keyword or variable can be either optional or required.)	diagnostic | line
[ ] (brackets)	Represent optional keywords or variables.	[internal | external]
[ ]* (brackets and asterisk)	Represent optional keywords or variables that can be entered more than once.	[level1 | level2 | l1]*
{ } (braces)	Represent required keywords or variables.	{ permit | deny } { in | out } { *clusterId* | *ipAddress* }

Using the no Version Versus the default Version of Commands

Most router configuration commands have a **no** version, which you can use to negate a command (or a portion of it specified by an optional keyword) or restore its default setting. When you use a command *without* the keyword **no**, you can reenable a disabled feature or override a default setting. You have the option of using the **default** keyword whenever the **no** keyword is also a choice; simply enter the keyword **default** instead of **no**.

In most cases, when you execute the **default** version of a command, it produces the exact results as the **no** version. There are some commands for which the **default** version yields a different result than the **no** version.

Commands for which the **default** behavior differs from the **no** behavior are clearly identified in this guide. Unless otherwise specified, therefore, the **default** command is identical to the **no** command and is neither documented nor discussed.

The syntax for each **no** command is described in this guide. Some commands do not have a **no** version; this is indicated in the individual command descriptions except for the **show** commands, none of which has a **no** version.

The CLI can act on **no** versions of commands when you have entered sufficient information to distinguish the command syntactically, and ignores all subsequent input on that line.

To be compatible with some non–E-series implementations, the **no** versions of commands accept the same options as the affirmative version of the commands. The CLI ignores the optional input if it has no effect on the command behavior. If using the option changes the behavior of the **no** version, the individual command entry in this guide describes the difference in behavior.

Deprecated Commands

A command that has been deprecated in a release or in a particular configuration mode returns a notice when you issue the command manually:

> NOTICE: This command is obsolete. It may be completely removed from a subsequent software release.

A preferred alternate command is provided in the notice. If you have a script that uses the deprecated command, the deprecated command is automatically mapped to the preferred command when you run the script. If the deprecated command no longer has a function, then that command has no effect when you run a script containing the command.

We recommend that you use the preferred command when writing new scripts.

Filtering show Commands

You have access to a variety of **show** commands that display router and protocol information. You can filter the output of a **show** command by specifying | (the UNIX pipe symbol), one of the following keywords, and either a case-sensitive text string or a regular expression.

- **begin**—Displays output beginning with the first line that contains the text string or regular expression
- **include**—Displays output lines that contain the text string or regular expression and excludes lines that do not contain the text string or regular expression
- **exclude**—Displays output lines that do not contain the text string or regular expression and excludes lines that do contain the text string or regular expression

For a list of regular expressions, see *JUNOSe IP Services Configuration Guide, Chapter 1, Configuring Routing Policy*.

You can press Ctrl + c to interrupt the **show** command output.

NOTE: The router does not recognize beginning spaces of the text string. For example, if you enter the **include** option with IP as the text string on which to filter, the router ignores the space and displays lines that include words such as RIP.

Example In the following example, the output display consists only of lines that contain the string *ip*. The router omits all other lines of the output from the display because none of them contain the string *ip*.

```
host1#show config include-defaults | include ip
! Configuration script generated on FRI NOV 12 1999 16:56:41 UTC
ip address 192.168.1.229 255.255.255.0
ip rip receive version 2 1
ip rip send version 1
ip rip authentication mode md5 17
ip rip authentication key
ip route 10.6.0.0 255.255.0.0 192.168.1.1
ip route 10.10.0.0 255.255.0.0 192.168.1.1
ip route 10.10.0.166 255.255.255.255 192.168.1.1
ip debounce-time 0
router rip
```

Interface Types and Specifiers

Many commands take the variables *interfaceType* and *interfaceSpecifier*. Some commands support all types of interfaces, whereas other commands support only certain types of interfaces. Similarly, some commands support all interface specifier formats for a particular interface type, whereas other commands support only certain interface specifier formats.

Table 3 on page ix lists the interface specifiers for each type of interface on ERX-7xx models, ERX-14xx models, and the ERX-310 router.

Table 4 on page xv lists the interface specifiers for each type of interface on the E120 router and the E320 router.

Table 3: Interface Types and Specifiers for ERX-7xx Models, ERX-14xx Models, and ERX-310 Router

Interface Type	Description	Interface Specifier	Example
atm	ATM interface or ATM 1483 subinterface	Refer to the individual formats listed below.	
■ ATM interface or subinterface		To configure an ATM interface or subinterface: *slot*/*port*[.*subinterface*] ■ *slot*—Number of the chassis slot in the range 0–6 (ERX-7xx models), 0–13 (ERX-14xx models), and 0–2 (ERX-310 router) ■ *port*—Port number on the I/O module ■ *subinterface*—Number of the subinterface in the range 1–2147483647	atm 3/2.6

Table 3: Interface Types and Specifiers for ERX-7xx Models, ERX-14xx Models, and ERX-310 Router (continued)

Interface Type	Description	Interface Specifier	Example
■ ATM 1483 subinterface[a]		To display information about an ATM 1483 subinterface by using **show** commands: *slot*/*port*/*vpi*/*vci* ■ *slot*—Number of the chassis slot in the range 0–6 (ERX-7xx models), 0–13 (ERX-14xx models), and 0–2 (ERX-310 router) ■ *port*—Port number on the I/O module ■ *vpi*—Virtual path identifier of the PVC on this ATM 1483 subinterface; allowable numeric range depends on the module capabilities and current configuration ■ *vci*—Virtual circuit identifier of the PVC on this ATM 1483 subinterface; allowable numeric range depends on the module capabilities and current configuration	atm 3/2/1/2

fastEthernet	IEEE 802.3 Fast Ethernet (FE) interface	*slot*/*port*[.*subinterface1*[.*subinterface2*]]
		■ *slot*—Number of the chassis slot in the range 0–6 (ERX-7xx models), 0–13 (ERX-14xx models), and 0–2 (ERX-310 router)
		■ *port*—Port number on the I/O module or port 0 for the Fast Ethernet management port on the SRP I/O module
		The meaning of the *subinterface* variables depends on the configuration context. You can configure Fast Ethernet interfaces with or without VLANS.
		■ VLANs:
		  ■ *subinterface1*—Number of the VLAN subinterface in the range 1–2147483647; no more than 4096 VLAN subinterfaces per Fast Ethernet physical port
		  ■ *subinterface2*—When using PPPoE, the number of the PPPoE subinterface in the range 1–2147483647; no more than 4094 PPPoE subinterfaces per Fast Ethernet physical port
		■ No VLANs:
		  ■ *subinterface1*—When using PPPoE, the number of the PPPoE subinterface in the range 1–2147483647; no more than 4094 PPPoE subinterfaces per Fast Ethernet physical port
		  ■ *subinterface2*—Not used
			fastEthernet 3/2.6.20

Table 3: Interface Types and Specifiers for ERX-7xx Models, ERX-14xx Models, and ERX-310 Router (continued)

Interface Type	Description	Interface Specifier	Example
gigabitEthernet	IEEE 802.3 Gigabit Ethernet (GE) interface	*slot*/*port*[.*subinterface1*[.*subinterface2*]] ■ *slot*—Number of the chassis slot in the range 0–6 (ERX-7xx models), 0–13 (ERX-14xx models), and 0–2 (ERX-310 router) ■ *port*—Port number on the I/O module The meaning of the *subinterface* variables depends on the configuration context. You can configure Gigabit Ethernet interfaces with or without VLANs. ■ VLANs: ■ *subinterface1*—Number of the VLAN subinterface in the range 1–2147483647; no more than 4096 VLAN subinterfaces per Gigabit Ethernet physical port ■ *subinterface2*—When using PPPoE, the number of the PPPoE subinterface in the range 1–2147483647; no more than 4094 PPPoE subinterfaces per Gigabit Ethernet physical port ■ No VLANs: ■ *subinterface1*—When using PPPoE, the number of the PPPoE subinterface in the range 1–2147483647; no more than 4094 PPPoE subinterfaces per Gigabit Ethernet physical port ■ *subinterface2*—Not used	gigabitEthernet 3/0.6.20
lag	IEEE 802.3ad link aggregation group (LAG) interface	*bundle-name*[.*subinterface*] ■ *bundle-name*—Name of the bundle ■ *subinterface*—Number of the LAG subinterface in the range 1–2147483647	lag paris.2
loopback	Loopback interface	*integer* ■ *integer*—Integer in the range 1–4294967293	loopback 20
mlframe-relay	Multilink frame relay interface	*bundle-name*[.*subinterface*] ■ *bundle-name*—Name of the bundle ■ *subinterface*—Number of the MLFR subinterface in the range 1–4294967293	mlframe-relay boston.1
mlppp	Multilink PPP interface	*bundle-name* ■ *bundle-name*—Name of the bundle	mlppp chicago
mplsL2shim	MPLS shim interface	*slot*/*port*[.*subinterface*] ■ *slot*—Number of the chassis slot in the range 0–6 (ERX-7xx models), 0–13 (ERX-14xx models), and 0–2 (ERX-310 router) ■ *port*—Port number on the I/O module ■ *subinterface*—Number of the subinterface in the range 1–2147483647	mplsL2shim 3/2.1

Table 3: Interface Types and Specifiers for ERX-7xx Models, ERX-14xx Models, and ERX-310 Router (continued)

Interface Type	Description	Interface Specifier	Example
mplsMajor	MPLS major interface	*slot*/*port*[.*subinterface*] ■ *slot*—Number of the chassis slot in the range 0–6 (ERX-7xx models), 0–13 (ERX-14xx models), and 0–2 (ERX-310 router) ■ *port*—Port number on the I/O module ■ *subinterface*—Number of the subinterface in the range 1–2147483647	mplsMajor 3/2.1
mplsMinor	MPLS minor interface	[*vr*:]*tunnel-name* ■ *vr*—Name of a virtual router ■ *tunnel-name*—Name of the tunnel	mplsMinor lsp-02020202-1-4
null[b]	Null interface, which cannot forward or receive traffic	0	null 0
pos	Packet over SONET (POS) interface	*slot*/*port*[.*subinterface*] ■ *slot*—Number of the chassis slot in the range 0–6 (ERX-7xx models), 0–13 (ERX-14xx models), and 0–2 (ERX-310 router) ■ *port*—Port number on the I/O module ■ *subinterface*—Number of the subinterface in the range 1–2147483647[c]	pos 3/2
serial	CT3, E3 Frame, T3 Frame, or cOCx/STMx interface	Refer to the individual formats listed below.	
■ CT3		*slot*/*port*:*channel*/*subchannel*[.*subinterface*] ■ *slot*—Number of the chassis slot in the range 0–6 (ERX-7xx models) and 0–13 (ERX-14xx models) ■ *port*—Port number on the I/O module ■ *channel*—Number of a T1 channel on a CT3 module; in the range 1–28 ■ *subchannel*—Number of the channel group associated with a range of DS0 timeslots on a CT3 module; in the range 1–28 ■ *subinterface*—Number of the subinterface in the range 1–2147483647[c]	serial 3/2:20/15
■ E3/T3 Frame		*slot*/*port*[.*subinterface*] ■ *slot*—Number of the chassis slot in the range 0–6 (ERX-7xx models) and 0–13 (ERX-14xx models) ■ *port*—Port number on the I/O module ■ *subinterface*—Number of the subinterface in the range 1–2147483647[c]	serial 3/2

Table 3: Interface Types and Specifiers for ERX-7xx Models, ERX-14xx Models, and ERX-310 Router (continued)

Interface Type	Description	Interface Specifier	Example
■ cOCx/STMx: unframed E1		*slot/port:path-channel/path-payload/ tributary-group/tributary-number/ channelNumber*[.*subinterface*] ■ *slot*—Number of the chassis slot in the range 0–6 (ERX-7xx models), 0–13 (ERX-14xx models), and 0–2 (ERX-310 router) ■ *port*—Port number on the I/O module ■ *path-channel*—Number of the STS-1or STM-0 line in the range 1–2147483648 ■ *path-payload*—Number of the payload within the path ■ *tributary-group*—Number of the tributary group within the path ■ *tributary-number*—Number of the tributary within the group ■ *channelNumber*—1 (the router assigns the number one to an unframed E1 channel) ■ *subinterface*—Number of the subinterface in the range 1–2147483647[c]	serial 3/0:10/1/2/2/1
■ cOCx/STMx: fractional E1/T1		*slot/port:path-channel/path-payload/ tributary-group/tributary-number/ channel-group*[.*subinterface*] ■ *slot*—Number of the chassis slot in the range 0–6 (ERX-7xx models), 0–13 (ERX-14xx models), and 0–2 (ERX-310 router) ■ *port*—Port number on the I/O module ■ *path-channel*—Number of the STS-1or STM-0 line in the range 1–2147483648 ■ *path-payload*—Number of the payload within the path ■ *tributary-group*—Number of the tributary group within the path ■ *tributary-number*—Number of the tributary within the group ■ *channel-group*—Number of a fractional T1 or E1 line ■ *subinterface*—Number of the subinterface in the range 1–2147483647[c]	serial 3/0:10/1/2/2/1
■ cOCx/STMx: unchannelized DS3		*slot/port:path-channel/ds3-channel-number* [.*subinterface*] ■ *slot*—Number of the chassis slot in the range 0–6 (ERX-7xx models), 0–13 (ERX-14xx models), and 0–2 (ERX-310 router) ■ *port*—Port number on the I/O module ■ *path-channel*—Number of the STS-1or STM-0 line in the range 1–2147483648 ■ *ds3-channel-number*—Number of a T3 channel ■ *subinterface*—Number of the subinterface in the range 1–2147483647[c]	serial 3/0:1/1

Table 3: Interface Types and Specifiers for ERX-7xx Models, ERX-14xx Models, and ERX-310 Router (continued)

Interface Type	Description	Interface Specifier	Example
■ cOCx/STMx: DS3 channelized to DS0		*slot/port:path-channel/ds3-channel-number/ds1-channel-number/subchannel-number* [*.subinterface*] ■ *slot*—Number of the chassis slot in the range 0–6 (ERX-7xx models), 0–13 (ERX-14xx models), and 0–2 (ERX-310 router) ■ *port*—Port number on the I/O module ■ *path-channel*—Number of the STS-1or STM-0 line in the range 1–2147483648 ■ *ds3-channel-number*—Number of a T3 channel ■ *ds1-channel-number*—Number of a T1 channel ■ *subchannel-number*—Number of a fractional T1 channel ■ *subinterface*—Number of the subinterface in the range 1–2147483647[c]	serial 3/0:1/1/10/15
sonet – line layer	Line layer of a SONET/SDH interface	*slot/port* ■ *slot*—Number of the chassis slot in the range 0–6 (ERX-7xx models), 0–13 (ERX-14xx models), and 0–2 (ERX-310 router) ■ *port*—Port number on the I/O module	sonet 3/0
sonet – path layer	Path layer of a SONET/SDH interface	*slot/port:path-channel* ■ *slot*—Number of the chassis slot in the range 0–6 (ERX-7xx models), 0–13 (ERX-14xx models), and 0–2 (ERX-310 router) ■ *port*—Port number on the I/O module ■ *path-channel*—Number of the STS-1or STM-0 line in the range 1–2147483648	sonet 3/0:2
sonet – section layer	Section layer of a SONET/SDH interface	*slot/port* ■ *slot*—Number of the chassis slot in the range 0–6 (ERX-7xx models), 0–13 (ERX-14xx models), and 0–2 (ERX-310 router) ■ *port*—Port number on the I/O module	sonet 3/0
tunnel	Tunnel interface	*tunnel-type:tunnel-name*[*.subinterface*] ■ *tunnel-type*—Type of the tunnel: dvmrp, gre, ipsec, l2tp, or mpls ■ *tunnel-name*—Name of the tunnel ■ *subinterface*—For GRE tunnels, number of the subinterface in the range 1–2147483647[c]	tunnel gre:boston

a.You can use the **atm** *slot/port/vpi/vci* interface specifier format as an alternative to the **atm** *slot/port.subinterface* format with the specific **show interface** and **show subinterface** commands to monitor all ATM 1483 subinterfaces (except NBMA interfaces) as well as the upper-layer interfaces configured over an ATM 1483 subinterface. You cannot, however, use the **atm** *slot/port/vpi/vci* format to create or modify an ATM 1483 subinterface.

b.You cannot configure values on the null interface. This interface acts as a data sink; it cannot forward or receive traffic.

Table 4: Interface Types and Specifiers for E120 Router and E320 Router

Interface Type	Description	Interface Specifier	Example
atm	ATM interface or ATM 1483 subinterface	Refer to the individual formats listed below.	
■ ATM interface or subinterface		To configure an ATM interface or subinterface: *slot*/*adapter*/*port*[.*subinterface*] ■ *slot*—Number of the chassis slot in the range 0–5 (E120 router) and 0–5 or 11–16 (E320 router) ■ *adapter*—Identifier for the IOA within the chassis slot, either 0 or 1, where: ■ 0 indicates that the IOA is installed in the right IOA bay (E120 router) or the upper IOA bay (E320 router). ■ 1 indicates that the IOA is installed in the left IOA bay (E120 router) or the lower IOA bay (E320 router). ■ *port*—Port number on the IOA ■ *subinterface*—Number of the subinterface in the range 1–2147483647	atm 3/1/7.6
■ ATM 1483 subinterface[a]		To display information about an ATM 1483 subinterface by using **show** commands: *slot*/*adapter*/*port*/*vpi*/*vci* ■ *slot*—Number of the chassis slot in the range 0–5 (E120 router) and 0–5 or 11–16 (E320 router) ■ *adapter*—Identifier for the IOA within the chassis slot, either 0 or 1, where: ■ 0 indicates that the IOA is installed in the right IOA bay (E120 router) or the upper IOA bay (E320 router). ■ 1 indicates that the IOA is installed in the left IOA bay (E120 router) or the lower IOA bay (E320 router). ■ *port*—Port number on the IOA ■ *vpi*—Virtual path identifier of the PVC on this ATM 1483 subinterface; numeric range for the E120 and E320 routers is 0–255 ■ *vci*—Virtual circuit identifier of the PVC on this ATM 1483 subinterface; numeric range for the E120 and E320 routers is 1–65535	atm 3/1/7/1/2

Table 4: Interface Types and Specifiers for E120 Router and E320 Router (continued)

Interface Type	Description	Interface Specifier	Example
fastEthernet (for Fast Ethernet management port on SRP IOA)	IEEE 802.3 Fast Ethernet (FE) interface	*slot/adapter/port* ■ *slot*—Number of the chassis slot, either 6 or 7 ■ *adapter*—Identifier for the SRP I/O adapter (IOA) within the chassis slot; always 0 ■ *port*—Port number on the SRP IOA; always 0	fastEthernet 6/0/0

gigabitEthernet	IEEE 802.3 Gigabit Ethernet (GE) interface	*slot/adapter/port*[.*subinterface1*[.*subinterface2*]]
		■ *slot*—Number of the chassis slot in the range 0–5 (E120 router) and 0–5 or 11–16 (E320 router)
		■ *adapter*—Identifier for the IOA within the chassis slot, either 0 or 1, where:
		  ■ 0 indicates that the IOA is installed in the right IOA bay (E120 router) or the upper IOA bay (E320 router).
		  ■ 1 indicates that the IOA is installed in the left IOA bay (E120 router) or the lower IOA bay (E320 router).
		■ *port*—Port number on the IOA
		The meaning of the *subinterface* variables depends on the configuration context. You can configure Gigabit Ethernet interfaces with or without VLANs.
		■ VLANs:
		  ■ *subinterface1*—Number of the VLAN subinterface in the range 1–2147483647; no more than 4096 VLAN subinterfaces per Gigabit Ethernet physical port
		  ■ *subinterface2*—When using PPPoE, the number of the PPPoE subinterface in the range 1–2147483647; no more than 4094 PPPoE subinterfaces per Gigabit Ethernet physical port
		■ No VLANs:
		  ■ *subinterface1*—When using PPPoE, the number of the PPPoE subinterface in the range 1–2147483647; no more than 4094 PPPoE subinterfaces per Gigabit Ethernet physical port
		  ■ *subinterface2*—Not used
			gigabitEthernet 4/0/1.20

lag	IEEE 802.3ad link aggregation group (LAG) interface	*bundle-name*[.*subinterface*] ■ *bundle-name*—Name of the bundle ■ *subinterface*—Number of the LAG subinterface in the range 1–2147483647	lag paris.2

Table 4: Interface Types and Specifiers for E120 Router and E320 Router (continued)

Interface Type	Description	Interface Specifier	Example
mplsL2shim	MPLS shim interface	*slot/adapter/port*[.*subinterface*] ■ *slot*—Number of the chassis slot in the range 0–5 (E120 router) and 0–5 or 11–16 (E320 router) ■ *adapter*—Identifier for the IOA within the chassis slot, either 0 or 1, where: ■ 0 indicates that the IOA is installed in the right IOA bay (E120 router) or the upper IOA bay (E320 router). ■ 1 indicates that the IOA is installed in the left IOA bay (E120 router) or the lower IOA bay (E320 router). ■ *port*—Port number on the IOA ■ *subinterface*—Number of the subinterface in the range 1–2147483647	mplsL2shim 3/0/2.1
mplsMajor	MPLS major interface	*slot/adapter/port*[.*subinterface*] ■ *slot*—Number of the chassis slot in the range 0–5 (E120 router) and 0–5 or 11–16 (E320 router) ■ *adapter*—Identifier for the IOA within the chassis slot, either 0 or 1, where: ■ 0 indicates that the IOA is installed in the right IOA bay (E120 router) or the upper IOA bay (E320 router). ■ 1 indicates that the IOA is installed in the left IOA bay (E120 router) or the lower IOA bay (E320 router). ■ *port*—Port number on the IOA ■ *subinterface*—Number of the subinterface in the range 1–2147483647	mplsMajor 3/0/2.1
mplsMinor	MPLS minor interface	[*vr*:]*tunnel-name* ■ *vr*—Name of a virtual router ■ *tunnel-name*—Name of the tunnel	mplsMinor lsp-02020202-1-4
pos	Packet over SONET (POS) interface	*slot/adapter/port* ■ *slot*—Number of the chassis slot in the range 0–5 (E120 router) and 0–5 or 11–16 (E320 router) ■ *adapter*—Identifier for the IOA within the chassis slot, either 0 or 1, where: ■ 0 indicates that the IOA is installed in the right IOA bay (E120 router) or the upper IOA bay (E320 router). ■ 1 indicates that the IOA is installed in the left IOA bay (E120 router) or the lower IOA bay (E320 router). ■ *port*—Port number on the IOA	pos 5/0/0

Table 4: Interface Types and Specifiers for E120 Router and E320 Router (continued)

Interface Type	Description	Interface Specifier	Example
sonet – line layer	Line layer of a SONET/SDH interface	*slot/adapter/port* ■ *slot*—Number of the chassis slot in the range 0–5 (E120 router) and 0–5 or 11–16 (E320 router) ■ *adapter*—Identifier for the IOA within the chassis slot, either 0 or 1, where: ■ 0 indicates that the IOA is installed in the right IOA bay (E120 router) or the upper IOA bay (E320 router). ■ 1 indicates that the IOA is installed in the left IOA bay (E120 router) or the lower IOA bay (E320 router). ■ *port*—Port number on the IOA	sonet 3/0/0
sonet – path layer	Path layer of a SONET/SDH interface	*slot/adapter/port* ■ *slot*—Number of the chassis slot in the range 0–5 (E120 router) and 0–5 or 11–16 (E320 router) ■ *adapter*—Identifier for the IOA within the chassis slot, either 0 or 1, where: ■ 0 indicates that the IOA is installed in the right IOA bay (E120 router) or the upper IOA bay (E320 router). ■ 1 indicates that the IOA is installed in the left IOA bay (E120 router) or the lower IOA bay (E320 router). ■ *port*—Port number on the IOA	sonet 3/0/0
sonet – section layer	Section layer of a SONET/SDH interface	*slot/adapter/port* ■ *slot*—Number of the chassis slot in the range 0–5 (E120 router) and 0–5 or 11–16 (E320 router) ■ *adapter*—Identifier for the IOA within the chassis slot, either 0 or 1, where: ■ 0 indicates that the IOA is installed in the right IOA bay (E120 router) or the upper IOA bay (E320 router). ■ 1 indicates that the IOA is installed in the left IOA bay (E120 router) or the lower IOA bay (E320 router). ■ *port*—Port number on the IOA	sonet 3/0/0

Table 4: Interface Types and Specifiers for E120 Router and E320 Router (continued)

Interface Type	Description	Interface Specifier	Example
tenGigabitEthernet	IEEE 802.3ae 10-Gigabit Ethernet (GE) interface	*slot*/*adapter*/*port*[.*subinterface1*[.*subinterface2*]] ■ *slot*—Number of the chassis slot in the range 0–5 (E120 router) and 0–5 or 11–16 (E320 router) ■ *adapter*—Identifier for the IOA within the chassis slot. 0 indicates that this a full-height IOA. ■ *port*—Port number on the IOA The meaning of the *subinterface* variables depends on the configuration context. You can configure 10-Gigabit Ethernet interfaces with or without VLANs. ■ VLANs: ▪ *subinterface1*—Number of the VLAN subinterface in the range 1–2147483647; no more than 4096 VLAN subinterfaces per 10-Gigabit Ethernet physical port ▪ *subinterface2*—When using PPPoE, the number of the PPPoE subinterface in the range 1–2147483647; no more than 4094 PPPoE subinterfaces per 10-Gigabit Ethernet physical port ■ No VLANs: ▪ *subinterface1*—When using PPPoE, the number of the PPPoE subinterface in the range 1–2147483647; no more than 4094 PPPoE subinterfaces per 10-Gigabit Ethernet physical port ▪ *subinterface2*—Not used	tenGigabitEthernet 4/0/1.20
tunnel	Tunnel interface	*tunnel-type:tunnel-name[.subinterface]* ■ *tunnel-type*—Type of the tunnel: dvmrp, gre, l2tp, or mpls ■ *tunnel-name*—Name of the tunnel ■ *subinterface*—For GRE tunnels, number of the subinterface in the range 1–2147483647[b]	tunnel gre:boston

a.You can use the **atm** *slot*/*adapter*/*port*/*vpi*/*vci* interface specifier format as an alternative to the **atm** *slot*/*adapter*/*port*.*subinterface* format with the specific **show interface** and **show subinterface** commands to monitor all ATM 1483 subinterfaces (except NBMA interfaces) as well as the upper-layer interfaces configured over an ATM 1483 subinterface. You cannot, however, use the **atm** *slot*/*adapter*/*port*/*vpi*/*vci* format to create or modify an ATM 1483 subinterface.

b.You cannot configure values on the null interface. This interface acts as a data sink; it cannot forward or receive traffic.

Related E-series and JUNOSe Documentation

The E-series and JUNOSe documentation set consists of several hardware and software guides, which are available in electronic and printed formats.

E-series and JUNOSe Documents

Table 5 lists and describes the E-series and JUNOSe document set. For a complete list of abbreviations used in this document set, along with their spelled-out terms, see *JUNOSe System Basics Configuration Guide, Appendix A, Abbreviations and Acronyms*.

Table 5: Juniper Networks E-series and JUNOSe Technical Publications

Document	Description
E-series Hardware Documentation	
E120 and E320 Quick Start Guide	Shipped in the box with all new E120 and E320 routers. Provides the basic procedures to help you get the routers up and running quickly.
E120 and E320 Hardware Guide	Provides the necessary procedures for getting E120 routers and E320 routers operational, including information about: ■ Installing the chassis and modules ■ Connecting cables ■ Powering up the routers ■ Configuring the routers for management access ■ Troubleshooting common issues Describes switch route processor (SRP) modules, line modules, and I/O adapters (IOAs) available for E120 and E320 routers.
E120 and E320 Module Guide	Provides detailed specifications for line modules and IOAs in E120 and E320 routers, and information about the compatibility of these modules with JUNOSe software releases. Lists the layer 2 protocols, layer 3 protocols, and applications that line modules and their corresponding IOAs support. Provides module LED information.
E-series Installation Quick Start poster or *ERX Quick Start Guide*	Shipped in the box with all new ERX routers. Provides the basic procedures to help you get an ERX router up and running quickly.
ERX Hardware Guide	Provides the necessary procedures for getting ERX-14xx models, ERX-7xx models, and ERX-310 routers operational, including information about: ■ Installing the chassis and modules ■ Connecting cables ■ Powering up the routers ■ Configuring the routers for management access ■ Troubleshooting common issues Describes switch route processor (SRP) modules, line modules, and I/O modules available for the ERX routers.
ERX Module Guide	Provides detailed specifications for line modules and I/O modules in ERX-14xx models, ERX-7xx models, and ERX-310 routers, and information about the compatibility of these modules with JUNOSe software releases. Lists the layer 2 protocols, layer 3 protocols, and applications that line modules and their corresponding I/O modules support. Provides module LED information.

Table 5: Juniper Networks E-series and JUNOSe Technical Publications (continued)

Document	Description
ERX End-of-Life Module Guide	Provides an overview and description of ERX modules that are end-of-life (EOL) and can no longer be ordered for the following routers: ■ ERX-7xx models ■ ERX-14xx models ■ ERX-310 router
JUNOSe Software Guides	
JUNOSe System Basics Configuration Guide	Provides information about: ■ Planning and configuring your network ■ Using the command-line interface (CLI) ■ Installing JUNOSe software ■ Configuring the Simple Network Management Protocol (SNMP) ■ Managing the router and its modules, including the use of high availability (HA) for SRP redundancy ■ Configuring and running a unified in-service software upgrade (ISSU) ■ Configuring passwords and security ■ Configuring the router clock ■ Configuring virtual routers
JUNOSe Physical Layer Configuration Guide	Explains how to configure, test, and monitor physical layer interfaces.
JUNOSe Link Layer Configuration Guide	Explains how to configure and monitor static and dynamic link layer interfaces.
JUNOSe IP, IPv6, and IGP Configuration Guide	Explains how to configure and monitor IP, IPv6 and Neighbor Discovery, and interior gateway protocols (RIP, OSPF, and IS-IS).
JUNOSe IP Services Configuration Guide	Explains how to configure and monitor IP routing services. Topics include: ■ Routing policies ■ Firewalls ■ Network Address Translation (NAT) ■ J-Flow statistics ■ Bidirectional forwarding detection (BFD) ■ Internet Protocol Security (IPSec) ■ Access Node Control Protocol (ANCP), also known as Layer 2 Control (L2C) ■ Digital certificates ■ IP tunnels ■ Virtual Router Redundancy Protocol (VRRP) ■ Mobile IP home agent
JUNOSe Multicast Routing Configuration Guide	Explains how to configure and monitor IP multicast routing and IPv6 multicast routing. Topics include: ■ Internet Group Management Protocol (IGMP) ■ Protocol Independent Multicast (PIM) ■ Distance Vector Multicast Routing Protocol (DVMRP) ■ Multicast Listener Discovery (MLD)

Table 5: Juniper Networks E-series and JUNOSe Technical Publications (continued)

Document	Description
JUNOSe BGP and MPLS Configuration Guide	Explains how to configure and monitor: ■ Border Gateway Protocol (BGP) routing ■ Multiprotocol Label Switching (MPLS) and related applications ■ Layer 2 services over MPLS ■ Virtual private LAN service (VPLS) ■ Layer 2 virtual private networks (L2VPNs)
JUNOSe Policy Management Configuration Guide	Explains how to configure, manage, and monitor customized policy rules for packet classification, forwarding, filtering, and flow rates. Also describes the packet mirroring feature, which uses secure policies.
JUNOSe Quality of Service Configuration Guide	Explains how to configure quality of service (QoS) features to queue, schedule, and monitor traffic flow. These features include: ■ Traffic classes and traffic-class groups ■ Drop, queue, QoS, and scheduler profiles ■ QoS parameters ■ Statistics
JUNOSe Broadband Access Configuration Guide	Explains how to configure and monitor a remote access environment, which can include the following features: ■ Authentication, authorization, and accounting (AAA) ■ Dynamic Host Configuration Protocol (DHCP) ■ Remote Authentication Dial-In User Service (RADIUS) ■ Terminal Access Controller Access Control System (TACACS+) ■ Layer 2 Tunneling Protocol (L2TP) ■ Subscriber management
JUNOSe System Event Logging Reference Guide	Describes the JUNOSe system logging feature and describes how to use the CLI to monitor your system's log configuration and system events.
JUNOSe Command Reference Guide A to M; JUNOSe Command Reference Guide N to Z	Together constitute the *JUNOSe Command Reference Guide*. Contain important information about commands implemented in the system software. Use to look up: ■ Descriptions of commands and command parameters ■ Command syntax ■ A command's related mode ■ Starting with JUNOSe Release 7.1.0, a history of when a command, its keywords, and its variables were introduced or added Use with the JUNOSe configuration guides.
JUNOSe Comprehensive Index	Provides a complete index of the JUNOSe software documentation set.
JUNOSe Glossary	Provides definitions for terms used in JUNOSe technical documentation.
Release Notes	
JUNOSe Release Notes	Provide the latest information about features, changes, known problems, resolved problems, and system maximum values. If the information in the *Release Notes* differs from the information found in the documentation set, follow the *Release Notes*. Release notes are included on the corresponding software CD and are available on the Web.

JUNOSe Configuration Guides

JUNOSe software configuration guides use a bottom-up approach to describe the relationship of layers, protocols, and interfaces in the configuration process. For more information, see *Layered Approach* in *JUNOSe System Basics Configuration Guide, Chapter 1, Planning Your Network*.

The chapters in JUNOSe software configuration guides typically include the following topics:

- Conceptual and overview information
- Information you need to know or tasks you need to perform before you begin
- Platform-specific issues you need to take into consideration
- Applicable references, such as RFCs and IETF draft documents, about the protocols and features supported by the router
- Required and optional tasks, as step-by-step procedures
- Descriptions and examples of the commands you use
- Illustrations of network topologies
- Examples of command sequences for configuration, testing, and monitoring activities
- Sample displays that result when you issue the **show** command

Obtaining Documentation

To obtain the most current version of all Juniper Networks technical documentation, see the products documentation page on the Juniper Networks Web site at http://www.juniper.net/.

To order printed copies of this manual and other Juniper Networks technical documents or to order a documentation CD, which contains this manual, contact your sales representative.

Copies of the Management Information Bases (MIBs) available in a software release are included on the software CDs and at http://www.juniper.net/.

Documentation Feedback

We encourage you to provide feedback, comments, and suggestions so that we can improve the documentation to better meet your needs. Send your comments to techpubs-comments@juniper.net, or fill out the documentation feedback form at http://www.juniper.net/techpubs/docbug/docbugreport.html. If you are using e-mail, be sure to include the following information with your comments:

- Document name
- Document part number

- Page number
- Software release version

Requesting Technical Support

Technical product support is available through the Juniper Networks Technical Assistance Center (JTAC). If you are a customer with an active J-Care or JNASC support contract, or are covered under warranty, and need post-sales technical support, you can access our tools and resources online or open a case with JTAC.

- **JTAC Policies**—For a complete understanding of our JTAC procedures and policies, review the *JTAC User Guide* located at http://www.juniper.net/customers/support/downloads/710059.pdf
- **Product Warranties**—For product warranty information, visit http://www.juniper.net/support/warranty/
- **JTAC Hours of Operation**—The JTAC centers have resources available 24 hours a day, 7 days a week, 365 days a year.

Self-Help Online Tools and Resources

For quick and easy problem resolution, Juniper Networks has designed an online self-service portal called the Customer Support Center (CSC) that provides you with the following features:

- Find CSC offerings:
  http://www.juniper.net/customers/support/
- Search for known bugs:
  http://www2.juniper.net/kb/
- Find product documentation:
  http://www.juniper.net/techpubs/
- Find solutions and answer questions using our Knowledge Base:
  http://kb.juniper.net/
- Download the latest versions of software and review release notes:
  http://www.juniper.net/customers/csc/software/
- Search technical bulletins for relevant hardware and software notifications:
  https://www.juniper.net/alerts/
- Join and participate in the Juniper Networks Community Forum:
  http://www.juniper.net/company/communities/
- Open a case online in the CSC Case Manager:
  http://www.juniper.net/cm/

To verify service entitlement by product serial number, use our Serial Number Entitlement (SNE) Tool located at
https://tools.juniper.net/SerialNumberEntitlementSearch/

Opening a Case with JTAC

You can open a case with JTAC on the Web or by telephone.

- Use the Case Manager tool in the CSC at http://www.juniper.net/cm/
- Call 1-888-314-JTAC (1-888-314-5822 – toll free in the USA, Canada, and Mexico)

For international or direct-dial options in countries without toll-free numbers, visit http://www.juniper.net/support/requesting-support.html

List of Commands, A to M

aaa accounting acct-stop on-aaa-failure

Description Configures AAA to send an Acct-Stop message if a user fails AAA, but RADIUS grants access. The **no** version returns the parameter to the default of enable.

Syntax aaa accounting acct-stop on-aaa-failure { enable | disable }

no aaa accounting acct-stop on-aaa-failure

- enable—Specifies the feature; this is the default setting
- disable—Disables the feature

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa accounting acct-stop on-access-deny

Description Issues an Acct-Stop message if RADIUS denies access. The **no** version returns the parameter to the default of disable.

Syntax aaa accounting acct-stop on-access-deny { enable | disable }

no aaa accounting acct-stop on-access-deny

- enable—Specifies the feature
- disable—Disables the feature; this is the default setting

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa accounting broadcast

Description Broadcasts accounting records for a virtual router to accounting servers of the virtual routers in the specified virtual router group. The **no** version disables the feature.

Syntax aaa accounting broadcast *vrGroupName*

no aaa accounting broadcast

- *vrGroupName*—Name of the virtual router group; a string of up to 32 characters

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa accounting commands

Description Enables AAA accounting for TACACS+ to be captured for a specific user privilege level and creates accounting method lists. The **no** version deletes the accounting method list.

Syntax aaa accounting commands *level* { default | *listName* } stop-only tacacs+

no aaa accounting commands *level listName*

- *level*—Privilege level of user commands for which accounting information is captured; in the range 0–15
- default—Specifies that the default method list is used to specify how accounting is performed
- *listName*—Named method list used to specify how accounting is performed
- stop-only—Sends a stop accounting notice at the end of a process

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa accounting default

Description Specifies the accounting method used for a particular type of subscriber. The **no** version produces the same result as specifying the **radius** value.

Syntax aaa accounting { *subscriberType* } default *accountor* [*accountor*]*

no aaa accounting { *subscriberType* } default

- *subscriberType*—Type of subscriber:
  - atm1483—Specifies ATM 1483 subscribers; not supported
  - ip—Specifies IP subscriber management interfaces
  - ipsec—Specifies IPSec subscribers
  - ppp—Specifies PPP subscribers
  - radius-relay—Specifies RADIUS relay server subscribers
  - tunnel—Specifies tunnel subscribers
- *accountor*—Accounting method:
  - none—Disables accounting
  - radius—Enables RADIUS accounting
  - *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa accounting duplication

Description Sends duplicate accounting records to the accounting server of a different virtual router. The **no** version disables the feature.

Syntax aaa accounting duplication *routerName*

no aaa accounting duplication

- *routerName*—Virtual router name

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa accounting exec

Description Enables AAA accounting for TACACS+ to be captured for User Exec terminal sessions, and creates accounting method lists. The **no** version deletes the accounting method list.

Syntax aaa accounting exec { default | *listName* } start-stop tacacs+

no aaa accounting exec *listName*

- exec—Specifies that accounting information is captured for User Exec terminal sessions
- default—Specifies that the default method list is used to specify how accounting is performed
- *listName*—Named method list used to specify how accounting is performed
- start-stop—Sends a start accounting notice at the beginning of a process and a stop accounting notice at the end of a successful process

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa accounting immediate-update

Description Configures the router to send an Acct-Update message to the accounting server on receipt of a response (ACK or timeout) for the Acct-Start message. The **no** version restores the default condition, disabling immediate updates.

Syntax aaa accounting immediate-update { enable | disable }

no aaa accounting immediate-update

- enable—Specifies the feature
- disable—Disables the feature; this is the default setting

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa accounting interval

Description Specifies the default accounting interval used for all users and services. The **no** version sets the value to 0, which turns off interim accounting.

NOTE: This command is deprecated and might be removed completely in a future release. Use the **aaa service accounting interval** and **aaa user accounting interval** commands to configure default accounting intervals for services and users.

Syntax aaa accounting interval *period*

no aaa accounting interval

- *period*—Accounting interval in minutes in the range 10–1440, which sets the time period between accounting updates

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa accounting statistics

Description Configures the router to collect either a full set of statistics or only uptime status for the sessions AAA is managing. Collecting only the uptime status is a more efficient use of system resources. The **no** version restores the default setting in which the router collects full statistics.

Syntax aaa accounting statistics { volume-time | time }

no aaa accounting statistics

- volume-time—Collects a full complement of statistics from each connection; the default setting
- time—Collects only uptime status for each connection

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

aaa accounting suppress null-username

Description Specifies that accounting records are not generated for users whose username string is null; accounting records will be generated only for users with explicit usernames. The **no** version enables accounting records to be generated for all users, including those who do not have usernames.

Syntax [no] aaa accounting suppress null-username

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa accounting vr-group

Description Creates an accounting virtual router group and enters VR Group Configuration mode. A virtual router group can have up to four virtual routers, whose accounting servers can receive broadcast accounting records. A group must contain at least one virtual router. The **no** version deletes the accounting virtual router group.

Syntax [no] aaa accounting vr-group *vrGroupName*

- *vrGroupName*—Name of the virtual router group; a string of up to 32 characters

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa authentication default

Description Specifies the authentication method used for a particular type of subscriber. The **no** version produces the same result as specifying the **radius** value.

Syntax aaa authentication *subscriberType* default *authenticator* [*authenticator*]*

no aaa authentication *subscriberType* default

- *subscriberType*—Type of subscriber:
  - atm1483—Specifies ATM 1483 subscribers
  - ip—Specifies IP subscriber management interfaces
  - ipsec—Specifies IPSec subscribers
  - ppp—Specifies PPP subscribers
  - radius-relay—Specifies RADIUS relay server subscribers
  - tunnel—Specifies tunnel subscribers
- *authenticator*—Authentication method:
  - none—Disables authentication, allowing all users access
  - local—Enables local authentication; supported for PPP subscribers only
  - radius—Enables RADIUS for authentication
  - *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa authentication enable default

Description Allows privilege determination to be authenticated through the authenticator(s) you specify. This authentication is applied to vty users. The **no** version removes the authentication settings.

Syntax aaa authentication enable default *authenticator* [*authenticator*]*

no aaa authentication enable default

- *authenticator*—Authentication method:
  - enable—Use the enable password
  - line—Use the line password
  - none—Use no authentication
  - radius—Use RADIUS authentication
  - tacacs+—Use TACACS+ authentication
  - *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa authentication login

Description Creates an authentication list and the criteria for login. This authentication is applied to vty users. The **no** version disables AAA authentication.

Syntax aaa authentication login { default | *authListName* } *authenticator* [*authenticator*]*

no aaa authentication login *authListName*

- default—Specifies the use of the default login for authentication
- *authListName*—Existing authentication list name (created using the **login authentication** command); a string of 1–32 characters
- *authenticator*—Authentication method:
  - line—Use the line password for authentication
  - none—Use no authentication
  - radius—Use RADIUS authentication
  - tacacs+—Use TACACS+ authentication
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa authorization

Description Sets parameters that restrict a user's access to a network. The **no** version disables authorization for a function.

Syntax aaa authorization { exec | commands *level* } *authorListName authMethod* [*authMethod*]*

no aaa authorization { exec | commands *level* } *authorListName*

- exec—Runs authorization to determine if the user is allowed to run Exec mode commands
- *level*—Privilege level of commands for which authorization is run; in the range 0–15
- *authorListName*—Name of the authorization methods list of up to 32 characters
- *authMethod*—Authorization method:
  - if-authenticated—Allows the user to access the requested function if the user is authenticated
  - none—NAS does not request authorization information; authorization is not performed over this line
  - tacacs+—NAS exchanges authorization information with the TACACS+ security daemon
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa authorization config-commands

Description Reauthorizes the use of Global Configuration commands. This command is enabled by default when the **aaa authorization commands** command is executed. The **no** version disables AAA configuration command authorization.

NOTE: Using the **no** version can potentially reduce the amount of administrative control on configuration commands.

Syntax [no] aaa authorization config-commands

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa delimiter

Description Specifies delimiters for the domain and realm names. You can specify up to eight delimiters each for domain and realm names. The **no** version restores the default value.

Syntax aaa delimiter { domainName | realmName } *delimiters*

no aaa delimiter { domainName | realmName }

- domainName—Allows you to set delimiters for the domain name
- realmName—Allows you to set delimiters for the realm name
- *delimiters*—Either the domain or realm delimiter(s). You can specify up to eight characters.
  - The default domain name delimiter is **@**.
  - The default realm name delimiter is NULL (no character). In this case, realm parsing is disabled (having no delimiter disables realm parsing).

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa dns

Description Specifies the IP address of the primary DNS name server. The **no** version sets the corresponding address to 0.

Syntax aaa dns { primary | secondary } *ipAddress*

no aaa dns { primary | secondary }

- primary—Specifies the primary DNS name server
- secondary—Specifies the secondary DNS name server
- *ipAddress*—IP address of the name server

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa domain-map

Description Maps a user domain name to a virtual router. When you specify only the domain name, the command sets the mode to Domain Map Configuration. The **no** version deletes the map entry.

Syntax aaa domain-map *domainName*
[*routerName* [loopback *interfaceNumber* | *ipAddress ipMask*]]

no aaa domain-map *domainName*

- *domainName*—User domain name; specify the domain name *none* to assign users without domains to a specific virtual router.
- *routerName*—Router name associated with the domain name
- loopback—Specifies the loopback interface
- *interfaceNumber*—Interface number in the range 0–32000
- *ipAddress*—IP address of the local interface
- *ipMask*—IPv4 address mask of the local interface

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
ipAddress and *mask* variables added in JUNOSe Release 9.0.0.

aaa duplicate-address-check

Description Allows you to enable or disable routing table address lookup or duplicate address check. There is no **no** version.

NOTE: To use this command, you must have a B-RAS license. Run the **license b-ras** command and enter your password.

Syntax aaa duplicate-address-check { enable | disable }

- enable—Specifies the feature
- disable—Disables the feature

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa intf-desc-format include

Description Specifies whether the subinterface or adapter is included in or omitted from the interface description that the router passes to RADIUS for inclusion in the NAS-Port-Id attribute. Also affects the Interface field displayed by the **show subscribers** command. The **no** version restores the default, in which the subinterface and adapter are included.

Syntax aaa intf-desc-format include { sub-intf | adapter } { enable | disable }

no aaa intf-desc-format include { sub-intf | adapter }

- sub-intf—Specifies that the subinterface is included in or omitted from the interface description
- adapter—Specifies that the adapter is included in or omitted from the interface description
- enable—Includes the subinterface or adapter in the interface description; this is the default
- disable—Omits the subinterface or adapter from the interface description

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa ipv6-dns

Description Specifies the IPv6 address of the primary DNS name server. The **no** version sets the corresponding address to 0 (or ::).

Syntax aaa ipv6-dns { primary | secondary } *ipv6Address*

no aaa ipv6-dns { primary | secondary }

- primary—Specifies the primary DNS name server
- secondary—Specifies the secondary DNS name server
- *ipv6Address*—IPv6 address of the name server

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa local database

Description Creates a local user database for use by a local authentication server. The **no** version deletes the local user database and all entries in the database.

Syntax [no] aaa local database *databaseName*

- *databaseName*—Name of the user database; up to 32 characters; the name **default** is recognized as the default user database

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa local select database

Description Assigns the local user database that the virtual router uses for local authentication. The **no** version restores the default setting, which uses the default local user database for local authentication.

Syntax aaa local select database *databaseName*

no aaa local select

- *databaseName*—Name of the local user database

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa local username

Description Configures a user entry in the specified local user database and enters Local User Configuration mode. The **no** version deletes the user entry from the specified local user database.

Syntax [no] aaa local username *userName* database *databaseName*

- *userName*—User name of the subscriber
- *databaseName*—Name of the local user database; database name **default** configures the username in the default local user database

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa new-model

Description Specifies AAA authentication for Telnet sessions. The **no** version restores simple authentication (login and password).

Syntax [no] aaa new-model

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa parse-direction

Description Specifies the direction the router uses for domain and realm parsing. The router either searches from right-to-left, or from left-to-right. If searching for the realm, the router uses the realm delimiter valued in its search. If searching for the domain, it uses the domain delimiter values in its search. The **no** version returns the parse direction to the default setting.

Syntax aaa parse-direction { domainName | realmName } { left-to-right | right-to-left }

no aaa parse-direction { domainName | realmName }

- domainName—Specifies that the domain name is parsed. The router performs domain searches from right-to-left by default.
- realmName—Specifies that the realm name is parsed. The router performs realm searches from left-to-right by default.
- left-to-right—Causes the router to search from the left-most character. When the router reaches a realm delimiter, it uses anything to the left of the delimiter as the domain. When the router reaches a domain delimiter, it uses anything to the right of the delimiter as the domain.
- right-to-left—Causes the router to search from the right-most character. When the router reaches a realm delimiter, it uses anything to the left of the delimiter as the domain. When the router reaches a domain delimiter, it uses anything to the right of the delimiter as the domain.

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa parse-order

Description Specifies the order in which the router searches for a domain name. It either searches for realm and then domain, or it searches for domain and then realm. The **no** version returns the parse order to the default of searching for realm first.

Syntax aaa parse-order { domain-first | realm-first }

no aaa parse-order

- domain-first—Causes the router to search for a domain name first. When the router reaches a domain delimiter, it uses anything to the right of the delimiter as the domain name.
- realm-first—Causes the router to search for a realm name first. When the router reaches a realm delimiter, it uses anything to the left of the delimiter as the domain name.

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa profile

Description Creates a new AAA profile to allow mapping to AAA services. The **no** version removes the profile.

Syntax [no] aaa profile *profileName*

- *profileName*—Profile name of up to 32 characters

Mode AAA Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa qos downstream-rate

Description Enables the QoS downstream rate application to shape VLANs or ATM VCs based on downstream rates obtained from the Actual-Data-Rate-Downstream [26-130] DSL Forum VSA. The **no** version returns the parameter to the default of disabled.

Syntax [no] aaa qos downstream-rate

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

aaa route-download

Description Enables the RADIUS route-download server and configures parameters for the server. The **no** version disables the route-download server.

Syntax aaa route-download [*downloadInterval*] [retry-interval *retryInterval*] [cost *cost*] [tag *tagValue*] [base-user-name *name*] [password *password*] [synchronization *time*]

no aaa route-download

- *downloadInterval*—Interval between download operations, in the range 1–1440 minutes; default is 720 minutes
- *retryInterval*—Interval between retries after a failed download, in the range 1–60 minutes; default is 10 minutes
- *cost*—Default cost of a downloaded route, in the range 1–254; default is 2
- *tagValue*—Default tag of a downloaded route, in the range 1–4294967295; default is 0
- *name*—Name of router used for route-download requests; default is the router hostname
- *password*—Password used for route-download requests
- *time*—Time the download operation is restarted each day, in 24-hour format (hh:mm:ss)

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

aaa route-download now

Description Specifies that the RADIUS route-download server immediately perform the route download operation. If a download is currently in progress when you issue this command without the **force** keyword, the in-progress download continues until complete and no additional download is started. There is no **no** version.

Syntax aaa route-download now [force] [adjust-scheduler]

- force—Interrupts any in-progress route-download operation and immediately starts a new download.
- adjust-scheduler—Resets the download scheduler to use this download as the start time for synchronizing download counts

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 8.1.0.

aaa route-download suspend

Description Temporarily suspends the RADIUS route-download server operation. The **no** version stops the suspend specification and restores the route download operation.

Syntax [no] aaa route-download suspend

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 8.1.0.

aaa service accounting interval

Description Specifies the default accounting interval used for services on the virtual router—the Service Manager application uses this setting for RADIUS-initiated services when no value is specified in the Service-Interim-Acct-Interval VSA (Juniper VSA 26-140). The **no** version restores the default setting of 0, which turns off interim accounting for services associated with users attached to this virtual router.

NOTE: This command and the **aaa user accounting interval** command replace the deprecated **aaa accounting interval** command, which may be removed completely in a future release.

Syntax aaa service accounting interval *period*

no aaa service accounting interval

- *period*—Accounting interval in minutes in the range 10–1440, which sets the time period between accounting updates for services associated with users on this virtual router; 0 is the default

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 9.0.0.

aaa subscriber limit per-port

Description Sets the maximum number of active subscribers permitted on the specified port. The **no** version returns the limit to the default, 0 (zero).

Syntax aaa subscriber limit per-port *interfaceSpecifier limitValue*

no aaa subscriber limit per-port *interfaceSpecifier*

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *limitValue*—Maximum number of subscribers; default value is 0 (zero), which means there is no limit on the number of subscribers

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa subscriber limit per-vr

Description Sets the maximum number of active subscribers permitted on the virtual router. The **no** version returns the limit to the default, 0 (zero).

Syntax aaa subscriber limit per-vr *limitValue*

no aaa subscriber limit per-vr

- *limitValue*—Maximum number of subscribers; default value is 0 (zero), which means there is no limit on the number of subscribers

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa timeout

Description Sets the default idle or session timeout for B-RAS PPP users. The **no** version restores the idle or session timeout to its default value, 0 seconds.

Syntax aaa timeout { idle *idleTimeout* | session *sessionTimeout* }

no aaa timeout { idle | session }

- *idleTimeout*—In seconds, 300–7200
- *sessionTimeout*—Time in the range 60–31622400 seconds (that is, a minimum of 1 minute to a maximum of 366 days); the router terminates the user session once the maximum session timeout is reached, which means that the duration of a PPP or an L2TP user session cannot exceed 366 days

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa tunnel assignment-id-format

Description Sets the format for the tunnel assignment ID. The **no** version sets the tunnel assignment ID to the default, assignmentID.

Syntax aaa tunnel assignment-id-format { assignmentId | client-server-id }

no aaa tunnel assignment-id-format

- assignmentId—Configures the format to be assignmentId only
- client-server-id—Configures the format to be a combination of clientAuthId + serverAuthId + assignmentId

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa tunnel calling-number-format

Description Configures the format used by the E-series LAC to generate the L2TP Calling Number attribute value pair (AVP) 22 that it passes to the LNS. Available formats include a fixed format and several formats that include either or both of the agent-circuit-id (suboption 1) and agent-remote-id (suboption 2) suboptions of the PPPoE intermediate agent tags. The **no** version restores the default calling number format, descriptive.

Syntax

aaa tunnel calling-number-format
{ descriptive [include-agent-circuit-id] [include-agent-remote-id]
| fixed | include-agent-circuit-id [include-agent-remote-id] | include-agent-remote-id }

no aaa tunnel calling-number-format

- descriptive—Formats calling number AVP in descriptive format that includes only interface information
- descriptive include-agent-circuit-id—Formats calling number AVP in descriptive format to include interface information and the agent-circuit-id suboption
- descriptive include-agent-circuit-id include-agent-remote-id—Formats calling number AVP in descriptive format to include interface information and both the agent-circuit-id and agent-remote-id suboptions
- descriptive include-agent-remote-id—Formats calling number AVP in descriptive format to include interface information and the agent-remote-id
- fixed—Formats calling number AVP to a fixed format similar to the fixed format of RADIUS attribute 31 (Calling-Station-Id)
- include-agent-circuit-id—Formats calling number AVP to include only the agent-circuit-id suboption
- include-agent-circuit-id include-agent-remote-id—Formats calling number AVP to include both the agent-circuit-id and agent-remote-id suboptions
- include-agent-remote-id—Formats calling number AVP to include only the agent-remote-id suboption

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
include-agent-circuit-id and **include-agent-remote-id** keywords added in JUNOSe Release 8.1.0.

aaa tunnel calling-number-format-fallback

Description Configures the fallback format for the tunnel calling number to be passed in the L2TP Calling Number attribute value pair (AVP) 22 when the PPPoE agent circuit ID is null or unavailable. The fallback format is used only when the configured calling number format includes either or both of the agent-circuit-id and agent-remote-id suboptions. The **no** version restores the default format value, descriptive.

Syntax aaa tunnel calling-number-format-fallback { descriptive | fixed }

no aaa tunnel calling-number-format-fallback

- descriptive—Specifies that the fallback format for the number is descriptive
- fixed—Specifies that the fallback format for the number is RADIUS style

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

aaa tunnel client-name

Description Specifies the default tunnel client name. If the tunnel client name is not included in the tunnel attributes that are returned from the domain map or authentication server, the router uses the default name. The **no** version deletes the client name.

Syntax aaa tunnel client-name *name*

no aaa tunnel client-name

- *name*—Default tunnel client name; a string of up to 32 characters

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa tunnel-group

Description Specifies an AAA tunnel group and changes the mode to Tunnel Group Configuration mode. In Tunnel Group Configuration mode, you can add up to 31 tunnel definitions. The **no** version deletes the AAA group tunnel configuration from the router.

Syntax [no] aaa tunnel-group *groupName*

- *groupName*—String of up to 64 characters (no spaces)

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa tunnel ignore

Description Specifies whether to use the tunnel peer's NAS-Port [5] and NAS-Port-Type [61] attributes. The **no** version negates the command or restores the default of enable.

Syntax aaa tunnel ignore { nas-port | nas-port-type } { enable | disable }

no aaa tunnel ignore { nas-port | nas-port-type }

- nas-port—Configures the tunnel peer's supplied nas-port value
- nas-port-type—Configures the tunnel peer's supplied nas-port-type value
- enable—Implements the feature; this is the default setting
- disable—Disables the feature

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa tunnel nas-port-method

Description Configures the tunnel's default NAS port type to provide limited support for a Cisco proprietary vendor-specific method when configuring the LAC to LNS NAS port identification transfer mechanism. The **no** version disables the command.

NOTE: Use of this feature is not recommended and continued compatibility cannot be guaranteed.

Syntax aaa tunnel nas-port-method cisco-avp

no aaa tunnel nas-port-method

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa tunnel password

Description Specifies the default tunnel password. If the tunnel password is not included in the tunnel attributes that are returned from the domain map or authentication server, the router uses the default password. The **no** version deletes the password.

Syntax aaa tunnel password *name*

no aaa tunnel password

- *name*—Default tunnel password; a string of up to 32 characters

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa tunnel switch-profile

Description Applies a default L2TP tunnel switch profile to a virtual router. The default tunnel switch profile defines the L2TP tunnel switching behavior for the interfaces to which this profile is assigned. The router uses the default tunnel switch profile if the tunnel attributes returned from an AAA domain map or tunnel group or from a RADIUS authentication server do not include a named tunnel switch profile. The **no** version removes the default tunnel switch profile assignment from the virtual router.

Syntax aaa tunnel switch-profile *profileName*

no aaa tunnel switch-profile

- *profileName*—Name of the default tunnel switch profile; a string of up to 64 alphanumeric characters

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

aaa tunnel tx-connect-speed-method

Description Configures the method used to calculate the transmit connect speed of the subscriber's access interface for establishing a tunneled L2TP session associated with a virtual router. This speed is reported in L2TP Transmit (TX) Speed AVP 24. The router uses the calculation method specified with the **aaa tunnel tx-connect-speed-method** command if the tunnel attributes returned from an AAA domain map, an AAA tunnel group, or a RADIUS authentication server do not include the transmit connect speed calculation method. The **no** version removes configuration of the transmit connect speed calculation method from the tunneled L2TP sessions associated with the virtual router.

Syntax aaa tunnel tx-connect-speed-method { static-layer2 | dynamic-layer2 | qos | actual }

no aaa tunnel tx-connect-speed-method

- static-layer2—Calculates the transmit connect speed of the subscriber's access interface based on statically configured settings for the underlying layer 2 interface
- dynamic-layer2—Calculates the transmit connect speed of the subscriber's access interface based on dynamically configured settings for the underlying layer 2 interface
- qos—Calculates the transmit connect speed of the subscriber's access interface based on settings determined by QoS
- actual—Calculates the transmit connect speed of the subscriber's access interface as the lesser of the **dynamic-layer2** value or the **qos** value

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.0.0.

aaa user accounting interval

Description Specifies the default user accounting interval used on the virtual router. This router uses this value for users when no value is specified in the RADIUS Acct-Interim-Interval attribute (RADIUS attribute 85). The **no** version restores the default setting of 0, which turns off interim accounting for users attached to this virtual router.

NOTE: This command and the **aaa service accounting interval** command replace the deprecated **aaa accounting interval** command, which may be removed completely in a future release.

Syntax aaa user accounting interval *period*

no aaa user accounting interval

- *period*—Accounting interval in minutes in the range 10–1440, which sets the time period between accounting updates for users on this virtual router; 0 is the default

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 9.0.0.

aaa virtual-router

Description For AAA broadcast accounting, adds a virtual router to a virtual router group. The **no** version with the *indexInteger* parameter removes a specific virtual router from the virtual router group.

Syntax aaa virtual-router *indexInteger vrName*

no aaa virtual-router *indexInteger*

- *indexInteger*—Number in the range 1–4 that indicates the virtual router's listing in the virtual router group; the *indexInteger* is used in the **no** version of the command to delete a particular virtual router from the group
- *vrName*—Name of virtual router that can receive AAA broadcast accounting packets.

Mode VR Group Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aaa wins

Description Specifies the IP address of the WINS name server. The **no** version sets the corresponding address to 0.

Syntax aaa wins { primary | secondary } *ipAddress*

no aaa wins { primary | secondary }

- primary—Specifies the primary WINS name server
- secondary—Specifies the secondary WINS name server
- *ipAddress*—IP address of the name server

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

access-class in

Description Restricts incoming connections between a particular virtual terminal line and the addresses in an access list. The **no** version removes access restrictions.

Syntax access-class *listName* in

no access-class [*listName*] in

- *listName*—Name of the access list

Mode Line Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

access-list

Description Defines a standard or extended IP access list. The extended access list enables you to specify a destination address or host, precedence, and type of service. This command imposes an implicit last rule of "deny ip any any" to deny all routes that do not match previous rules in the access list. The **no** version removes the IP access list, the specified entry in an access list, or the log for a specified entry.

Syntax Standard IP access list:

access-list *accessListName* { permit | deny }
{ *srcIP srcWildIp* | [host] *srcIPHost* | any } [log]

no access-list *accessListName* [{ permit | deny }
{ *srcIP srcWildIp* | [host] *srcIPHost* | any } [log]]

Extended IP access list:

access-list *accessListName* { permit | deny } ip { *srcIP srcWildIp* |
host *srcIPHost* | any } { *dstIP dstWildIp* | host *dstIPHost* | any } [log]

no access-list *accessListName* [{ permit | deny } ip { *srcIP srcWildIp* |
host *srcIPHost* | any } { *dstIP dstWildIp* | host *dstIPHost* | any } [log]]

- *accessListName*—String of up to 32 alphanumeric characters
- permit—Permits access if the conditions are matched
- deny—Denies access if the conditions are matched
- *srcIP*—Source IP address from which the packet is being sent
- *srcWildIp*—Wildcard mask IP address
- host—Identifies the address as a host
- *srcIPHost*—Source host IP address; assumes a wildcard mask of 0
- any—Creates an address of 0.0.0.0 with a wildcard mask of 255.255.255.255
- *dstIP*—Destination IP address
- *dstWildIp*—Wildcard mask IP address for destination
- *dstIPHost*—Destination host IP address to which the packet is being sent
- log—Logs an Info event into the ipAccessList log whenever the access-list rule is matched

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

accounting

Description Enables AAA accounting services on a console line, a virtual terminal line, or a group of lines and applies the specified accounting method list. The **no** version restores the default method list.

NOTE: To disable accounting for a console line or virtual terminal line, specify a nonexisting accounting method list name (for example, noAccounting).

Syntax accounting { exec | commands *level* } *listName*

no accounting { exec | commands *level* }

- exec—Specifies that accounting information is captured for User Exec terminal sessions on the line
- *level*—Privilege level of User Exec mode commands for which accounting information is captured; in the range 0–15
- *listName*—Named method list used to specify how accounting is performed

Mode Line Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

adapter accept

Description Erases from NVS the type and configuration of the previous I/O adapter (IOA) in the specified IOA bay, and allows you to configure a new IOA. Issue this command after you have installed a different type of IOA in an IOA bay. You can use this command only when the state of the IOA is not present or disabled (mismatch). There is no **no** version.

NOTE: Issuing this command reboots the line module associated with the IOA, but it does not accept its configuration.

To accept the configuration of the line module and its associated IOAs, issue the **slot accept** command.

Syntax adapter accept *adapterSpecifier*

- *adapterSpecifier*—Particular IOA in the format *slot/adapter*:
  - *slot*—Number of the chassis slot in the range 0–5 or 11–16
  - *adapter*—Identifier for the IOA within the chassis slot, either 0 or 1, where:
    - 0 indicates that the IOA is installed in the right IOA bay (E120 router) or the upper IOA bay (E320 router).
    - 1 indicates that the IOA is installed in the left IOA bay (E120 router) or the lower IOA bay (E320 router).

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

adapter disable

Description Disables the IOA installed in the specified IOA bay. There is no **no** version.

NOTE: For IOAs that support hot-swapping, issuing this command does not reboot the line module. For IOAs that do not support hot-swapping, issuing this command reboots the line module associated with the IOA, but it does not disable it.

To disable the line module and its associated IOAs, issue the **slot disable** command.

Syntax adapter disable *adapterSpecifier*

- *adapterSpecifier*—Particular IOA in the format *slot/adapter*:
  - *slot*—Number of the chassis slot in the range 0–5 or 11–16
  - *adapter*—Identifier for the IOA within the chassis slot, either 0 or 1, where:
    - 0 indicates that the IOA is installed in the right IOA bay (E120 router) or the upper IOA bay (E320 router).
    - 1 indicates that the IOA is installed in the left IOA bay (E120 router) or the lower IOA bay (E320 router).

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

adapter enable

Description Enables the IOA installed in the specified IOA bay. There is no **no** version.

NOTE: For IOAs that support hot-swapping, issuing this command does not reboot the line module. For IOAs that do not support hot-swapping, issuing this command reboots the line module associated with the IOA, but it does not enable it.

To enable the line module and its associated IOAs, issue the **slot enable** command.

Syntax adapter enable *adapterSpecifier*

- *adapterSpecifier*—Particular IOA in the format *slot/adapter*:
  - *slot*—Number of the chassis slot in the range 0–5 or 11–16
  - *adapter*—Identifier for the IOA within the chassis slot, either 0 or 1, where:
    - 0 indicates that the IOA is installed in the right IOA bay (E120 router) or the upper IOA bay (E320 router).
    - 1 indicates that the IOA is installed in the left IOA bay (E120 router) or the lower IOA bay (E320 router).

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

adapter erase

Description Erases from NVS the type and configuration of the previous IOA in the specified IOA bay, and allows you to configure a new IOA. Issue this command before you install a different type of IOA in an IOA bay. There is no **no** version.

NOTE: Issuing this command reboots the line module associated with the IOA, but it does not erase its configuration.

To erase the configuration of the line module and its associated IOAs, issue the **slot erase** command.

Syntax adapter erase *adapterSpecifier*

- *adapterSpecifier*—Particular IOA in the format *slot/adapter*:
  - *slot*—Number of the chassis slot in the range 0–5 or 11–16
  - *adapter*—Identifier for the IOA within the chassis slot, either 0 or 1, where:
    - 0 indicates that the IOA is installed in the right IOA bay (E120 router) or the upper IOA bay (E320 router).
    - 1 indicates that the IOA is installed in the left IOA bay (E120 router) or the lower IOA bay (E320 router).

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

address

Description

From Domain Map Tunnel Configuration mode, sets the tunnel endpoint address of an L2TP tunnel. The **no** version removes the address of the tunnel.

From Tunnel Group Tunnel Configuration mode, sets the tunnel endpoint address of an L2TP tunnel. The **no** version removes the address of the tunnel.

From Interface Configuration or Subinterface Configuration mode, configures RIP to run on the interface specified by the IP address or on an unnumbered interface. Uses the default values: send version is RIP version 1, receive version is RIP version 1 and version 2, authentication is not enabled. The **no** version deletes the RIP interface. Use the **address** commands to configure RIP attributes on the network.

From IP NAT Pool Configuration mode, configures NAT IP address pool ranges. The **no** version removes the range from the current NAT address pool.

Syntax

To set the tunnel endpoint address:

address *serverAddress*

no address

To configure RIP:

[no] address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* }

- *serverAddress*—IP address of the LNS endpoint
- *ipAddress*—Address of IP interface where RIP will be run
- unnumbered—Specifies that RIP will be run on an unnumbered interface
  - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

To configure NAT address pool ranges:

[no] address *startIpAddress endIpAddress*

- *startIpAddress*—Starting IP address (inclusive) of the NAT pool range you are creating
- *endIpAddress*—Ending IP address (inclusive) of the NAT pool range you are creating

Mode

Address Family Configuration (RIP), Domain Map Tunnel Configuration, IP NAT Pool Configuration, Router Configuration (RIP), Tunnel Group Tunnel Configuration

Release Information

Command introduced before JUNOSe Release 7.1.0.

address area

Description Creates an interface on which OSPF runs in the specified area, on top of the IP interface at the specified IP address. Uses the default values. The **no** version deletes OSPF interfaces. If the OSPF network was previously specified with the **network area** command, the OSPF interface already exists, and you do not need to use this command, unless you want to change the area of the OSPF interface to an area different from the one specified by the **network area** command.

NOTE: Before you issue this command, you must first configure an interface with the IP address specified by ipAddress or an interface configured as unnumbered.

NOTE: You must issue this command before issuing any other OSPF **address** command.

Syntax [no] address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* } area { *areaId* | *areaIdInt* }

- *ipAddress*—IP address of the interface on which OSPF will be run
- unnumbered—Configures OSPF on an unnumbered interface
  - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value in the range 1–4294967295

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

address authentication key

Description Specifies the password for text authentication and the key for MD5 authentication. The **no** version clears the key for the interface. Supported only in RIP version 2. Authentication is disabled by default.

Syntax address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* }
authentication key [0 | 8] *authkey*

no address [*ipAddress* | unnumbered *interfaceType interfaceSpecifier*]
authentication key

- *ipAddress*—Address of IP interface where RIP will be run
- unnumbered—Specifies that RIP will be run on an unnumbered interface
  - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- 0—Indicates the *authKey* is entered in unencrypted form (plaintext); this is the default option
- 8—Indicates the *authKey* is entered in encrypted form (ciphertext)
- *authkey*—Password sent with RIP messages or the key used to encrypt/decrypt RIP messages, depending on the authentication mode set for this interface

Mode Address Family Configuration, Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

address authentication-key

Description Assigns a password used by neighboring routers that are using OSPF simple password authentication. The **no** version deletes the password.

NOTE: You must issue the **address area** command before issuing this command.

Syntax [no] address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* } authentication-key [0 | 8] *authKey*

- *ipAddress*—OSPF interface address previously specified with the **address** command
- unnumbered—Indicates that OSPF is running on an unnumbered interface previously specified with the **address** command
  - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- 0—Indicates the *authKey* is entered in unencrypted form (plaintext); this is the default option
- 8—Indicates the *authKey* is entered in encrypted form (ciphertext)
- *authKey*—Password, string of up to 8 characters

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

address authentication message-digest

Description Specifies that MD5 authentication is used for the OSPF interface. The **no** version sets authentication for the interface to none, but leaves any configured MD5 key intact.

NOTE: You must issue the **address area** command before issuing this command.

Syntax [no] address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* } authentication message-digest

- *ipAddress*—OSPF interface address previously specified with the **address** command
- unnumbered—Indicates that OSPF is running on an unnumbered interface previously specified with the **address** command
  - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

address authentication mode

Description Specifies the type of authentication used on this interface. The **no** version removes authentication from the interface. Supported only in RIP version 2. Authentication is disabled by default.

Syntax address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* }
authentication mode { text | md5 *keyID* }

no address [*ipAddress* | unnumbered *interfaceType interfaceSpecifier*]
authentication mode

- *ipAddress*—Address of IP interface where RIP will be run
- unnumbered—Specifies RIP will be run on an unnumbered interface
  - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- text—Simple text password is sent with each RIP message. If the password is not possessed by neighbors, the message is rejected.
- md5—MD5 message-digest algorithms are used to encrypt and compress the RIP message.
- *keyID*—Number identifying the MD5 key. Neighbors must share the MD5 key to decrypt the message and encrypt the response.

Mode Address Family Configuration, Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

address authentication-none

Description Specifies that no authentication is to be used for the OSPF interface. The **no** version has no effect.

NOTE: You must issue the **address area** command before issuing this command.

Syntax [no] address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* } authentication-none

- *ipAddress*—OSPF interface address previously specified with the **address** command
- unnumbered—Indicates that OSPF is running on an unnumbered interface previously specified with the **address** command
  - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

address bfd-liveness-detection

Description Enables BFD (bidirectional forwarding detection) on an interface running RIP and defines BFD values to be negotiated between peers for detection of IP data path failures. The **no** version disables BFD on the RIP interface.

Syntax

address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* }
bfd-liveness-detection [minimum-interval *minInterval* |
[minimum-receive-interval *minRecInterval*]
[minimum-transmit-interval *minTransInterval*]] [multiplier *multValue*]

no address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* }
bfd-liveness-detection

- *ipAddress*—Address of IP interface where RIP will be run
- unnumbered—Specifies that RIP will be run on an unnumbered interface
  - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *minInterval*—Minimum proposed transmit interval and required receive interval for BFD control packets; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minRecInterval*—Minimum interval at which the local peer must receive BFD control packets sent by the remote peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minTransInterval*—Minimum proposed interval between BFD control packets sent by the local peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *multValue*—Detection multiplier value that the remote peer router multiplies by the local peer's negotiated transmit interval to determine the remote peer's BFD liveness detection interval; equal to the number of BFD packets that can be missed before the BFD session is declared down; number in the range 1–255; default value is 3

Mode Address Family Configuration, Router Configuration

Release Information Command introduced in JUNOSe Release 8.0.0.

address cost

Description Specifies a cost metric for an OSPF interface. Used in the calculation of the SPF routing table. The **no** version resets the path cost to the default.

NOTE: You must issue the **address area** command before issuing this command.

Syntax [no] address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* } cost *intfCost*

- *ipAddress*—OSPF interface address previously specified with the **address** command
- unnumbered—Indicates that OSPF is running on an unnumbered interface previously specified with the **address** command
  - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *intfCost*—Link-state metric cost; a number in the range 0–65535; default value is 10

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

address dead-interval

Description Sets the time period that the router's neighbors should wait without seeing hello packets from the router before they declare the router to be down. The **no** version resets the dead interval to its default.

NOTE: You must issue the **address area** command before issuing this command.

Syntax [no] address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* } dead-interval *deadInterval*

- *ipAddress*—OSPF interface address previously specified with the **address** command
- unnumbered—Indicates that OSPF is running on an unnumbered interface previously specified with the **address** command
  - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *deadInterval*—Number in the range 0–2147483647 seconds; default value is 40 seconds

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

address-family

Description For BGP, configures the router to exchange addresses for the specified address family. This command takes effect immediately.

- For the IPv4 address family, configures the router or a specific VRF to exchange IPv4 addresses in unicast, multicast, or VPN mode.
- For the IPv6 address family, configures the router or a specific VRF to exchange IPv6 addresses in unicast, multicast, or VPN mode.
- For the L2VPN address family, configures a router to exchange layer 2 NLRI for all VPLS instances and all L2VPN (VPWS) instances.
- For the VPLS address family, configures the router to exchange layer 2 NLRI for the VPLS address family for a specified VPLS instance.
- For the VPWS address family, configures the router to exchange layer 2 NLRI for the VPWS address family for a specified L2VPN (VPWS) instance.
- For the route-target address family, configures the router to exchange route-target membership NLRI (RT-MEM-NLRI) that includes information about membership in VPN route-target extended communities.

For IS-IS, configures IS-IS to exchange IPv6 addresses.

For RIP, configures RIP in a specific VRF to exchange IPv4 addresses.

For all routing protocols, the **no** version removes the address family.

Syntax For BGP:

[no] address-family { { ipv4 | ipv6 } [unicast | multicast | [unicast] vrf *vrfName*] | { vpnv4 | vpnv6 } [unicast] | l2vpn [signaling] | route-target [signaling] | vpls *vplsName* | vpws *vpwsName* }

For IS-IS:

[no] address-family ipv6 [unicast | multicast | unicast multicast]

For RIP:

[no] address-family ipv4 [unicast] vrf *vrfName*

- ipv4—Specifies sessions that carry standard IPv4 address prefixes (default)
- ipv6—Specifies sessions that carry IPv6 address prefixes
- multicast—Specifies multicast prefixes
- unicast—Specifies unicast prefixes (default)
- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- vpnv4—Specifies sessions that carry customer VPN-IPv4 prefixes, each of which has been made globally unique by adding an 8-byte route distinguisher

- vpnv6—Specifies sessions that carry customer VPN-IPv6 prefixes, each of which has been made globally unique by adding an 8-byte route distinguisher
- l2vpn—Specifies sessions that carry L2VPN reachability information
- l2vpn signaling—Specifies BGP signaling of L2VPN reachability information; currently, this can be omitted with no adverse effects
- route-target—Specifies sessions that carry route-target membership information
- route-target signaling—Specifies BGP signaling of route-target membership information; currently, this can be omitted with no adverse effects
- *vplsName*—Name of a VPLS instance for which you are specifying the L2VPN address family; must be issued for each separate VPLS instance
- *vpwsName*—Name of a layer 2 VPN (VPWS) instance for which you are specifying the L2VPN address family; must be issued for each separate L2VPN instance

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
l2vpn and **signaling** keywords added in JUNOSe Release 7.1.0.
vpls keyword and *vplsName* variable added in JUNOSe Release 7.1.0.
vpws keyword and *vpwsName* variable added in JUNOSe Release 8.1.0.
route-target signaling keywords and IS-IS IPv6 version added in JUNOSe Release 8.2.0.

Related Topics

- Configuring BGP Signaling

address hello-interval

Description Specifies the interval between hello packets that the router sends on the interface. The **no** version resets the hello interval to its default.

NOTE: You must issue the **address area** command before issuing this command.

Syntax [no] address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* } hello-interval *helloInterval*

- *ipAddress*—OSPF interface address previously specified with the **address** command
- unnumbered—Indicates that OSPF is running on an unnumbered interface previously specified with the **address** command
  - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *helloInterval*—Number in the range 1–65535 seconds; default value is 10 seconds

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

address message-digest-key md5

Description Enables OSPF MD5 authentication and configures the MD5 key. The **no** version deletes an MD5 key.

NOTE: If all the MD5 keys have been deleted, the authentication type is still MD5, but you need to configure MD5 keys.

NOTE: To disable MD5 authentication for the interface, use the **address authentication-none** command.

NOTE: You must issue the **address area** command before issuing this command.

Syntax address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* } message-digest-key *keyID* md5 [0 | 8] *msgDigestKey*

no address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* } message-digest-key *keyID*

- *ipAddress*—OSPF interface address previously specified with the **address** command
- unnumbered—Indicates that OSPF is running on an unnumbered interface previously specified with the **address** command
  - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *keyID*—Key identifier in the range 1–255
- md5—Specifies use of the MD5 algorithm
- 0—Indicates the *msgDigestKey* is entered in unencrypted form (plaintext); this is the default option
- 8—Indicates the *msgDigestKey* is entered in encrypted form (ciphertext)
- *msgDigestKey*—OSPF password; string of up to 16 alphanumeric characters

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

address network

Description Configures the OSPF network type for the specified interface to something other than the default for the network medium. The **no** version restores the default value for the medium.

NOTE: You must issue the **address area** command before issuing this command.

Syntax address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* }
network { broadcast | non-broadcast | point-to-point }

no address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* } network

- *ipAddress*—OSPF interface address previously specified with the **address** command
- unnumbered—Indicates that OSPF is running on an unnumbered interface previously specified with the **address** command
  - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- broadcast—Sets network type to broadcast
- non-broadcast—Sets network type to NBMA
- point-to-point—Sets network type to point-to-point

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

address passive-interface

Description Disables the transmission of routing updates on an interface. OSPF routing information is neither sent nor received through the specified router interface. The specified interface address appears as a stub network in the OSPF domain. The **no** version reenables the transmission of routing updates.

NOTE: You must issue the **address area** command before issuing this command.

Syntax [no] address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* } passive-interface

- *ipAddress*—OSPF interface address previously specified with the **address** command
- unnumbered—Indicates that OSPF is running on an unnumbered interface previously specified with the **address** command
  - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

address-pool-name

Description Specifies an address pool name to associate with the domain name being configured. The **no** version removes the pool name.

Syntax address-pool-name *poolName*

no address-pool-name

- *poolName*—Name of the pool to associate with the domain name

Mode Domain Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

address priority

Description Sets the router priority. Used in determining the designated router for the particular network. This designation only applies to multi-access networks. Every broadcast and nonbroadcast multiaccess network has a designated router. The **no** version restores the default value.

NOTE: You must issue the **address area** command before issuing this command.

Syntax [no] address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* } priority *intfPriority*

- *ipAddress*—OSPF interface address previously specified with the **address** command
- unnumbered—Indicates that OSPF is running on an unnumbered interface previously specified with the **address** command
  - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *intfPriority*—Priority value, an 8-bit number in the range 1–255; default value is 1

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

address receive version

Description Restricts the RIP version that the router can receive on an interface. The **no** version sets the interface back to the default value, receiving both RIP version 1 and version 2.

Syntax address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* }
receive version { 1 | 2 | 1 2 | 2 1 | off }

no address [*ipAddress* | unnumbered *interfaceType interfaceSpecifier*] receive version

- *ipAddress*—Address of IP interface where RIP will be run
- unnumbered—Specifies that RIP will be run on an unnumbered interface
  - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- 1—Specifies RIP version 1 only
- 2—Specifies RIP version 2 only
- 1 2—Specifies RIP version 1 and version 2; the default value
- 2 1—Specifies RIP version 2 and version 1
- off—Turns reception off

Mode Address Family Configuration, Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

address retransmit-interval

Description Specifies the time between LSA retransmissions for the interface when an acknowledgment for the LSA is not received. The **no** version restores the default value.

NOTE: You must issue the **address area** command before issuing this command.

Syntax [no] address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* } retransmit-interval *retransInterval*

- *ipAddress*—OSPF interface address previously specified with the **address** command
- unnumbered—Indicates that OSPF is running on an unnumbered interface previously specified with the **address** command
  - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *retransInterval*—Number in the range 0–3600 seconds; default value is 5 seconds

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

address send version

Description Restricts the RIP version that the router can send on an interface. The **no** version sets the interface back to the default value, sending only RIP version 1.

Syntax address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* }
send version { 1 | 2 | 1 2 | 2 1 | off }

no address [*ipAddress* | unnumbered *interfaceType interfaceSpecifier*] send version

- *ipAddress*—Address of IP interface where RIP will be run
- unnumbered—Specifies that RIP will be run on an unnumbered interface
  - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- 1—Specifies RIP version 1 only
- 2—Specifies RIP version 2 only
- 1 2—Specifies RIP version 1 and version 2
- 2 1—Specifies RIP version 2 and version 1
- off—Turns reception off

Mode Address Family Configuration, Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

address transmit-delay

Description Sets the estimated time it takes to transmit a link-state update packet on the interface. The **no** version restores the default value.

NOTE: You must issue the **address area** command before issuing this command.

Syntax [no] address { *ipAddress* | unnumbered *interfaceType interfaceSpecifier* } transmit-delay *transmDelay*

- *ipAddress*—OSPF interface address previously specified with the **address** command
- unnumbered—Indicates that OSPF is running on an unnumbered interface previously specified with the **address** command
  - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *transmDelay*—Link-state transmit delay, a number in the range 0–3600 seconds; default value is 1 second

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

agent context-name

Description Specifies the virtual router SNMP agent on which you want to poll MIB objects. The **no** version returns the context name to the default context (virtual router).

Syntax agent context-name *contextName* [wildcard] [limit *contextNameLimit*]

no agent

- *contextName*—Context name of the agent

NOTE: The *contextName* value is the virtual router number in the order the virtual router was created (for example, router1, router2, and so on). Use the **show snmp agent** command to obtain the context name for the virtual router.

- wildcard—Specifies that the context name is a wildcard value
- *contextNameLimit*—Maximum number of agents to be polled

Mode SNMP Trigger Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aggregate-address

Description Creates an aggregate entry in a BGP routing table. The **no** version removes the aggregate.

Syntax [no] aggregate-address { *address mask* | *ipv6Prefix* }
[as-set | summary-only | attribute-map *attributeMapTag* |
advertise-map *advertiseMapTag* | suppress-map *suppressMapName*]*

- *address*—Aggregate IPv4 address
- *mask*—Aggregate IPv4 mask
- *ipv6Prefix*—Aggregate IPv6 prefix
- as-set—If the **as-set** option is not specified, the path attributes of the aggregate route are set in the same way as locally originated routes, except that the atomic_aggregate and aggregator attributes are added. If the **as-set** option *is* used, the path attributes of the aggregate route are determined by combining the path attributes of the aggregated routes as described in RFC 1771. If the **as-set** option is used, the path attributes of the aggregate route may change whenever one of the aggregated routes changes, causing the aggregate route to be readvertised.
- summary-only—Filters all more specific routes from updates. **summary-only** not only creates the aggregate route but also suppresses advertisements of more-specific routes to all neighbors. If you only want to suppress advertisements to certain neighbors, you may use the **neighbor distribute-list** command, with caution. If a more-specific route leaks out, all BGP speakers will prefer that route over the less-specific aggregate you are generating (using longest-match routing). Alternatively, you can use the **suppress-map** keyword to suppress specific routes.
- *attributeMapTag*—String of up to 32 characters that identifies the route map used to set the attributes of the aggregate route
- *advertiseMapTag*—String of up to 32 characters that identifies the route map used to set the routes to create AS-SET origin communities in the range
- *suppressMapName*—String of up to 32 characters that identifies a route map that filters routes to be suppressed
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Address Family Configuration, Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aggregation-node

Description Configures the aggregation node value. The **no** version restores the default value, where the forwarding interface becomes the aggregation node.

Syntax aggregation-node { *nodeValue* | atm | atm-vc | atm-vp *vpValue* | ethernet | fr-vc | forwarding | svlan *svlanValue* | vlan }
no aggregation-node

- *nodeValue*— Aggregation node number in the range 1–65535
- *vpValue*—ATM VPI number in the range 0–255
- *svlanValue*—SVLAN ID number in the range 0–4095

Mode Policy Parameter Configuration

Release Information Command introduced in JUNOSe Release 8.0.0.

Related Topics

- Creating a Classifier Group for a Policy List

aggressive-mode

Description Enables aggressive mode negotiation for the tunnel. The **no** version restores the default, no aggressive mode.

Syntax aggressive-mode { accepted | requested | required }

no aggressive-mode

- accepted—Accepts aggressive mode when proposed by peers
- requested—Requests aggressive mode when negotiating with peers
- required—Only requests and accepts aggressive mode when negotiating with peers

Mode IKE Policy Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
accepted, **requested**, and **required** keywords added in JUNOSe Release 7.3.0.

allow

Description Specifies the domain names that are to be allowed access to AAA authentication. The **no** version negates the command.

Syntax [no] allow *domainName*

- *domainName*—Name of the domain; maximum of 64 characters

Mode AAA Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

append-after

Description Adds a next hop after a particular index in the MPLS explicit path. The sequence numbers for existing hops after the index adjust automatically. There is no **no** version.

Syntax append-after *indexNumber* next-address *ipAddress* [[mask] *ipMask*] [loose]

- *indexNumber*—Number of a node in an ordered set of abstract nodes
- *ipAddress*—Address of the next hop
- *ipMask*—[not currently used] mask for the next adjacent address
- loose—Indicates the node is not necessarily directly connected (adjacent) to the previous node in the path. If loose is not configured, the configuration defaults to strict. Strict indicates that the node is directly connected to the previous node.

Mode Explicit Path Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

application

Description Specifies the type of application that is secured by connections created with this IPSec transport profile. You can specify multiple application types. The **no** version restores the default application, L2TP.

Syntax application *applicationType1* [*applicationType2* [*applicationType3*]]

no application

- *applicationType*—One of the following application types:
  - dvmrp—Secures DVMRP traffic.
  - gre—Secures GRE traffic.
  - l2tp—Secures L2TP traffic; this is the default application
  - l2tp-nat-passthrough—Secures L2TP traffic and also allows clients to connect from behind NAT devices that support IPSec passthrough

Mode IPSec Transport Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aps events

Description Enables line modules to deliver APS events to the necessary SNMP traps. You can configure notification for specific events. The **no** version disables the delivery of APS events from line modules to SNMP traps.

Syntax aps events *list* [*list*]*

no aps events

- *list*—One of the following APS events:
  - all—Configures notification of all APS events
  - channel-mismatch—Configures notification of APS channel mismatches
  - feplf—Configures notification of APS far-end protection line failures
  - mode-mismatch—Configures notification of APS mode mismatches
  - psbf—Configures notification of APS protection signal byte failures
  - switchover—Configures notification of APS switchovers
  - *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

aps force

Description Forces the specified interface to be replaced by the inactive interface in an APS/MSP group. The **no** version allows the specified interface to resume operation.

Syntax aps force *channelNumber*

no aps force

- *channelNumber*—One of the following channel numbers:
  - 0—Switches from the protect interface back to the working interface
  - 1—Switches from the working interface to the protect interface

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aps group

Description Assigns an interface to an APS/MSP group. The **no** version removes a group of APS/MSP interfaces.

Syntax aps group *groupName*

no aps group

- *groupName*—Name of the APS/MSP group to which the active and standby interfaces belong; string of up to 32 characters

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aps lockout

Description Prevents the working interface from switching to the protect interface. The **no** version restores the default situation, in which the working interface can switch to the protect interface.

Syntax aps lockout [0]

no aps lockout

- 0—Specifies the channel number that identifies the protect interface; because the protect interface is always assigned channel number 0, this is the only valid option

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aps manual

Description Forces the working interface to switch to the protect interface, unless a request of equal or higher priority exists. The **no** version allows the specified working interface to resume the active role.

Syntax aps manual *channelNumber*

no aps manual

- *channelNumber*—One of the following channel numbers:
  - 0—Switches from the protect interface back to the working interface
  - 1—Switches from the working interface to the protect interface

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aps protect

Description Configures an interface as a protect interface. The **no** version removes the relationship between the protect interface and the active interface.

Syntax aps protect [0]

no aps protect

- 0—Specifies the channel number that identifies the protect interface; because the protect interface is always assigned channel number 0, this is the only valid option

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aps revert

Description Configures the APS/MSP group to operate in revertive mode. The **no** version restores the default setting, nonrevertive mode.

Syntax aps revert *minutes*

no aps revert

- *minutes*—Number of minutes in the range 5–12 at which the interface resumes the active role after that interface becomes available

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aps unidirectional

Description Configures the APS/MSP group to operate in unidirectional mode, the default setting. The **no** version configures the APS/MSP group to operate in bidirectional mode.

Syntax [no] aps unidirectional

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

aps working

Description Configures an interface as a working interface. The **no** version removes the configuration.

Syntax aps working [1]

no aps working

- 1—Channel number that identifies the working interface; because the working interface is always assigned channel number 1, this is the only valid option

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

area

Description This command has only a **no** version. See the **no area** command for a complete description and syntax.

area-authentication

Description Enables or disables (suppresses) simple text authentication or HMAC MD5 authentication of IS-IS level 1 CSNP packets or PSNP packets. The **no** version restores the default behavior, in which authentication of IS-IS level 1 CSNPs and PSNPs is disabled.

Syntax [no] area-authentication { csnp | psnp }

- csnp—Enables authentication of IS-IS level 1 complete sequence number PDUs (CSNPs)
- psnp—Enables authentication of IS-IS level 1 partial sequence number PDUs (PSNPs)

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

area-authentication-key

Description Assigns a password used by neighboring routers for authentication of IS-IS level 1 LSPs, CSNPs, and PSNPs. The **no** version deletes the password.

NOTE: Issuing this command enables simple authentication of level 1 LSPs only. To enable authentication of level 1 CSNPs or PSNPs, use the **area-authentication** command.

Syntax area-authentication-key [0 | 8] *authKey*

no area-authentication-key

- 0—Indicates the *authKey* is entered in unencrypted form (plaintext); this is the default option
- 8—Indicates the *authKey* is entered in encrypted form (ciphertext)
- *authKey*—Password, string of up to 8 characters

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

area default-cost

Description Specifies a cost for the default summary route sent into a stub area. A stub area is an OSPF area that carries a default route, intra-area routes, and interarea routes, but does not carry external routes. You cannot configure virtual links across a stub area. Stub areas cannot contain an AS boundary router. The **no** version removes the configured default route cost.

Syntax area { *areaId* | *areaIdInt* } default-cost *defaultCost*

no area { *areaId* | *areaIdInt* } default-cost

- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value 0–4294967295
- *defaultCost*—Stub area's advertised external route cost (cost metric); an integer in the range 0–16777215

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

area-message-digest-key

Description Specifies an HMAC MD5 key that the router uses to create a secure, encrypted message digest of each IS-IS level 1 packet (LSPs, CSNPs, and PSNPs). The digest is inserted into the packet from which it is created. Using this algorithm for area routers protects against unauthorized routers injecting false routing information into your network.

You can specify when the router will start (default is the current time) and stop (default is never) accepting packets that include a digest made with this key. You can specify when the router will start (default is the current time plus 2 minutes) and stop (default is never) generating packets that include a digest made with this key. The **no** version deletes the key specified by the *keyId*.

NOTE: Issuing this command enables MD5 authentication of level 1 LSPs only. To enable authentication of level 1 CSNPs or PSNPs, use the **area-authentication** command.

Syntax area-message-digest-key *keyId* hmac-md5 [0 | 8] *key*
[start-accept *startAcceptTime* [{ *startAcceptMonth startAcceptDay* | *startAcceptDay startAcceptMonth* } *startAcceptYear*]]
[start-generate *startGenTime* [{ *startGenMonth startGenDay* | *startGenDay startGenMonth* } *startGenYear*]]
[stop-accept { never | *stopAcceptTime* [{ *stopAcceptMonth stopAcceptDay* | *stopAcceptDay stopAcceptMonth* } *stopAcceptYear*] }]
[stop-generate { never | *stopGenTime* [{ *stopGenMonth stopGenDay* | *stopGenDay stopGenMonth* } *stopGenYear*] }]

no area-message-digest-key *keyId*

- *keyId*—Integer from 1 to 255 that is a unique identifier for the secret key, sent with the message digest in the packet.
- 0—Indicates the *key* is entered in unencrypted form (plaintext); default option
- 8—Indicates the *key* is entered in encrypted form (ciphertext)
- *key—S*tring of up to 20 alphanumeric characters; secret key used by the HMAC MD5 algorithm to generate the message digest
- *startAcceptTime, startAcceptMonth, startAcceptDay, startAcceptYear*—Time, month, day, year that the router will start accepting packets created with this password. Use military time format *HH*:*MM*[:*SS*].
- *startGenTime, startGenMonth, startGenDay, startGenYear*—Time, month, day, year that the router will start inserting this password into packets. Use military time format *HH*:*MM*[:*SS*].
- never—Indicates the router never stops accepting or generating packets; overrides previously specified stop times and keeps using the authentication key in sending and receiving PDUs with the corresponding authentication indefinitely

- *stopAcceptTime, stopAcceptMonth, stopAcceptDay, stopAcceptYear*—Time, month, day, year that the router will stop accepting packets created with this password. Use military time format *HH*:*MM*[:*SS*].
- *stopGenTime, stopGenMonth, stopGenDay, stopGenYear*—Time, month, day, year that the router will stop inserting this password into packets. Use military time format *HH*:*MM*[:*SS*].

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

area nssa

Description Configures an area as an NSSA and controls generation of type 7 default LSAs. NSSAs are similar to stub areas but have the additional capability of importing AS external routes in a limited fashion. The **no** version removes the specified option for default-information-originate, removes default-information-originate, or removes the NSSA designation from the area.

Syntax [no] area { *areaId* | *areaIdInt* } nssa [default-information-originate [always | metric *absoluteValue* | metric-type 1 | metric-type 2 | route-map *mapTag*]*] [no-summary]

- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value in the range 0–4294967295
- default-information-originate—Causes the generation of a type 7 default LSA if a default route exists in the routing table.
- always—Creates the default route if it does not exist
- *absoluteValue*—Metric applied to the generated type 7 default LSAs; ranges from 0–4294967295
- metric-type 1—Cost of the external routes is equal to the sum of all internal costs and the external cost
- metric-type 2—Cost of the external routes is equal to the external cost alone; this is the OSPF default
- *mapTag*—String of up to 32 alphanumeric characters that specifies a route map applied to the generated type 7 default LSAs
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line
- no-summary—Restricts T3 summary LSAs from flowing into the NSSA area (T7 external LSAs and T3 default route LSAs are still injected into the area)

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
no-summary keyword added in JUNOSe Release 7.2.0.

area range

Description Aggregates routes at an area boundary. By default, the range of configured networks is advertised in type 3 (summary) LSAs. The **no** version disables this function.

Syntax For OSPFv2:

[no] area { *areaId* | *areaIdInt* } range *ipAddress mask* [do-not-advertise] [cost *costValue*]

For OSPFV3:

[no] area { *areaId* | *areaIdInt* } range *ipv6Prefix/ipv6PrefixLength* [do-not-advertise | advertise | cost *costValue*]

- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value in the range 0–4294967295
- *ipAddress*—IP address to match
- *mask*—IP address mask
- *ipv6Prefix*—IPv6 network number to match
- *ipv6PrefixLength*—Length of the IPv6 prefix; a decimal value that indicates how many of the higher-order contiguous bits of the IPv6 address make up the prefix (the network portion of the IPv6 address). A slash (/) must precede this value.
- do-not-advertise—Specifies that the range of configured networks is not advertised
- advertise—Specifies that the range of configured networks is advertised (IPv6 only)
- *costValue*—Cost value for the specified range of networks in the range 0–65535

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
cost keyword and *costValue* variable for OSPFv2 added in JUNOSe Release 8.1.0.

area stub

Description Defines an area as a stub area. A stub area is an OSPF area that carries a default route, intra-area routes, and interarea routes, but does not carry AS external routes. This reduces the size of the area's OSPF database and decreases memory usage for external routers in the stub area. The **no** version disables this function.

Syntax [no] area { *areaId* | *areaIdInt* } stub [no-summary]

- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value in the range 0–4294967295
- no-summary—Specifies that the summary LSA not be sent into the stub area

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
no-summary keyword for OSPFv2 added in JUNOSe Release 7.2.0.

area virtual-link

Description Defines an OSPF virtual link. The **no** version removes the virtual link.

Syntax [no] area { *areaId* | *areaIdInt* } virtual-link *ipAddress*

- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value in the range 0–4294967295
- *ipAddress*—IP address associated with the virtual link neighbor

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

area virtual-link authentication-key

Description Configures simple password (type 1) authentication for OSPF virtual links. The **no** version removes the password.

Syntax [no] area { *areaID* | *areaIdInt* } virtual-link *ipAddress* authentication-key [0 | 8] *key*

- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value in the range 0–4294967295
- *ipAddress*—IP address of the virtual link neighbor
- 0—Indicates the *key* is entered in unencrypted form (plaintext); this is the default option
- 8—Indicates the *key* is entered in encrypted form (ciphertext)
- *key*—Password to be used by neighbors; string of up to 16 alphanumeric characters. All neighboring routers on the same network must have the same password.

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

area virtual-link authentication message-digest

Description Specifies that MD5 authentication is used for the virtual link. The **no** version sets the authentication for the virtual link to none, but leaves any configured MD5 key intact.

Syntax [no] area { *areaID* | *areaIdInt* } virtual-link *ipAddress* authentication message-digest

- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value in the range 0–4294967295
- *ipAddress*—IP address of the virtual link neighbor

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

area virtual-link authentication-none

Description Specifies that no authentication is to be used for the virtual link. The **no** version has no effect.

Syntax [no] area { *areaId* | *areaIdInt* } virtual-link *ipAddress* authentication-none

- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value in the range 0–4294967295
- *ipAddress*—IP address of the virtual link neighbor

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

area virtual-link dead-interval

Description Defines an OSPF virtual link and the time interval allowed for detecting a dead router. The **no** version removes the virtual link's dead interval.

Syntax [no] area { *areaId* | *areaIdInt* } virtual-link *ipAddress* dead-interval *deadInterval*

- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value in the range 0–4294967295
- *ipAddress*—IP address of the virtual link neighbor
- *deadInterval*—Integer in the range 0–2147483647 seconds; default value is 40 seconds

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

area virtual-link hello-interval

Description Defines an OSPF virtual link and the time between the hello packets. The hello interval value must be the same for both ends of the virtual link. The **no** version removes the virtual link's hello interval.

Syntax [no] area { *areaId* | *areaIdInt* } virtual-link *ipAddress* hello-interval *helloInterval*

- *areaId*—OSPF area ID in IP address format.
- *areaIdInt*—OSPF area ID as a decimal value in the range 0–4294967295
- *ipAddress*—IP address associated with the virtual link neighbor
- *helloInterval*—Integer in the range 1–65535 seconds; default value is 10 seconds

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

area virtual-link message-digest-key md5

Description Enables MD5 authentication and configures MD5 keys for virtual links. The **no** version deletes MD5 keys.

NOTE: If you delete all the MD5 keys, the authentication type for the virtual link is still MD5, but you need to configure MD5 keys.

NOTE: To disable MD5 authentication for the virtual link, use the **area virtual-link authentication-none** command.

Syntax area { *areaId* | *areaIdInt* } virtual-link *ipAddress* message-digest-key *md5KeyId* md5 [0 | 8] *msgDigestKey*

no area { *areaId* | *areaIdInt* } virtual-link *ipAddress* message-digest-key *md5KeyId*

- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value in the range 0–4294967295
- *ipAddress*—IP address of the virtual link neighbor
- *md5KeyId*—Key identifier in the range 1–255
- 0—Indicates the *msgDigestKey* is entered in unencrypted form (plaintext); this is the default option
- 8—Indicates the *msgDigestKey* is entered in encrypted form (ciphertext)
- *msgDigestKey*—Password to be used by neighbors; string of up to 16 alphanumeric characters. All neighboring routers on the same network must have the same password.

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

area virtual-link retransmit-interval

Description Defines an OSPF virtual link and the time between link-state advertisement retransmissions for the adjacency belonging to the virtual link. The **no** version removes the virtual link's retransmit interval.

Syntax [no] area { *areaId* | *areaIdInt* } virtual-link *ipAddress* retransmit-interval *retransmInterval*

- *areaId*—OSPF area ID in IP address format.
- *areaIdInt*—OSPF area ID as a decimal value in the range 0–4294967295
- *ipAddress*—IP address of the virtual link neighbor
- *retransmInterval*—LSA retransmit interval; an integer in the range 0–3600 seconds; default value is 5 seconds

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

area virtual-link transmit-delay

Description Defines an OSPF virtual link and the estimated time it takes to transmit a link-state update packet on the virtual link. The **no** version removes the virtual link's transmit delay.

Syntax [no] area { *areaId* | *areaIdInt* } virtual-link *ipAddress* transmit-delay *transmDelay*

- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value in the range 0–4294967295
- *ipAddress*—IP address associated with the virtual link neighbor
- *transmDelay*—LSA transmit delay; an integer in the range 0–3600 seconds; default value is 1 second

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

arp

Description In Global Configuration mode, adds a permanent entry in the ARP cache. This command applies only to Fast Ethernet, Gigabit Ethernet, 10-Gigabit Ethernet interfaces, and bridged Ethernet interfaces configured over ATM 1483. The **no** version removes an entry from the ARP cache.

In Subscriber Policy Configuration mode, modifies the subscriber policy for ARP to define whether the subscriber (client) interfaces belonging to a bridge group or VPLS instance forward (permit) or filter (deny) ARP packets. The **no** version restores the default value, permit ARP packets.

In Subscriber Policy Configuration mode, you cannot change the default subscriber policy values for trunk (server) interfaces belonging to a bridge group or VPLS interface. You also cannot change the default subscriber policy values for a VPLS virtual core interface, which acts as a trunk interface. The VPLS virtual core interface represents all of the MPLS tunnels from the router to the remote VPLS edge (VE) device.

Syntax To add a permanent ARP cache entry in Global Configuration mode:

[no] arp [vrf *vrfName*] *ipAddress interfaceType interfaceSpecifier*
[*macAddress* [validate]]

- *vrfName*—Name of the VRF to which the command applies; string of 1–32 alphanumeric characters
- *ipAddress*—IP address in 32-bit dotted-decimal format corresponding to the local data link address
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *macAddress*—MAC address of the interface
- validate—Allows the inclusion of MAC validation entries

To modify the subscriber policy for ARP packets in Subscriber Policy Configuration mode:

arp { permit | deny }

no arp

- permit—Specifies that the subscriber interface associated with the bridge group or VPLS instance forwards ARP packets
- deny—Specifies that the subscriber interface associated with the bridge group or VPLS instance filters ARP packets

Mode Global Configuration, Subscriber Policy Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

arp timeout

Description Specifies how long an entry remains in the ARP cache. You can set the ARP timeout on Fast Ethernet, Gigabit Ethernet, and 10-Gigabit Ethernet interfaces, and bridged Ethernet interfaces configured over ATM 1483. The default value is 21600 seconds (6 hours). Use the **show configuration** command to display the current value. The **no** version restores the default value.

Syntax arp timeout *timeoutVal*

no arp timeout

- *timeoutVal*—Time in seconds that an entry remains in the ARP cache

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

assured-rate

Description Sets the assured rate for the scheduler profile. The assured rate overrides the HRR weight of the scheduler node or queue. The **no** version deletes the assured rate.

Syntax assured-rate { *assuredRate* | hierarchical | [*operator operandValue*]* }

no assured-rate

- *assuredRate*—Constant assured rate in bits per second; in the range 25000–1000000000 (25 Kbps to 1 Gbps)
- hierarchical—Specifies that the node use the hierarchical assured rate (HAR) feature, in which the scheduler node's assured rate is dynamically adjusted based on the sum of the assured rates of all its child nodes and queues
- *operator*—Mathematical function
- *operatorValue*—Input for the operator; can be a QoS parameter definition name or an integer
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Scheduler Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
operator and *operandValue* variables added in JUNOSe Release 7.1.0.

Related Topics

- Configuring an Assured Rate for a Scheduler Node or Queue
- Configuring a Basic Parameter Definition for QoS Administrators

atm

Description Configures traffic-shaping parameters for PPPoA via domain-based parameters. The **no** version removes the ATM traffic-shaping configuration.

Syntax atm { ubr | ubrpcr *pcr* | nrtvbr *pcr scr mbs* | rtvbr *pcr scr mbs* | cbr *pcr* }

no atm

- ubr—Sets the traffic category to unspecified bit rate
- ubrpcr—Sets the traffic category to unspecified bit rate with peak cell rate
- nrtvbr—Sets the traffic category to non–real time variable bit rate
- rtvbr—Set the traffic category to real time variable bit rate
- cbr—Sets the traffic category to constant bit rate
- *pcr*—Peak cell rate in the range 0–4294967295 Kbps
- *scr*—Sustained cell rate in the range 0–4294967295 Kbps
- *mbs*—Maximum burst size in the range 0–4294967295 Kbps

Mode Domain Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm aal5 description

Description Assigns a text description or alias to an ATM AAL5 interface. The **no** version removes the text description or alias. Use the **show atm aal5 interface** command to display the text description.

Syntax atm aal5 description *name*

no atm aal5 description

- *name*—Alias for the AAL5 interface; up to 32 characters

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm aal5 shutdown

Description Sets the administrative state of an ATM AAL5 interface to disabled. The **no** version enables a disabled interface.

Syntax [no] atm aal5 shutdown

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm aal5 snmp trap link-status

Description Enables SNMP link status traps on the AAL5 layer on a per-interface basis. The **no** version disables the traps.

Syntax [no] atm aal5 snmp trap link-status

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm atm1483 advisory-rx-speed

Description Sets an advisory receive (RX) speed that the LAC sends in the RX Connect-Speed AVP [38] to the LNS. The **no** version restores the default behavior, in which the RX speed is not sent to the LNS.

Syntax atm atm1483 advisory-rx-speed *speed*

no atm atm1483 advisory-rx-speed

- *speed*—Speed in the range 0–2147483647 kbps

Mode Profile Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm atm1483 auto-configure

Description Specifies one or more types of dynamic upper interface encapsulations that are accepted or detected by a dynamic ATM 1483 subinterface. Optionally, specifies the lockout time range for the encapsulation type. You can issue this command repeatedly in Profile Configuration mode to include autodetection of multiple upper interface encapsulation types within the base profile for a dynamic ATM 1483 subinterface. The **no** version terminates detection of the specified encapsulation type.

NOTE: Encapsulation type lockout is available for bridged Ethernet, IP, PPP, and PPPoE encapsulation types.

Syntax atm atm1483 auto-configure *upperInterfaceType*
[lockout-time { *minValue maxValue* | none }]

no atm atm1483 auto-configure *upperInterfaceType* [lockout-time]

- *upperInterfaceType*—One of the following dynamic encapsulation types:
  - bridgedEthernet
  - ip
  - ppp
  - pppoe
- *minValue*—Minimum lockout time in the range 1–86400 seconds (24 hours); default value is 1 second
- *maxValue*—Maximum lockout time in the range 1–86400 seconds (24 hours); default value is 300 seconds (5 minutes)
- none—Disables lockout for the specified dynamic encapsulation type

Mode Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm atm1483 description

Description Assigns a text description or alias to an ATM 1483 interface. The **no** version removes the text description or alias. Use the **show atm subinterface** command to display the text description.

Syntax atm atm1483 description *name*

no atm atm1483 description

- *name*—Text string or alias for the ATM 1483 interface; up to 255 characters

Mode Profile Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm atm1483 export-subinterface-description

Description Exports ATM 1483 subinterface descriptions to the line module. The **no** version restores the default behavior, where ATM 1483 subinterface descriptions are not sent to the line module.

Syntax [no] atm atm1483 export-subinterface-description

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm atm1483 mtu

Description Sets the MTU size for an ATM 1483 subinterface. The **no** version restores the default MTU size of 9180.

Syntax atm atm1483 mtu *size*

no atm atm1483 mtu

- *size*—Maximum number of packet transmissions permitted on an ATM 1483 subinterface; in the range 256–9180; default value is 9180

Mode Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm atm1483 profile

Description Adds a nested profile assignment to a base profile for a dynamic ATM 1483 subinterface. A nested profile assignment references another profile that dynamically configures upper interface encapsulation types over the ATM 1483 subinterface. The **no** version removes the profile assignment for the upper interface type.

Syntax atm atm1483 profile *upperInterfaceType profileName*

no atm atm1483 profile *upperInterfaceType*

- *upperInterfaceType*—One of the following dynamic encapsulation types:
  - bridgedEthernet
  - ip
  - ppp
  - pppoe
- *profileName*—Profile name of up to 80 characters

Mode Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm atm1483 shutdown

Description Sets the administrative state of an ATM 1483 subinterface to disabled. The **no** version enables a disabled subinterface.

Syntax [no] atm atm1483 shutdown

Mode Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm atm1483 snmp trap link-status

Description Enables SNMP link status traps on the ATM1483 layer. The **no** version disables the traps.

Syntax [no] atm atm1483 snmp trap link-status

Mode Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm atm1483 subscriber

Description Configures a local subscriber (when one cannot be obtained externally, as in PPP) for a dynamic upper interface encapsulation type configured over a dynamic ATM 1483 subinterface. A subscriber supports authentication and configuration from the RADIUS server. The **no** version removes the subscriber.

Syntax atm atm1483 subscriber *upperInterfaceType* { user | user-prefix } *userName* domain *domainName* [{ password | password-prefix } *password*] [no-authenticate]

no atm atm1483 subscriber *upperInterfaceType*

- *upperInterfaceType*—One of the following dynamic encapsulation types:
  - bridgedEthernet
  - ip
- user—Employs the username as specified
- user-prefix—Appends the interface physical location to the username
- *userName*—RADIUS username
- *domainName*—Domain name
- password—Employs the password as specified
- password-prefix—Appends the interface physical location to the password
- *password*—RADIUS password
- no-authenticate—Disables authentication

Mode Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm auto-configuration

Description Enables autoconfiguration of ILMI. Autoconfiguration is enabled by default. This command overrides any previous configuration of the **atm uni-version** command. The **no** version disables auto configuration and sets the ILMI parameters to the UNI version configured using the **atm uni-version** command, which has a default value of UNI 4.0.

Syntax [no] atm auto-configuration

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm bulk-config

Description Configures a range of ATM PVCs for use by a dynamic ATM 1483 subinterface, and assigns a name to the virtual circuit (VC) range. Each VC range consists of one or more nonoverlapping VC subranges. A VC subrange is a group of VCs that resides within the specified VPI and VCI ranges. You can configure multiple VC ranges on an ATM AAL5 interface. The **no** version removes the specified VC range (including all subranges in the range) from the ATM AAL5 interface or the specified subrange from the VC range. The **no** version also removes any overriding profile assignments for ATM PVCs within the deleted VC range or VC subrange.

NOTE: The total number of VCs configured with the **atm bulk-config** command cannot exceed the maximum ATM VC capacity of the line module you are using. For details about the ATM VC capacity of supported line modules, see *JUNOSe Release Notes, Appendix A, System Maximums*.

Syntax atm bulk-config *bulkConfigName* [vc-range *vpiStart vpiEnd vciStart vciEnd*]*

no atm bulk-config *bulkConfigName* [vc-range *vpiStart vpiEnd vciStart vciEnd*]

- *bulkConfigName*—Name of the VC range; string of up to 80 characters
- *vpiStart*—Starting virtual path identifier (inclusive) of the VC subrange you are configuring
- *vpiEnd*—Ending virtual path identifier (inclusive) of the VC subrange you are configuring
- *vciStart*—Starting virtual circuit identifier (inclusive) of the VC subrange you are configuring
- *vciEnd*—Ending virtual circuit identifier (inclusive) of the VC subrange you are configuring
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm bulk-config modify

Description Modifies the VC subrange values for the specified bulk configuration VC range. If the new subrange encompasses previously configured subranges within that range, those subranges are merged into the new one, freeing subrange resources. There is no **no** version.

Syntax atm bulk-config *bulkConfigName* modify vc-range *vpiStart vpiEnd vciStart vciEnd*

- *bulkConfigName*—Name of the VC range; string of up to 80 characters
- *vpiStart*—Starting virtual path identifier (inclusive) of the VC subrange you are configuring
- *vpiEnd*—Ending virtual path identifier (inclusive) of the VC subrange you are configuring
- *vciStart*—Starting virtual circuit identifier (inclusive) of the VC subrange you are configuring
- *vciEnd*—Ending virtual circuit identifier (inclusive) of the VC subrange you are configuring

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm bulk-config shutdown

Description Administratively disables (shuts down) the specified VC range or subrange. The **no** version reenables the specified VC range or the specified subranges; this is the default condition.

Syntax [no] atm bulk-config *bulkConfigName* shutdown
[vc-range *vpiStart vpiEnd vciStart vciEnd*]

- *bulkConfigName*—Name of the VC range; string of up to 80 characters
- *vpiStart*—Starting virtual path identifier (inclusive) of the VC subrange you are configuring
- *vpiEnd*—Ending virtual path identifier (inclusive) of the VC subrange you are configuring
- *vciStart*—Starting virtual circuit identifier (inclusive) of the VC subrange you are configuring
- *vciEnd*—Ending virtual circuit identifier (inclusive) of the VC subrange you are configuring

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm cac

Description Enables CAC on the ATM interface. If the subscription limit or UBR weight parameters are set to zero, the router uses the effective port bandwidth as the subscription bandwidth. The effective bandwidth varies according to line module. The **no** version disables CAC on the interface.

NOTE: If you modify one of these parameters after CAC is enabled, you must modify both parameters. Otherwise, the parameter not specified reverts to its default value.

Syntax [no] atm cac [*subscriptionBandwidth*] [ubr *ubrWeight*]

- *subscriptionBandwidth*—Maximum allowable bandwidth on this port in the range 0–2147482647 Kbps; default value is 0
- *ubrWeight*—Bandwidth associated with UBR and UBR-PCR connections in the range 0–2147482647 Kbps; default value is 0

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm cell-packing

Description Configures cell concatenation parameters for an ATM 1483 subinterface that provides ATM layer 2 services over MPLS with virtual channel connection (VCC) cell relay encapsulation. The **no** version restores the default cell concatenation parameters for the subinterface.

NOTE: See the **atm mcpt-timers** command for information about configuring systemwide values for the three ATM Martini cell packing timers to define the cell collection time threshold.

Syntax atm cell-packing *maxCellsPerPacket* mcpt-timer *timerIdentifier*

no atm cell-packing

- *maxCellsPerPacket*—Maximum number of ATM cells in the range 1–190 that the router can concatenate in a single VCC cell relay–encapsulated packet and transmit on an MPLS pseudowire connection; default value is 1 cell per packet
- *timerIdentifier*—Integer in the range 1–3 that identifies which of the three ATM Martini cell packing timers (timer 1, timer 2, or timer 3) you want to use to detect timeout of the cell collection time threshold; default value is 1. When the timer expires, the router forwards the packet even if the number of concatenated ATM cells in the packet is fewer than the specified maximum number of cells per packet.

Mode Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring an MPLS Pseudowire with VCC Cell Relay Encapsulation

atm-cell-mode

Description Accounts for the ATM cell tax in rate calculations for interface types that support rate-limiting and are stackable over ATM. The **no** version restores the default, which uses the frame size with the layer 2 header included.

Syntax [no] atm-cell-mode

Mode Policy List Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

Related Topics

- Enabling ATM Cell Mode

atm classifier-list

Description Creates a classifier control list that can only be used in ATM policy lists. The **no** version removes the ATM classifier control list. ATM packets are classified on CLP. The CLP bit is not available on frame-based interfaces on E-series router line modules.

Syntax atm classifier-list *classifierName* [traffic-class *trafficClassName*] [color { green | yellow | red }] [user-packet-class *userPacketClassValue*] [clp *clpValue*]

no atm classifier-list *classifierName* [*classifierNumber*]

- *classifierName*—Name of the classifier control list entry
- *trafficClassName*—Name of the traffic class to match
- green—Matches packet color to green, indicating a low drop preference
- yellow—Matches packet color to yellow, indicating a medium drop preference
- red—Matches packet color to red, indicating a high drop preference
- *userPacketClassValue*—User packet value to match in the range 0–15
- *clpValue*—Value of the CLP, 0 or 1
- *classifierNumber*—Index of the classifier control list entry to be deleted

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

Related Topics

- Creating or Modifying Classifier Control Lists for ATM Policy Lists

atm class-vc

Description Assigns a previously configured VC class to a base profile for a dynamic ATM 1483 subinterface. Issuing this command applies the set of attributes in the specified VC class to all bulk-configured VC ranges that are dynamically created from this profile. The **no** version removes the VC class association with the base profile.

Syntax atm class-vc *vcClassName*

no atm class-vc [*vcClassName*]

- *vcClassName*—Name of the VC class configured with the **vc-class atm** command

Mode Profile Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

atm clock internal

Description Causes the ATM interface to generate the transmit clock internally. The **no** version causes ATM interfaces to recover the clock from the received signal. If the internal clock is chosen and no internal source is specified, then the internal clock source is taken from the line module.

Syntax [no] atm clock internal [*internalSource*]

- *internalSource*—One of the following:
  - module—Specifies that the internal clock is from the line module
  - chassis—Specifies that the internal clock is from the configured router clock

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm description

Description Assigns a text description or alias to the ATM interface. The first 32 characters of the description are pushed out to RADIUS during authentication and accounting. The **show atm interface** command displays the text description. The **no** version removes the text description or alias.

Syntax atm description *name*

no atm description

- *name*—Text string or alias of up to 255 characters; can include the # (pound sign) character

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm dos-protection-group

Description Attaches an ATM denial of service (DoS) protection group to an interface. The **no** version removes the DoS protection group.

Syntax atm dos-protection-group *groupName*

no atm dos-protection-group

- *groupName*—Name of the DoS protection group; string of up to 31 alphanumeric characters

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

atm framing

Description Configures T3 or E3 framing on an ATM interface. The **no** version returns framing to the default. For a T3 interface, the default value is cbitplcp. For an E3 interface, the default value is g751plcp.

Syntax atm framing *framingType*

no atm framing

- *framingType*—One of the following:
  - cbitadm—c-bit with ATM direct mapping for a DS3 (T3) interface
  - cbitplcp—c-bit with PLCP framing for a DS3 (T3) interface (default for T3)
  - g832adm—G.832 ATM direct mapping for an E3 interface
  - g751adm—G.751 ATM direct mapping for an E3 interface
  - g751plcp—G.751 PLCP mapping for an E3 interface (default for E3)
  - m23adm—M23 ATM direct mapping for a DS3 (T3) interface
  - m23plcp—M23 with PLCP framing for a DS3 (T3)

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm ilmi-enable

Description Enables ILMI on the interface. The **no** version removes the ILMI PVC.

Syntax [no] atm ilmi-enable

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm ilmi-keepalive

Description Enables generation of ILMI keepalive messages on the router, affecting the operational state of the ATM interface. The **no** version disables the generation of keepalive messages.

Syntax [no] atm ilmi-keepalive [*seconds*]

- *seconds*—Number in the range 0–4294967295; the interval in seconds between two consecutive ILMI keepalive requests

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm lbo

Description Specifies the cable length (line build-out) for the ATM T3 or E3 interface. The length of cable determines power requirements. The **no** version restores the default value.

Syntax atm lbo { long | short }

no atm lbo

- long—Specifies cable length in the range 226–450 feet
- short—Specifies cable length in the range 0–225 feet (the default)

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm mcpt-timers

Description Configures systemwide values for the three ATM Martini cell packing timers. These timers define the time threshold that the router uses to collect and concatenate ATM cells in a single VCC cell relay–encapsulated packet and transmit the packet on an MPLS pseudowire connection. When the timer expires, the router forwards the packet even if the number of concatenated ATM cells in the packet is fewer than the specified maximum number of cells per packet. The **no** version restores the default values for all three timers.

NOTE: See the **atm cell-packing** command for information about specifying the maximum number of concatenated cells per packet and identifying which of the three ATM Martini cell packing timers you want to use to detect timeout of the cell collection threshold.

Syntax atm mcpt-timers *timer1 timer2 timer3*

no atm mcpt-timers

- *timer1*—Number of microseconds in the range 100–4095; default value is 100
- *timer2*—Number of microseconds in the range 100–4095; default value is 500
- *timer3*—Number of microseconds in the range 100–4095; default value is 1000

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring an MPLS Pseudowire with VCC Cell Relay Encapsulation

atm oam

Description Configures F4 OAM on an interface or circuit. The **no** version deletes F4 OAM circuits.

NOTE: If you do not specify any options, both F4 end-to-end OAM and F4 segment OAM are enabled on all VPIs on the interface.

Syntax atm oam [*vpi*] [[seg-loopback | end-loopback [loopback-timer *time*]] [cc { source | sink | both }]]

no atm oam [*vpi*] [[seg-loopback | end-loopback [loopback-timer *time*]]]

- *vpi*—VPI on which you want to enable F4 OAM. If you do not specify a VPI, F4 OAM flow is enabled on all VPIs on the interface.
- seg-loopback—Enables F4 segment OAM
- end-loopback—Enables F4 end-to-end OAM
- loopback-timer—To generate F4 loopback cells on the VPI, you must configure the loopback timer; you can set the loopback timer only for end-to-end loopback
- *time*—Time interval in the range 1–600 seconds between transmissions of F4 loopback cells.
- cc—Enables CC cells on the PVC; you can enable CC cells only on data circuits, not on control circuits, such as ILMI or signaling circuits
- sink—Enables this VC as a sink point (cell receiver)
- source—Enables this VC as the source point (cell generator)
- both—Enables this VC as both a sink point and a source point

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm oam flush

Description Configures the router to ignore all OAM cells received on an ATM interface, and to stop sending OAM cells on this interface. OAM performs fault management and performance management functions on an ATM interface. The **no** version disables OAM flush on the interface.

Syntax [no] atm oam flush [alarm-cells]

- alarm-cells—Causes the router to ignore only AIS and RDI cells and to accept all other OAM cells

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm oam loopback-location

Description Sets the location ID of the ATM interface. The **no** version returns the loopback location to the default setting of all 1s (ones).

Syntax atm oam loopback-location *locationID*

[no] atm oam loopback-location

- *locationID*—Value of the four-octet long location ID of the ATM interface

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm policy

Description Assigns a policy list to the ingress or egress of an ATM interface. If you enter this command when the policy list does not exist, the router creates a policy list with a filter rule as the default. You must specify the **input** or **output** keyword to assign the policy list to the ingress or egress of the interface. The **no** version removes the association between a policy list and an interface.

Syntax atm policy { input | output } *policyName*
[statistics { enabled [preserve | merge] | disabled [merge] } | merge]

no atm policy { input | output } [*policyName*]

- input—Applies policy to data arriving at this interface
- output—Applies policy to data leaving this interface
- *policyName*—Name of the policy; a maximum of 40 characters
- statistics—Enables or disables collection of policy routing statistics
  - enabled—Enables collection of policy routing statistics
  - preserve—Preserves existing statistics for any classifier-list that is the same for both the new and old policy attachments when you attach a new policy to an interface
  - disabled—Disables collection of policy routing statistics
- merge—Enables merging of multiple policies to form a single policy

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.
merge keyword added in JUNOSe Release 7.2.0.

Related Topics

- Setting a Statistics Baseline

atm policy-list

Description Creates an ATM policy list and accesses Policy List Configuration mode. If you execute an **atm policy-list** command and type **exit**, the router creates a policy list with a filter rule as the default. Attaching this policy list to an interface filters all packets on that interface. The **no** version removes a policy list.

Syntax [no] atm policy-list *policyName*

- *policyName*—Name of the policy list; a maximum of 40 characters

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

Related Topics

- Creating Policy Lists for ATM

atm pvc

Description From Interface Configuration or Subinterface Configuration mode, creates a PVC on an ATM interface. The **no** version removes the specified PVC.

From Profile Configuration mode, applies encapsulation, traffic-shaping, and OAM parameters to the range of PVCs configured on a static ATM AAL5 interface for use by a dynamic ATM 1483 subinterface. The **no** version restores the default service type, UBR, on the VC range.

NOTE: The optional *peak*, *average*, and *burst* parameters configure traffic-shaping parameters for the circuit. The allowable traffic-shaping features and range specifications depend on the line module capabilities.

Syntax To create a PVC on an ATM interface when using the **aal5snap**, **aal5autoconfig**, or **aal5mux ip** encapsulation type:

atm pvc *vcd vpi vci encapsulation* [cbr *cbr* | *peak* [*average burst* [rt]]]
[oam [*seconds* | cc [segment | end-to-end] { source | sink | both }]]
[inArp [*minutes*]]

no atm pvc *vcd*

To create a PVC on an ATM interface when using the **aal5all**, **aal0**, or **ilmi** encapsulation type:

atm pvc *vcd vpi vci encapsulation* [cbr *cbr* | *peak* [*average burst* [rt]]]

no atm pvc *vcd*

To use a profile to apply encapsulation and traffic-shaping parameters to a bulk range of PVCs configured for a dynamic ATM 1483 subinterface:

atm pvc *encapsulation* [cbr *cbr* | *peak* [*average burst* [rt]]] [oam *seconds*]

no atm pvc

- *vcd*—Virtual circuit descriptor that is an identifier for the VC in other commands; in the range 1–2147483647

- *vpi*—Virtual path identifier of this PVC. The allowable numeric range depends on the line module capabilities and current configuration. The VPI and VCI cannot both be set to 0; if one is 0, the other cannot be 0.
- *vci*—Virtual circuit identifier of this PVC. The allowable numeric range depends on the line module capabilities and current configuration. The VPI and VCI cannot both be set to 0; if one is 0, the other cannot be 0.
- *encapsulation*—Available options differ for ATM interfaces and dynamic ATM 1483 subinterfaces, as follows:
  - For PVCs created on ATM interfaces:
    - aal5all—Causes the router to pass through all ATM AAL5 traffic without interpreting it; supported for ATM layer 2 services over MPLS
    - aal0—Causes the router to receive raw ATM cells on this circuit and forward the cells without performing AAL5 packet reassembly; supported for ATM layer 2 services over MPLS
    - aal5snap—LLC encapsulated circuit; LLC/SNAP header precedes the protocol datagram
    - aal5mux ip—VC-based multiplexed circuit used for IP only
    - aal5autoconfig—Enables autodetection of the 1483 encapsulation (LLC/SNAP or VC multiplexed)
    - ilmi—Integrated local management interface encapsulation
  - For PVCs created on dynamic ATM 1483 subinterfaces:
    - aal5snap—LLC encapsulated circuit; LLC/SNAP header precedes the protocol datagram
    - aal5mux ip—VC-based multiplexed circuit used for IP only
    - aal5autoconfig—Enables autodetection of the 1483 encapsulation (LLC/SNAP or VC multiplexed)
- *cbr*—Constant bit rate in Kbps
- *peak*—PCR in Kbps
- *average*—Average rate in Kbps; also referred to as SCR
- *burst*—Length in cells of the burst; also referred to as MBS
- rt—Selects VBR-RT as the service type; the default type is VBR-NRT. You can select **rt** only if you set the *peak*, *average*, and *burst* parameters.
- oam—Enables generation of OAM F5 loopback cells on this circuit. This option enables VC integrity features that affect the operational state of the ATM PVC. You can use the **oam** keyword only if you specify the **aal5snap**, **aal5autoconfig**, or **aal5mux ip** encapsulation type.
- *seconds*—Time interval in the range 1–600 seconds between transmissions of OAM F5 end-to-end loopback cells for VC connectivity verification.
- inArp—Enables Inverse ARP. You can use the **inArp** keyword only if you specify the **aal5snap** encapsulation type.

- *minutes*—Inverse ARP refresh rate in minutes; 15 minutes is the default
- cc—Enables CC cells on the PVC; you can enable CC cells only on data circuits, not on control circuits, such as ILMI or signaling circuits
- segment—Opens an OAM CC segment cell flow
- end-to-end—Opens an OAM CC end-to-end cell flow
- sink—Enables this VC as a sink point (cell receiver)
- source—Enables this VC as the source point (cell generator)
- both—Enables this VC as both a sink point and a source point

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring an MPLS Pseudowire with VCC Cell Relay Encapsulation
- Configuring Local ATM Cross-Connects with AAL5 Encapsulation
- Configuring MPLS LSPs

atm shutdown

Description Administratively disables an ATM interface. The **no** version enables a disabled interface.

Syntax [no] atm shutdown

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm snmp trap link-status

Description Enables SNMP link status traps on the ATM layer on a per-interface basis. The **no** version disables the traps.

Syntax [no] atm snmp trap link-status

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm sonet stm-1

Description Sets the mode of operation on the physical interface to SDH STM-1. The **no** version restores the default value, SONET STS-3c operation.

Syntax [no] atm sonet stm-1

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm uni-version

Description Specifies the UNI version the interface should use. There is no **no** version.

Syntax atm uni-version *versionNumber*

- *versionNumber*—UNI version number: 3.0, 3.1, or 4.0

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm vc-per-vp

Description Configures the number of virtual circuits per virtual path. This command controls the VPI and VCI range on the ATM interface. The allowable configuration range depends on the line module. The router will not execute the command if any virtual circuits are open on the interface. The **no** version restores the default.

NOTE: This command is not available for ATM interfaces on the E120 router and the E320 router because they support the entire VPI/VCI range.

NOTE: The minimum number of VCs per VP is 4096 for OC3-4 modules and 1024 for T3 ATM modules. If you enter a value that is below the minimum, the router uses the minimum value.

NOTE: VCs and VP tunnels must not exist when you issue this command. If they do, you must delete the VC and VP tunnel configuration before you issue this command.

Syntax atm vc-per-vp [*vcCount*]

no atm vc-per-vp

- *vcCount*—Number of virtual circuits per virtual path

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm vp-description

Description Assigns a text description to an individual virtual path (VP) on an ATM interface. Use the **show atm vp-description** command to display the description. The **no** version restores the default value, a null string.

Syntax atm vp-description *vpi description*

no atm vp-description *vpi*

- *vpi*—Virtual path identifier number in the range 0–255
- *description*—Text string or alias for the specified VPI; up to 32 characters

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

atm-vp qos-parameter

Description Attaches a QoS parameter instance to the specified VP on the ATM major interface. The **no** version detaches the parameter instance from the specified VP.

Syntax atm-vp *vpi* qos-parameter *qosParameterInstanceName qosParameterInstanceValue*

no atm-vp *vpi* qos-parameter *qosParameterInstanceName*

- *vpi*—Virtual path identifier of this PVC; number in the range 0–255
- *qosParameterInstanceName*—Name of the parameter instance that you want to attach to the VP
- *qosParameterInstanceValue*—Number of the scheduler rate for the parameter instance; the default value is the minimum value defined in the parameter definition

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

Related Topics

- Creating Parameter Instances

atm-vp qos-profile

Description Attaches a QoS profile to the specified VP on the interface. The **no** version detaches the QoS profile from the VP.

Syntax [no] atm-vp *vpi* qos-profile *qosProfileName*

- *vpi*—Virtual path identifier of this PVC; number in the range 0–255
- *qosProfileName*—Name of the QoS profile that you want to attach to the VP

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Attaching a QoS Profile to an Interface

atm vp-tunnel

Description Defines a virtual path tunnel and configures the rate of traffic flow within the tunnel. For QoS configurations, use to configure a shapeless VP tunnel. The **no** version removes the restriction.

Syntax atm vp-tunnel *vpi* [cbr] [*kbps*]

no atm vp-tunnel *vpi*

- *vpi*—Number in the range 0–255; virtual path identifier of this PVC
- cbr—Specifies the service class as constant bit rate
- *kbps*—Tunnel rate for a virtual path. The aggregate to this traffic from all circuits configured in the tunnel is held to the specified rate. Certain line modules may have minimum rates for VP tunnels. Using a rate of 0 configures a shapeless tunnel (a tunnel with no rate) that is used for VP shaping in the SAR.

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

authentication

Description Specifies the authentication method to use in the IKE policy. The **no** version restores the default, preshared keys.

Syntax authentication { rsa-sig | pre-share }

no authentication

- rsa-sig—Specifies RSA signature as the authentication method
- pre-share—Specifies preshared keys as the authentication method

Mode IKE Policy Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

authentication key

Description Specifies the password for text authentication and the key for MD5 authentication for RIP remote-neighbor interface. The **no** version clears the key for the interface. Supported only in RIP version 2. Authentication is disabled by default.

Syntax authentication key [0 | 8] *authkey*

no authentication key

- 0—Indicates the *authKey* is entered in unencrypted form (plaintext); this is the default option
- 8—Indicates the *authKey* is entered in encrypted form (ciphertext)
- *authkey*—Password sent with RIP messages or the key used to encrypt/decrypt RIP messages, depending on the authentication mode set for this remote-neighbor interface.

Mode Remote Neighbor Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

authentication-key

Description Enables simple password authentication and assigns a password used by OSPF remote neighbors. The **no** version deletes the password.

Syntax authentication-key [0 | 8] *authKey*

no authentication-key

- 0—Indicates the *authKey* is entered in unencrypted form (plaintext); this is the default option
- 8—Indicates the *authKey* is entered in encrypted form (ciphertext)
- *authKey*—Password; string of up to 8 characters

Mode Remote Neighbor Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

authentication message-digest

Description Specifies that MD5 authentication is used for the OSPF remote-neighbor interface. There is no **no** version.

Syntax authentication message-digest

Mode Remote Neighbor Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

authentication mode

Description Specifies the type of authentication used on the RIP remote-neighbor interface. Authentication is disabled by default. The **no** version removes authentication from the interface. Supported only in RIP version 2.

Syntax authentication mode { text | md5 *keyID* }

no authentication mode

- text—Sends a simple text password with each RIP message; if the password is not possessed by remote neighbors, the message is rejected
- md5—Encrypts and compresses the RIP message with MD5 message-digest algorithms
- *keyID*—Number identifying the MD5 key in the range 1–255; remote neighbors must share the MD5 key to decrypt the message and encrypt the response

Mode Remote Neighbor Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

authentication-none

Description Specifies that no authentication is to be used for the OSPF remote-neighbor interface. There is no **no** version.

Syntax authentication-none

Mode Remote Neighbor Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

authorization

Description Enables AAA authorization for a specified vty line or group of vty lines. Associates the authorization list with the specified line. If the list does not exist or is empty, authorization always succeeds. For a command to be authorized, its level must match exactly with the level of one of the configured lists. The **no** version disables authorization.

Syntax authorization { exec | commands *level* } *authorListName*

no authorization {exec | commands *level* }

- exec—Applies this authorization to CLI access in general
- commands—Applies this authorization to user commands of the specified privilege level
- *level*—Privilege level; a number in the range 0–15
- *authorListName*—Name of an authorization method list of up to 32 characters; if no methods list is specified, the default is used

Mode Line Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

authorization change

Description Enables the router to receive change-of-authorization messages, such as packet mirroring attributes and Service Manager attributes, from the RADIUS server. The **no** version restores the default, in which support for RADIUS-initiated change-of-authorization messages is disabled on the router.

Syntax [no] authorization change

Mode RADIUS Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring RADIUS-Based Mirroring

auth-router-name

Description Assigns an access virtual router. The **no** version restores the default router.

NOTE: This command replaces the deprecated **router-name** command, which may be removed completely in a future release.

Syntax [no] auth-router-name *vrName*

- *vrName*—Name of the virtual router; string of 1–32 alphanumeric characters

Mode Domain Map Configuration

Release Information Command introduced in JUNOSe Release **TBD**.

auto-configure

Description Specifies the type(s) of dynamic encapsulations that are accepted or detected by the static ATM 1483 interface. Optionally, specifies the lockout time range for the encapsulation type. You can enter this command repeatedly in Subinterface Configuration mode. The **no** version terminates detection of the specified encapsulation type or, if the **lockout-time** keyword is specified, restores the lockout time range to its default values.

NOTE: Encapsulation type lockout is available for bridged Ethernet, IP, PPP, and PPPoE encapsulation types.

Syntax auto-configure *upperInterfaceType* [lockout-time { *minValue maxValue* | none }]

no auto-configure *upperInterfaceType* [lockout-time]

- *upperInterfaceType*—One of the following dynamic encapsulation types:
  - bridgedEthernet
  - ip
  - ppp
  - pppoe
- *minValue*—Minimum lockout time in the range 1–86400 seconds (24 hours); default value is 1 second
- *maxValue*—Maximum lockout time in the range 1–86400 seconds (24 hours); default value is 300 seconds (5 minutes)
- none—Disables lockout for the specified dynamic encapsulation type

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

auto-configure atm1483

Description Configures the static ATM AAL5 interface to support autodetection of an ATM 1483 dynamic encapsulation type. The **no** version terminates autodetection of the ATM 1483 encapsulation type.

Syntax [no] auto-configure atm1483

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

auto-configure vlan

Description Configures the static VLAN major interface to support autodetection of a dynamic VLAN subinterface. The **no** version terminates autodetection of the VLAN subinterface.

Syntax [no] auto-configure vlan

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

auto-cost reference-bandwidth

Description Controls how OSPFv3 calculates default metrics for the interface. The **no** version assigns cost based only on the interface type.

Syntax [no] auto-cost reference-bandwidth *refBw*

- *refBw*—Bandwidth in megabits per second in the range 1–4294967; default value is 100

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

automatic-virtual-link

Description Enables or disables automatic virtual link configuration. The **no** version disables an automatic virtual link.

Syntax [no] automatic-virtual-link

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

auto-summary

Description Reenables the automatic summarization of routes redistributed into BGP to their natural network masks. Automatic summarization is enabled by default. The **no** version disables automatic summarization.

Syntax [no] auto-summary

Mode Address Family Configuration, Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

average-length-exponent

Description Specifies the exponent used to weight the average queue length over time, controlling WRED responsiveness. The **no** version negates the average-length-exponent.

Syntax average-length-exponent *exponent*

no average-length-exponent

- *exponent*—Total average queue length (TAQL) coefficient

Mode Drop Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring RED
- Configuring WRED

avp

Description Configures the L2TP tunnel switching behavior for a specified L2TP AVP type. The **no** version restores the default L2TP tunnel switching behavior for AVPs of the specified type.

Syntax avp *avpType action*

no avp *avpType*

- *avpType*—One of the following L2TP AVPs
  - bearer-type—L2TP Bearer Type AVP 18; by default, the router regenerates this AVP at the outbound LAC session, based on the local policy that is in effect
  - calling-number—L2TP Calling Number AVP 22; by default, the router regenerates this AVP at the outbound LAC session, based on the local policy that is in effect
  - cisco-nas-port—Cisco NAS Port Info AVP 100; by default, the router drops this AVP
- *action*—One of the following actions that characterize the tunnel switching behavior; currently, only the **relay** action is supported
  - relay—Causes the router to preserve the value of an incoming AVP of the specified type when packets are switched between an inbound LNS session and an outbound LAC session

Mode L2TP Tunnel Switch Profile Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

bandwidth

Description Specifies the total bandwidth available on the interface. The **no** version removes the admission control configuration from the interface. For total reservable bandwidth, see the **mpls bandwidth** command.

Syntax bandwidth *bandwidth*

no bandwidth

- *bandwidth*—Available bandwidth in kilobits per second, a value from 1–10,000,000

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bandwidth oversubscription

Description Allows the line modules to operate below line rate performance. The **no** version forces the line modules to operate at line rate performance.

Syntax [no] bandwidth oversubscription

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

banner

Description Configures message-of-the-day, login, or exec banners to be displayed by the CLI. If you do not specify an option, the behavior is the same as if you specified the **motd** option. The **no** version deletes the banner.

Syntax banner [motd | login | exec] *bannerText*

no banner [motd | login | exec]

- motd—Displays the banner when a console or vty connection is initiated
- login—Displays the banner before any user authentication (line or RADIUS authentication); the banner is also displayed if user authentication is not configured
- exec—Displays the banner after user authentication (if any) and before the first prompt of a CLI session
- *bannerText*—Alphanumeric string truncated at 1024 characters; delimited by the first character of the string, which must be repeated at the end of the string and must not occur anywhere else in the string

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline aaa

Description Sets a statistics baseline for authentication and authorization statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline aaa

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline aaa route-download

Description Sets a statistics baseline for route downloads. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline aaa route-download

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 8.1.0.

baseline atm vp interface

Description Sets a statistics baseline for an ATM virtual path (VP) interface. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline atm vp interface atm *interfaceSpecifier vpi*

- *interfaceSpecifier*—ATM interface specifier; see *Interface Types and Specifiers* in *About This Guide*
- *vpi*—Virtual path identifier of the PVC. The numeric range depends on the line module capabilities and current configuration.

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.1.0.

baseline bridge

Description Sets a statistics baseline for a bridge group or VPLS instance. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline bridge { *bridgeGroupName* | *vplsName* }

- *bridgeGroupName*—Name of a bridge group specified with the **bridge** command
- *vplsName*—Name of a VPLS instance created with the **bridge vpls transport-virtual-router** command

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.
vplsName variable added in JUNOSe Release 7.1.0.

baseline bridge interface

Description Sets a statistics baseline for a specified network interface belonging to a bridge group or VPLS instance. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

NOTE: Using the **baseline bridge interface** command for a VPLS instance affects the specified network interface associated with the VPLS instance, but has no effect on the VPLS virtual core interface, which represents all of the MPLS tunnels from the router to the remote VPLS edge (VE) devices. To set a statistics baseline for the VPLS virtual core interface, use the **baseline bridge interface vpls** command.

Syntax baseline bridge interface *interfaceType interfaceSpecifier*

- *interfaceType*—One of the following interface types listed in *Interface Types and Specifiers* in *About This Guide*:
  - atm
  - fastEthernet
  - gigabitEthernet
  - tenGigabitEthernet
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline bridge interface vpls

Description Sets a statistics baseline for a VPLS instance on the VPLS virtual core interface, which represents all of the MPLS tunnels from the router to the remote VPLS edge (VE) devices. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

NOTE: Using the **baseline bridge interface vpls** command affects the VPLS virtual core interface, but has no effect on the network interfaces associated with the VPLS instance. To set a statistics baseline for a VPLS network interface, use the **baseline bridge interface** command.

Syntax baseline bridge interface vpls *vplsName*

- *vplsName*—Name of a VPLS instance created with the **bridge vpls transport-virtual-router** command

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.1.0.

baseline clns

Description Sets a statistics baseline for CLNS. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline clns [*interfaceType interfaceSpecifier*]

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline cops

Description Sets a baseline for the Common Open Policy Service (COPS) statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline cops

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.1.0.

baseline dhcp

Description Sets a statistics baseline for DHCP relay and DHCP relay proxy statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline dhcp { server | relay }

- server—Sets baseline for DHCP proxy server statistics
- relay—Sets baseline for DHCP relay statistics

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Setting Baselines for DHCP Statistics

baseline frame-relay interface

Description Sets a statistics baseline for Frame Relay and MLFR interfaces, subinterfaces, and circuits. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline frame-relay interface *interfaceType interfaceSpecifier* [*dlci*]

- *interfaceType*—One of the following interface types listed in *Interface Types and Specifiers* in *About This Guide:*
  - mlframe-relay
  - pos
  - serial
  - tunnel
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *dlci*—DLCI number to be used on the specified subinterface to identify a virtual circuit in the range 16–1007

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline frame-relay multilinkinterface

Description Sets a statistics baseline for MLFR links. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline frame-relay multilinkinterface *interfaceType interfaceSpecifier*

- *interfaceType*—One of the following interface types listed in *Interface Types and Specifiers* in *About This Guide*:
  - serial
  - pos
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline hdlc interface

Description Sets a statistics baseline for Cisco HDLC interfaces. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline hdlc interface *interfaceType interfaceSpecifier*

- *interfaceType*—One of the following interface types listed in *Interface Types and Specifiers* in *About This Guide*:
  - pos
  - serial
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline interface

Description Sets a statistics baseline for an interface or a specific ATM virtual circuit. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline interface *interfaceType interfaceSpecifier* [*vcd*]

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *vcd*—Virtual circuit descriptor; number in the range 1–4294967295; an identifier for the VC in other commands (ATM interfaces only)

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ip

Description Sets the baseline on general IP traffic statistics as the current value. There is no **no** version.

Syntax baseline ip [vrf *vrfName*]

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ip bgp

Description Sets the baseline on all BGP statistics as the current value. There is no **no** version.

Syntax baseline ip bgp

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ip dhcp-external

Description Sets a baseline for DHCP external server statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline ip dhcp-external

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Setting Baselines for DHCP Statistics

baseline ip dhcp-local

Description Sets a baseline for DHCP local server statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline ip dhcp-local [interface *interfaceType interfaceSpecifier*]

- *interfaceType*—One of the following interface types listed in *Interface Types and Specifiers* in *About This Guide*:
  - atm
  - fastEthernet
  - gigabitEthernet
  - tenGigabitEthernet
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ip dvmrp

Description Sets a baseline for DVMRP statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline ip dvmrp

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ip http

Description Sets a baseline for HTTP local server statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline ip http

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.2.0.

baseline ip igmp

Description Sets a baseline for IGMP statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline ip igmp

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ip igmp-proxy interface

Description Sets the baseline on all IGMP statistics by setting the counters for the numbers of queries received and reports sent on the upstream interface to zero. There is no **no** version.

Syntax baseline ip igmp-proxy interface

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ip inspection global

Description Sets a statistics baseline for global firewall statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline ip inspection global

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ip inspection name

Description Sets a statistics baseline for the specified firewall inspection list. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline ip inspection name [*listName*]

- *listName*—Name of the firewall inspection list; string of 1–32 alphanumeric characters

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ip interface

Description Sets a baseline for IP interface statistics. There is no **no** version.

Syntax baseline ip interface [vrf *vrfName*] *interfaceType interfaceSpecifier*

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ip mobile home-agent

Description Sets a statistics baseline for a specified Mobile IP home agent for control traffic. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline ip mobile home-agent

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 9.0.0.

baseline ip nat

Description Sets a baseline for NAT statistics and counters. There is no **no** version.

Syntax baseline ip nat

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ip ospf

Description Sets a baseline for OSPF statistics and counters. There is no **no** version.

Syntax baseline ip ospf

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ip rip

Description Sets a statistics baseline for RIP interfaces. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline ip rip

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ip tunnel-reassembly

Description Sets a statistics baseline for tunnel reassembly statistics on the current virtual router. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever you retrieve baseline-relative statistics. There is no **no** version.

Syntax baseline ip tunnel-reassembly

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 8.0.0.

baseline ip udp

Description Sets a statistics baseline for UDP statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline ip udp [vrf *vrfName*]

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ip vrrp

Description Sets a statistics baseline for VRRP statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline ip vrrp

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ipv6

Description Sets the baseline on general IPv6 traffic statistics as the current value. Use the **udp** keyword to set a baseline for UDP statistics. There is no **no** version.

Syntax baseline ipv6 [udp]

- udp—Sets a baseline for UDP statistics

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ipv6 dhcpv6-local

Description Sets a baseline for DHCPv6 local server statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline ipv6 dhcpv6-local

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Setting Baselines for DHCP Statistics

baseline ipv6 interface

Description Sets a baseline for IPv6 interface statistics. There is no **no** version.

Syntax baseline ipv6 interface *interfaceType interfaceSpecifier*

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ipv6 mld

Description Sets a baseline for MLD statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline ipv6 mld

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ipv6 mld-proxy interface

Description Sets the baseline on all MLD statistics by setting the counters for the numbers of queries received and reports sent on the upstream interface to zero. There is no **no** version.

Syntax baseline ipv6 mld-proxy interface

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ipv6 ospf

Description Sets a baseline for OSPFv3 statistics and counters. There is no **no** version.

Syntax baseline ipv6 ospf [*processId*]

- *processId*—Integer in the range 1–65535

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ipv6 tcp

Description Sets a statistics baseline for only IPv6 TCP statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline ipv6 tcp [vrf *vrfName*] [*localAddress localPort remoteAddress remotePort*]

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *localAddress*—Local IPv6 address on the router
- *localPort*—Local TCP port number on the router
- *remoteAddress*—IPv6 address of remote router
- *remotePort*—TCP port number on remote router

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.
ip keyword removed and **ipv6** keyword added in JUNOSe Release 7.2.0.

baseline line interface sonet

Description Sets a statistics baseline for SONET/SDH statistics at the line layer. The router implements the baseline by reading and storing the MIB statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline line interface sonet *interfaceSpecifier*

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline local pool

Description Sets a statistics baseline for the router local address pool statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline local pool

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline log

Description Sets a baseline for logging events. Only log messages timestamped after the baseline will appear when you enter the **show log data delta** command. To use the current system time, do not enter any options. There is no **no** version.

Syntax baseline log [last-reset | *time* [utc] *month day year*]

- last-reset—Causes the router to display log messages generated since the last time the router was reset
- *time*—Time and date after which the router displays messages that are timestamped. To set the time, use the following syntax: *Hour:Minute[:Second]*—Current time in 24-hour format; seconds are optional
- utc—Indicates that the time entered is UTC (GMT) time; if you do not include this keyword, the router considers the time entered to be local time
- *month*—Name of the month in English
- *day*—Number of the day in the range 1–31
- *year*—Four-digit number of the year

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline mpls interface

Description Sets a statistics baseline for the specified MPLS major interface or MPLS shim interface. By default, the interface counters are baselined at zero. There is no **no** version.

Syntax baseline mpls interface *interfaceName*

- *interfaceName*—Name of interface; up to 15 alphanumeric characters

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.1.0.

Related Topics

- Setting Baselines for Layer 2 Services over MPLS Statistics

baseline mpls label

Description Sets a statistics baseline for the specified MPLS in label. Statistics for an in label must be enabled with the **mpls statistics label** command before they can be baselined. By default, the in-label counters are baselined at zero. There is no **no** version.

Syntax baseline mpls label { interface *interfaceName* atm *vpi vci* | *labelValue* }

- *interfaceName*—Name of interface for label in interface label space on an ATM AAL5 interface; up to 15 alphanumeric characters
- *vpi*—Virtual path identifier for a label, a value in the range 0–255
- *vci*—Virtual circuit identifier for a label, a value in the range 33–65535
- *labelValue*—Integer identifying a label in the platform label space, a value in the range 16–1048575

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.1.0.

baseline mpls next-hop

Description Sets a statistics baseline for the specified MPLS next hop. Statistics for a next hop must be enabled with the **mpls statistics next-hop** command before they can be baselined. By default, the next-hop counters are baselined at zero. There is no **no** version.

Syntax baseline mpls next-hop *nextHopIndex*

- *nextHopIndex*—Number identifying a next hop; displayed by the **show mpls forwarding** command

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.1.0.

baseline mpls tunnel

Description Sets a statistics baseline for the specified MPLS tunnel. Statistics for a tunnel must be enabled with the **mpls statistics policy** command before they can be baselined. By default, the next-hop counters are baselined at zero. There is no **no** version.

Syntax baseline mpls tunnel *tunnelName*

- *tunnelName*—Name identifying a tunnel; displayed by the **show mpls tunnels** command

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.1.0.

baseline path interface sonet

Description Sets a statistics baseline for SONET/SDH statistics at the path layer. The router implements the baseline by reading and storing the MIB statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline path interface sonet *interfaceSpecifier*

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline ppp interface

Description Sets a statistics baseline for PPP interfaces. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline ppp interface { atm | mlppp | pos | serial } *interfaceSpecifier*

- atm—Specifies an ATM interface
- mlppp—Specifies an MLPPP interface
- pos—Specifies a POS interface
- serial—Specifies a serial interface
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline pppoe interface

Description Sets a statistics baseline for PPPoE interfaces, subinterfaces, and/or circuits. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline pppoe interface *interfaceType interfaceSpecifier*

- *interfaceType*—One of the following interface types listed in *Interface Types and Specifiers* in *About This Guide*:
  - atm
  - fastEthernet
  - gigabitEthernet
  - lag
  - serial—PPPoE is not currently supported on serial interfaces
  - tenGigabitEthernet
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline radius

Description Sets a statistics baseline for RADIUS statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline radius

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline radius dynamic-request

Description Sets a statistics baseline for RADIUS dynamic-request statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline radius dynamic-request

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Monitoring Packet Mirroring Overview

baseline radius relay

Description Sets a baseline for RADIUS relay statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline radius relay

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline section interface sonet

Description Sets a statistics baseline for SONET/SDH statistics at the section layer. The router implements the baseline by reading and storing the MIB statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline section interface sonet *interfaceSpecifier*

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline show-delta-counts

Description Configures the router to always display the statistics relative to the most recent appropriate baseline. The **no** version removes the configuration.

Syntax [no] baseline show-delta-counts

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline snmp

Description Sets a baseline for SNMP statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline snmp

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline sscc

Description Sets a baseline for the SRC statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline sscc

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.1.0.

baseline suspicious-control-flow-detection counts

Description Sets a baseline for statistics for suspicious control flow detection. There is no **no** version.

Syntax baseline suspicious-control-flow-detection counts

Mode Privileged Exec, User Exec

Release Information Command introduced in JUNOSe Release 7.3.0.

baseline tacacs

Description Sets a baseline for TACACS+ statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline tacacs

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

baseline tcp

Description Sets a baseline for all TCP statistics or for only IPv4 or IPv6 TCP statistics. The router implements the baseline by reading and storing the statistics at the time the baseline is set and then subtracting this baseline whenever baseline-relative statistics are retrieved. There is no **no** version.

Syntax baseline [ip | ipv6] tcp [vrf *vrfName*] [*localAddress localPort remoteAddress remotePort*]

- ip—Implements a baseline for only IPv4 statistics
- ipv6—Implement a baseline for only IPv6 statistics
- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *localAddress*—Local IP or IPv6 address on the router
- *localPort*—Local TCP port number on the router
- *remoteAddress*—IP or IPv6 address of remote router
- *remotePort*—TCP port number on remote router

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.2.0.
ip keyword made optional in JUNOSe Release 7.2.0.
ipv6 keyword added in JUNOSe Release 7.2.0.

bert

Description Enables bit error rate tests using the specified pattern on T3 interfaces on channelized and unchannelized T3 modules. The **no** version stops the test that is running.

NOTE: The BERT patterns supported can vary depending on the line module and I/O module assembly you are using.

Syntax bert pattern *pattern* interval *time* [unframed]

no bert

- *pattern*—One of the following test patterns:
  - 0s—Repetitive test pattern of all zeros, 00000...
  - 1s—Repetitive test pattern of all ones, 11111...
  - 2^9—Pseudorandom test pattern, 511 bits in length
  - 2^11—Pseudorandom test pattern, 2047 bits in length
  - 2^15—Pseudorandom test pattern, 32,767 bits in length
  - 2^20-O153—Pseudorandom test pattern, 1,048,575 bits in length
  - 2^20-QRSS—Pseudorandom QRSS test pattern, 1,048,575 bits in length
  - 2^23—Pseudorandom test pattern, 8,388,607 bits in length
  - alt-0-1—Repetitive alternating test pattern of zeros and ones, 01010101...
- *time*—Duration of the test in the range 1–1440 minutes
- unframed—(available for E1 and T1 interfaces only) if specified, the test bit pattern occupies all bits on the link, overwriting the framing bits; if not specified, the test bit pattern occupies only the payload bits

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bfd adapt

Description Enables all BFD sessions to adapt timer intervals on all virtual routers on the router. The **no** version disables subsequent BFD sessions from adapting timer intervals without resetting any already adapted intervals.

Syntax [no] bfd adapt

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

bgp advertise-best-external-to-internal

Description Causes the BGP selection process to select two best routes to every destination. BGP advertises to external peers the best route selected from the complete set of routes known to that destination. BGP advertises to internal peers the best route from the set of routes received from external and confederation peers. The **no** version restores the default condition, wherein BGP selects only one best route for each destination from the complete set of routes; if the best route was received from an internal peer, BGP does not advertise any route to that destination to the internal peers.

Syntax [no] bgp advertise-best-external-to-internal

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp advertise-inactive

Description Enables the advertisement of inactive BGP received routes—routes that are considered by BGP to be "best routes" and therefore are present in the IP forwarding table, but that are *not* being used for forwarding. The **no** version restores the default state of normal route advertisement, whereby BGP advertises received routes only if they are in the IP forwarding table and are being used to forward traffic, or if synchronization is enabled.

Syntax [no] bgp advertise-inactive

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp always-compare-med

Description Enables the comparison of the MED for paths from neighbors in different ASs. The **no** version disables the feature.

Syntax [no] bgp always-compare-med

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp bestpath med confed

Description Specifies that BGP considers the MED when comparing routes originated from different sub-ASs within the confederation to which this BGP speaker belongs. The **no** version restores the default state, where the MED attribute is not considered.

Syntax [no] bgp bestpath med confed

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp bestpath missing-as-worst

Description Specifies that a route with a MED is always considered to be better than a route without a MED by causing the missing MED attribute to have a value of infinity. The **no** version restores the default state, where the missing MED attribute is considered to have a value of zero.

Syntax [no] bgp bestpath missing-as-worst

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp client-to-client reflection

Description Restores route reflection from a BGP route reflector to clients. The **no** version disables client-to-client reflection. By default, BGP reflects routes received from any route reflector client to all other route reflector clients. This command can be used to disable or restore this behavior.

Syntax [no] bgp client-to-client reflection

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp cluster-id

Description Configures a cluster ID if the BGP cluster has more than one route reflector. The **no** version causes BGP to use the router ID as the cluster ID.

Syntax bgp cluster-id { *clusterId* | *ipAddress* }

no bgp cluster-id [*clusterId* | *ipAddress*]

- *clusterId*—Number in the range 0–4294967295; the cluster ID of this router acting as a route reflector
- *ipAddress*—Cluster ID of this router acting as a route reflector specified as an IP address

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp confederation identifier

Description Configures a BGP confederation identifier. The **no** version removes a BGP confederation identifier.

Syntax bgp confederation identifier *autonomousSystem*

no bgp confederation identifier [*autonomousSystem*]

- *autonomousSystem*—Number in the range 1–4294967295; the confederation identifier

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp confederation peers

Description Specifies the sub-ASs that belong to a confederation by listing individual AS numbers or by reference to an AS-path access list (the filter list). If the remote AS of a peer appears in the list of sub-AS numbers or in the filter list, then the peer is considered to be in the same confederation. The **no** version removes individually specified sub-ASs, all sub-ASs specified by the filter list, or all sub-ASs from the confederation.

Syntax bgp confederation peers { *autonomousSystem* [*autonomousSystem*]* | filter-list *filterListName* }

no bgp confederation peers [*autonomousSystem* [*autonomousSystem*]* | filter-list *filterListName*]

- *autonomousSystem*—AS number in the range 1– 4294967295
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line
- *filterListName*—Name of an AS-path access list; a string of up to 32 characters

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp dampening

Description Enables BGP route dampening. The router assesses a penalty of 1000 each time a route flaps and adds this to any previously accumulated penalty value. Penalties are cumulative. The **no** version disables route flap dampening.

Syntax [no] bgp dampening [*halfLife* [*reuse suppress maxSuppressTime* [*halfLifeUnreachable*]]] [route-map *mapTag*]

- *halfLife*—Half-life period in minutes in the range 1–45; default value is 15. When a BGP route has been assigned a penalty, the penalty is decreased by half after the half-life period.
- *reuse*—Reuse limit in the range 1–20000; default value is 750. As the penalty for a flapping route decreases and falls below this reuse limit, the route is unsuppressed. That is, the route is added back to the BGP table and used for forwarding.
- *suppress*—Suppress limit in the range 1–20000; default value is 2000. A route is suppressed when its penalty exceeds this limit.
- *maxSuppressTime*—Maximum suppression time in minutes in the range 1–255. This value is the maximum amount of time a route can be suppressed. The default value is four times the half-life value.
- *halfLifeUnreachable*—Alternate half-life period in minutes for unreachable routes; a number in the range 1–45. If this value is not specified, the same half-life period is used for both reachable and unreachable routes.
- route-map—Specifies that dampening can be applied to routes according to the route map behavior. If the route map *permits* a route, the route is subject to dampening. If the route map *denies* a route, the route is not subject to dampening. The route map can contain a *no dampening* clause that determines dampening characteristics.
- *mapTag*—Name of the route map; a string of up to 32 alphanumeric characters.

Mode Address Family Configuration, Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp default ipv4-unicast

Description Causes all neighbors subsequently created with the **neighbor remote-as** or **neighbor peer-group** commands to be automatically activated in the IPv4 unicast address family. The **no** version disables the IPv4 unicast address family on all neighbors.

Syntax [no] bgp default ipv4-unicast

Mode Address Family Configuration, Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp default local-preference

Description Changes the default local preference value. Generally, the default value of 100 allows you to easily define a particular path as less preferable than paths with no local preference attribute. The preference is sent to all routers in the local AS. The preferred path is the one with the highest preference value. The **no** version restores the default setting.

Syntax bgp default local-preference *value*

no bgp default local-preference [*value*]

- *value*—Local preference number in the range 0–4294967295

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp default route-target filter

Description Controls whether incoming BGP routes are filtered according to membership in route-target communities. Automatic filtering is enabled by default. The **no** version disables automatic filtering.

Syntax [no] bgp default route-target filter

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp enforce-first-as

Description Forces BGP to compare the configured remote AS number of an external peer with the first AS in the AS path of routes received from the peer. If the AS numbers do not match, BGP sends the peer an error message. The **no** version restores the default condition, which does not perform the AS comparison.

Syntax [no] bgp enforce-first-as

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp fast-external-fallover

Description Automatically brings down a BGP session to any adjacent external peer immediately after the link fails (as opposed to waiting for the TCP connection to fail or the hold timer to expire). The **no** version disables automatic session termination.

Syntax [no] bgp fast-external-fallover

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp graceful-restart

Description Enables the BGP graceful restart capability globally, which enables BGP to maintain its forwarding state during a peer restart, avoiding network-wide route flaps and interruptions in traffic forwarding. Graceful restart is enabled by default. The **default** version restores the default condition, wherein graceful restart is enabled. The **no** version disables the graceful restart capability.

NOTE: The E-series router currently supports graceful restart only as a receiving peer, not as a restarting peer.

Syntax [no | default] bgp graceful-restart

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp graceful-restart path-selection-defer-time-limit

Description Sets the maximum time period after a peer session restart during which the best-path selection process is deferred. The period is measured from when the session is detected in a down state. The **no** version restores the default value, 360 seconds.

Syntax bgp graceful-restart path-selection-defer-time-limit *seconds*

no bgp graceful-restart path-selection-defer-time-limit [*seconds*]

- *seconds*—Integer in the range 1–3600; default value is 600 seconds

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp graceful-restart restart-time

Description Sets the time period advertised to all peers during which a restart is expected to be complete on this BGP speaker. If the speaker does not reestablish peering sessions within this period, the peers flush all routes from this speaker that they marked as stale when the speaker restarted and the sessions went down. The **no** version restores the default value, 120 seconds.

Syntax bgp graceful-restart restart-time *seconds*

no bgp graceful-restart restart-time [*seconds*]

- *seconds*—Integer in the range 1–3600; default value is 120 seconds

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp graceful-restart stalepaths-time

Description Sets the time period after a peer session restart for all peers during which BGP waits for an End-of-RIB marker from a peer before flushing all stale routes from that peer. The period is measured from when the session is detected in a down state. The **no** version restores the default value, 360 seconds.

Syntax bgp graceful-restart stalepaths-time *seconds*

no bgp graceful-restart stalepaths-time [*seconds*]

- *seconds*—Integer in the range 1–3600; default value is 360 seconds

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp log-neighbor-changes

Description Causes BGP to log a message of severity notice to the bgpNeighborChanges log whenever a peer enters or leaves the Established state for any reason. No other messages are logged to the bgpNeighborChanges log. The **no** version disables this log.

Syntax [no] bgp log-neighbor-changes

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp maxas-limit

Description Causes BGP to check the length of AS paths received in update messages and to not forward routes whose AS paths are greater than the specified length. The **no** version halts checking of the AS path length.

Syntax bgp maxas-limit *limit*

no bgp maxas-limit [*limit*]

- *limit*—Maximum acceptable length of a received AS path; number in the range 1–1000

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp redistribute-internal

Description Authorizes redistribution of internal BGP routes (in addition to external BGP routes) into protocols that have BGP route redistribution enabled. This command is not required for IBGP routes within a VRF, for which redistribution is always enabled. The **no** version restores the default, redistributing only external BGP routes.

Syntax [no] bgp redistribute-internal

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp router-id

Description Sets the BGP identifier. The **no** version restores the router ID as the identifier.

Syntax bgp router-id *ipAddress*

no bgp router-id [*ipAddress*]

- *ipAddress*—IP address to be used as the BGP identifier; ignored if present in the **no** version

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp shutdown

Description Administratively disables BGP. The **no** version reenables BGP.

Syntax [no] bgp shutdown

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bgp wait-on-end-of-rib

Description Specifies how long BGP waits to receive an End-of-RIB marker sent by route-target address family peers to signal the peer has finished advertising route-target membership information. Applies to all peers in the route-target address family. The **no** version restores the default value.

Syntax bgp wait-on-end-of-rib *seconds*

no bgp wait-on-end-of-rib

- *seconds*—Number of seconds BGP wait for End-of-RIB marker, in the range 1–3600; default is 60 seconds

Mode Address Family Configuration, Router Configuration

Release Information Command introduced in JUNOSe Release 8.2.0.

boolean-test

Description Defines Boolean test values for the trigger that you are configuring, including comparison settings, a Boolean value, a startup condition, and binding an event to the boolean-test trigger. The **no** version deletes the Boolean-test values for this trigger or removes either the startup condition or event binding.

Syntax boolean-test { comparison *comparisonType* | event *eventOwner eventName* | startup | value *booleanValue* }

no boolean-test [comparison | event | startup | value]

- *comparisonType*—One of the following types of Boolean comparison to perform: (equal, greater, greaterOrEqual, less, lessOrEqual, unequal
- *eventOwner*—Name of event owner that partially specifies event to trigger the Boolean test; string of up to 32 alphanumeric characters
- *eventName*—Name of event that partially specifies event to trigger the Boolean test; string of up to 32 alphanumeric characters
- startup—Specifies not to perform the Boolean comparison when this trigger first becomes active
- *booleanValue*—Value in the range -2147483648–2147483647 to use for the Boolean test

Mode SNMP Trigger Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

boot backup

Description Sets the release and the configuration to be used the next (and every subsequent) time the boot logic chooses backup mode. The **no** version removes the setting.

Syntax boot backup *relFilename* { *cnfFilename* | *scrFilename* | factory-defaults }

no boot backup

- *relFilename*—System software file
- *cnfFilename*—Name of an existing configuration file (.cnf)
- *scrFilename*—Name of an existing script file (.scr)
- factory-defaults—Specifies that the router reverts to factory default configuration when rebooted

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

boot config

Description Specifies how the router obtains its startup configuration. The **no** version clears a previous request to reboot in a specified manner; the next reboot uses the configuration saved in nonvolatile storage.

CAUTION: All **boot config** commands except for **boot config running-configuration** and **boot config startup-configuration** erase the existing running configuration when you reboot the router. Before executing this command, you might want to save the current configuration to a .cnf file using the **copy running-configuration** command.

Syntax boot config { *cnfFilename* [once] | *scrFilename* | running-configuration | startup-configuration | factory-defaults }

no boot config

- *cnfFilename*—Name of an existing startup configuration file (.cnf) to be used on all subsequent reboots
- once—Restores a configuration from the specified configuration file only on the next reboot. Subsequent reboots revert to the running-configuration settings.
- *scrFilename*—Name of an existing script file (.scr)
- running-configuration—Specifies that the running configuration is to be used for reboot; only available if the router is in Automatic Commit mode
- startup-configuration—Specifies that the running configuration is to be used for reboot; only available if the router is in Manual Commit mode
- factory-defaults—Specifies that the factory default configuration is to be used for the next reboot. Subsequent reboots revert to the running-configuration settings.

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

boot force-backup

Description Forces the router to use the backup software release file or router configuration file on the next boot. The **no** version sets the router to use the default release or configuration file on the next boot.

NOTE: After the router has used the backup settings, the **no boot force-backup** command is the only way to get the router to use the default settings again.

Syntax [no] boot force-backup

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

boot hotfix

Description Arms the specified hotfix as a startup hotfix that is automatically activated during system initialization when the SRP module is reloaded. The **no** version disarms the specified armed hotfix or all armed hotfixes.

NOTE: See also the **no boot hotfix all-releases** command.

Syntax boot hotfix *hfixFilename*

no boot hotfix { *hfixFilename* | all-releases }

- *hfixFileName*—Name of a hotfix software file (.hfx) on the local file system
- all-releases—Disarms all hotfixes currently armed for the armed release

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

boot revert-tolerance

Description Sets the reversion tolerances that the boot logic uses to determine whether the router should use the normal or backup settings. Issuing this command when high availability is enabled results in the system cold-restarting the router and using the backup settings if the tolerance settings are met. The **no** version restores the default reversion tolerance settings. The default settings are 3 crashes in 30 minutes.

Syntax boot revert-tolerance *count time*

no boot revert-tolerance

- *count*—Number of times the operational SRP software crashes; in the range 0–4294967295; default value is 3
- *time*—Time in the range 0–4294967295 seconds in which the set number (*count*) of crashes occurs; the default setting is 1800

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

boot revert-tolerance never

Description Sets the boot logic to never revert to the backup release or configuration. There is no **no** version.

Syntax boot revert-tolerance never

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

boot subsystem

Description Configures the selected subsystem to use the specified release the next time the subsystem is booted. The **no** version disables the subsystem. The **backup** option enables you to specify a backup release for the module in the specified slot in case the module reboots more times than allowed within the period specified by the **boot revert-tolerance** command.

Syntax boot [backup] subsystem *subsysName relFileName*

no boot [backup] subsystem [*subsysName*]

- backup—Configures a backup setting
- *subsysName*—Name of the subsystem to be configured
- *relFileName*—Name of system software file to use

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

boot system

Description Specifies the software release (.rel) file to use on reboot. There is no **no** version.

NOTE: In a dual SRP module configuration, when this information is synchronized to the standby SRP module, the standby SRP module is reloaded to boot the specified release. The high availability feature requires the release to be the same on the active and the standby SRP modules. This means that arming the system to boot with a different release causes the standby module to reload and prevent high availability from becoming active or to disable high availability if it is active or pending.

Syntax boot system *relFileName*

- *relFileName*—Name of the software release file (.rel) that contains the software release

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bridge1483 dos-protection-group

Description Attaches a bridge 1483 denial of service (DoS) protection group to an interface. The **no** version removes the attachment of the DoS protection group from the interface.

Syntax bridge1483 dos-protection-group *groupName*

no bridge1483 dos-protection-group

- *groupName*—Name of the DoS protection group; string of up to 31 alphanumeric characters

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

bridge1483 mtu

Description Sets the maximum allowable size, in bytes, of the maximum transmission unit (MTU) for bridged Ethernet interfaces. The **no** version restores the default MTU size for bridged Ethernet interfaces, 1518 bytes.

Syntax bridge1483 mtu *mtuSize*

no bridge1483 mtu

- *mtuSize*—Maximum allowable size of the MTU, in the range 64–9180 bytes; default value is 1518

Mode Profile Configuration, Subinterface Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

bridge1483 service-profile

Description Assigns the specified IP service profile to the interface profile from which a dynamic bridged Ethernet interface is created. The IP service profile must be defined in the default virtual router. The **no** version removes the IP service profile assignment from the interface profile.

Syntax [no] bridge1483 service-profile *profileName*

- *profileName*—Name of the IP service profile; maximum of 32 alphanumeric characters

Mode Profile Configuration

Release Information Command introduced in JUNOSe Release 9.0.0.

bridge

Description Creates a bridge group to use for transparent bridging. A bridge group is a named collection of network interfaces (ports) on an E-series router that forms a broadcast domain. Each bridge group has its own set of forwarding tables and filters and, as such, functions as a logical bridging device. The **no** version removes the bridge group configuration from the router.

To configure an existing bridge group as a VPLS instance, you must use the **bridge vpls transport-virtual-router** command.

NOTE: Do not assign the bridge group the same name as an existing virtual router configured on the router.

Syntax [no] bridge *bridgeGroupName*

- *bridgeGroupName*—Name of the bridge group; string of up to 32 alphanumeric characters

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bridge acquire

Description Configures a bridge group or VPLS instance to acquire dynamically learned MAC addresses. Issuing this command enables the router to forward any frames it receives for nodes (stations) whose addresses it has learned dynamically. The **no** version prevents the router from acquiring dynamically learned MAC addresses, and limits forwarding only to those nodes that have a statically configured address entry in the forwarding table.

To configure the maximum number of MAC addresses that the router can learn, use the **bridge learn** command (for a bridge group or VPLS instance) or the **bridge-group learn** command (for a network interface associated with a bridge group or VPLS instance).

Syntax [no] bridge { *bridgeGroupName* | *vplsName* } acquire

- *bridgeGroupName*—Name of a bridge group specified with the **bridge** command
- *vplsName*—Name of a VPLS instance created with the **bridge vpls transport-virtual-router** command

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
vplsName variable added in JUNOSe Release 7.1.0.

bridge address

Description Enables a bridge group or VPLS instance to filter (forward or discard) frames based on their MAC address. Use this command to filter frames by a specific MAC address and to add a static (nonlearned) entry to the forwarding table. The **no** version removes the static MAC address entry from the forwarding table.

NOTE: For a VPLS instance, you cannot create a static (nonlearned) MAC address entry to forward to the VPLS virtual core interface.

Syntax bridge { *bridgeGroupName* | *vplsName* } address *macAddress* { forward *interfaceType interfaceSpecifier* | discard }

no bridge { *bridgeGroupName* | *vplsName* } address *macAddress*

- *bridgeGroupName*—Name of a bridge group specified with the **bridge** command
- *vplsName*—Name of a VPLS instance created with the **bridge vpls transport-virtual-router** command
- *macAddress*—Unique 48-bit (6-byte) number that is programmed into each LAN network interface card (NIC) at the time of manufacture; also known as a hardware address or physical address. The MAC address format is a dotted triple of four-digit hexadecimal numbers; for example, 0090.1a40.4c7c
- forward—Forwards frames destined for the specified MAC address out the specified network interface
- *interfaceType*—One of the following interface types listed in *Interface Types and Specifiers* in *About This Guide*:
  - atm
  - fastEthernet
  - gigabitEthernet
  - tenGigabitEthernet
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- discard—Discards (drops) frames sent from or destined for the specified MAC address without further processing

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
vplsName variable added in JUNOSe Release 7.1.0.

bridge aging-time

Description Sets the aging time of a dynamic (learned) entry in the forwarding table of a bridge group or VPLS instance. The aging time is the length of time, in seconds, that an entry can remain in the forwarding table. An entry expires from the forwarding table when it reaches the specified aging time. The **no** version restores the default value, 300 seconds.

Syntax bridge { *bridgeGroupName* | *vplsName* } aging-time *seconds*

no bridge { *bridgeGroupName* | *vplsName* } aging-time

- *bridgeGroupName*—Name of a bridge group specified with the **bridge** command
- *vplsName*—Name of a VPLS instance created with the **bridge vpls transport-virtual-router** command
- *seconds*—Aging time in the range 10–1000000 seconds

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
vplsName variable added in JUNOSe Release 7.1.0.

bridge crb

Description Enables concurrent routing and bridging (CRB) for all bridge groups configured on the router except those bridge groups configured as VPLS instances. When CRB is enabled, the router can route a protocol among a group of interfaces in one bridge group and concurrently bridge the same protocol among a separate group of interfaces in a different bridge group on the router. The **no** version disables CRB on all bridge groups and restores the default bridging capability.

The command takes effect for all bridge groups on the router not configured as VPLS instances; you cannot enable CRB for some bridge groups but not for others.

Syntax [no] bridge crb

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bridge-group

Description Assigns a network interface to a bridge group or VPLS instance. You can also use this command to configure the type of interface, enable SNMP link-status processing for the interface, and set the maximum number of dynamic MAC addresses that the interface can learn. The **no** version removes the network interface from the bridge group or VPLS instance and restores the default values for the interface type (subscriber client interface), SNMP link-status processing (disabled), or number of maximum learned MAC addresses (0 addresses).

Syntax bridge-group { *bridgeGroupName* | *vplsName* }
[subscriber-trunk | snmp-trap link-status | learn *addressCount*]

no bridge-group { *bridgeGroupName* | *vplsName* } [subscriber-trunk | snmp-trap link-status | learn]

- *bridgeGroupName*—Name of the bridge group to which the interface belongs, as specified with the **bridge** command
- *vplsName*—Name of the VPLS instance to which the interface belongs, as specified with the **bridge vpls transport-virtual-router** command
- subscriber-trunk—Creates a trunk (server) interface in the bridge group or VPLS instance; if you omit this keyword, the router creates a subscriber (client) interface by default
- snmp-trap link-status—Enables SNMP link-status processing only for the specified interface in the bridge group or VPLS instance
- *addressCount*—Maximum number of MAC addresses that the interface in the bridge group or VPLS instance can learn, up to the maximum number that the router supports, in the range 0–64000

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
vplsName variable added in JUNOSe Release 7.1.0.

bridge learn

Description Sets the maximum number of dynamic MAC addresses that a bridge group or VPLS instance can learn. The **no** version restores the default value, 0 (zero) learned addresses. The default value implies that there is no maximum number of learned entries for an individual bridge group or VPLS instance; that is, a bridge group or VPLS instance can learn an unlimited number of MAC addresses, up to the maximum number that the router supports.

To enable or disable the ability of a bridge group or VPLS instance to learn dynamic MAC addresses, use the **bridge acquire** command.

NOTE: For information about the maximum number of learned MAC address entries combined for all bridge groups and VPLS instances supported per chassis, see *JUNOSe Release Notes*, *Appendix A*, *System Maximums*.

Syntax bridge { *bridgeGroupName* | *vplsName* } learn *addressCount*

no bridge { *bridgeGroupName* | *vplsName* } learn

- *bridgeGroupName*—Name of a bridge group specified with the **bridge** command
- *vplsName*—Name of a VPLS instance created with the **bridge vpls transport-virtual-router** command
- *addressCount*—Maximum number of MAC addresses that the bridge group can learn, in the range 0–64000

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
vplsName variable added in JUNOSe Release 7.1.0.

bridge route

Description Enables routing of IP, MPLS, or PPPoE packets in a specified bridge group when concurrent routing and bridging (CRB) is enabled for all bridge groups on the router. The command uses the routing table entries to determine the path on which to send the packet toward its final destination. The **no** version disables routing of the specified protocol in the specified bridge group.

If you issue this command for a protocol that is not currently configured in the interface stack for that bridge group, the bridge group discards (drops) those packets.

NOTE: The **bridge route** command is available for a bridge group only after you issue the **bridge crb** command to enable CRB for all bridge groups on the router.

NOTE: The **bridge route** command is not valid for bridge groups configured as VPLS instances. If you attempt to issue the **bridge route** command for a VPLS instance, the router displays an error message and rejects the command.

Syntax [no] bridge *bridgeGroupName* route { ip | mpls | pppoe }

- *bridgeGroupName*—Name of a bridge group specified with the **bridge** command
- ip—Specifies that the bridge group routes IP packets
- mpls—Specifies that the bridge group routes MPLS packets
- pppoe—Specifies that the bridge group routes PPPoE packets

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bridge snmp-trap link-status

Description Enables SNMP link-status processing for all network interfaces associated with a bridge group or VPLS instance. The **no** version disables SNMP link-status processing for all interfaces in the bridge group or VPLS instance.

Syntax [no] bridge { *bridgeGroupName* | *vplsName* } snmp-trap link-status

- *bridgeGroupName*—Name of a bridge group specified with the **bridge** command
- *vplsName*—Name of a VPLS instance created with the **bridge vpls transport-virtual-router** command

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
vplsName variable added in JUNOSe Release 7.1.0.

bridge subscriber-policy

Description Associates the subscriber (client) interfaces that belong to a bridge group or to a VPLS instance with a nondefault subscriber policy. The **no** version removes the association with the subscriber policy.

You cannot associate a nondefault subscriber policy with trunk (server) interfaces that belong to a bridge group or to a VPLS instance. You also cannot associate a nondefault subscriber policy with the VPLS virtual core interface, which acts as a trunk interface. The VPLS virtual core interface represents all of the MPLS tunnels from the router to the remote VPLS edge (VE) devices.

Syntax bridge { *bridgeGroupName* | *vplsName* } subscriber-policy *subscriberPolicyName*

no bridge { *bridgeGroupName* | *vplsName* } subscriber-policy [*subscriberPolicyName*]

- *bridgeGroupName*—Name of a bridge group specified with the **bridge** command
- *vplsName*—Name of a VPLS instance created with the **bridge vpls transport-virtual-router** command
- *subscriberPolicyName*—Name of the subscriber policy specified with the **subscriber-policy** command

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
vplsName variable added in JUNOSe Release 7.1.0.

bridge vpls rd

Description Specifies the unique two-part route distinguisher for a VPLS instance that uses BGP as the signaling protocol. Because you cannot change or remove the route distinguisher for a VPLS instance after you set it, issuing the **no** version fails, and causes the router to display an error message.

The following rules apply when you configure the route distinguisher for a VPLS instance:

- After you set the route distinguisher for a VPLS instance, you cannot change it for that VPLS instance. To change the route distinguisher, you must either remove the transport virtual router configuration from the VPLS instance or delete the VPLS instance from the router. You can then reconfigure the VPLS instance with a new route distinguisher.
- Multiple VPLS instances that use the same transport virtual router cannot have the same route distinguisher. Conversely, multiple VPLS instances that use different transport virtual routers can have the same route distinguisher.

The **bridge vpls rd** command is not valid for a VPLS instance that uses LDP as the signaling protocol. To configure a VPLS instance with LDP signaling, use the **mpls ldp vpls vpls-id** command and the **mpls ldp vpls neighbor** command.

NOTE: The **bridge vpls rd** command is available for a VPLS instance only after you issue the **bridge vpls transport-virtual-router** command, which creates the VPLS instance and configures the transport virtual router.

Syntax bridge *vplsName* vpls rd *routeDistinguisher*

no bridge *vplsName* vpls rd

- *vplsName*—Name of a VPLS instance created with the **bridge vpls transport-virtual-router** command
- *routeDistinguisher*—Unique two-part identifier in the format *number1*:*number2*, where:
  - *number1*—Autonomous system (AS) number or an IP address
  - *number2*—Unique integer; 32 bits if *number1* is an AS number; 16 bits if *number1* is an IP address

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

bridge vpls route-target

Description Creates or adds to a list of VPN extended communities that the router uses to determine which routes are imported by a VPLS instance that uses BGP as the signaling protocol. The **no** version removes a route target from the specified list.

A route is imported into the BGP address family for a specified VPLS instance when both of the following conditions are met:

- An update message with a route-target export list advertises a route.
- That list contains at least one route target that matches a route target in the route-target import list associated with a VPLS instance.

The **bridge vpls route-target** command is not valid for a VPLS instance that uses LDP as the signaling protocol. To configure a VPLS instance with LDP signaling, use the **mpls ldp vpls vpls-id** command and the **mpls ldp vpls neighbor** command.

NOTE: The **bridge vpls route-target** command is available for a VPLS instance only after you issue the **bridge vpls transport-virtual-router** command, which creates the VPLS instance and configures the transport virtual router.

Syntax [no] bridge *vplsName* vpls route-target { import | export | both } *extendedCommunity*

- *vplsName*—Name of a VPLS instance created with the **bridge vpls transport-virtual-router** command
- import—Adds the route target to the specified VPLS instance's import list; the VPLS instance accepts only routes that have at least one route target that matches a route target in the import list
- export—Adds the route target to the specified VPLS instance's export list; all routes advertised from this VPLS instance are associated with the export list
- both—Adds the route target to both the import list and export list of the specified VPLS instance. This is the recommended setting for a VPLS instance
- *extendedCommunity*—Two-part number in the format *number1*:*number2* that identifies an extended community of VPNs, where:
  - *number1*—Autonomous system (AS) number or an IP address
  - *number2*—Unique integer; 32 bits if *number1* is an AS number; 16 bits if *number1* is an IP address

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

bridge vpls site-name site-id

Description Configures a customer site name and a unique site identifier that belongs to the specified VPLS instance that uses BGP as the signaling protocol. In a VPLS configuration, each customer site is represented by a customer edge (CE) device located at the edge of the customer's network. The router (VPLS edge device) communicates with the customer site by means of a bridge network interface connection to the CE device. The **no** version removes the site name and site identifier from the VPLS instance.

The **bridge vpls site-name site-id** command is not valid for a VPLS instance that uses LDP as the signaling protocol. To configure a VPLS instance with LDP signaling, use the **mpls ldp vpls vpls-id** command and the **mpls ldp vpls neighbor** command.

NOTE: The **bridge vpls site-name site-id** command is available for a VPLS instance only after you issue the **bridge vpls transport-virtual-router** command, which creates the VPLS instance and configures the transport virtual router.

Syntax bridge *vplsName* vpls site-name *siteName* site-id *siteId*

no bridge *vplsName* vpls site-name

- *vplsName*—Name of a VPLS instance created with the **bridge vpls transport-virtual-router** command
- *siteName*—Name of the site; string of up to 128 alphanumeric characters
- *siteId*—Numerical identifier for the site; must be an unsigned 16-bit integer greater than zero that is unique across the VPLS domain

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

bridge vpls site-range

Description Configures the maximum number of customer sites that can participate in the specified VPLS domain that uses BGP as the signaling protocol. In a VPLS configuration, each customer site is represented by a customer edge (CE) device located at the edge of the customer's network. The router (VPLS edge device) communicates with the customer site by means of a bridge network interface connection to the CE device. The **no** version restores the default site range, 1.

The **bridge vpls site-range** command is not valid for a VPLS instance that uses LDP as the signaling protocol. To configure a VPLS instance with LDP signaling, use the **mpls ldp vpls vpls-id** command and the **mpls ldp vpls neighbor** command.

NOTE: The **bridge vpls site-range** command is available for a VPLS instance only after you issue the **bridge vpls transport-virtual-router** command, which creates the VPLS instance and configures the transport virtual router.

Syntax bridge *vplsName* vpls site-range *siteRange*

no bridge *vplsName* vpls site-range

- *vplsName*—Name of a VPLS instance created with the **bridge vpls transport-virtual-router** command
- *siteRange*—Maximum number of sites that can participate in the VPLS domain, in the range 1–65534; default value is 1

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

bridge vpls transport-virtual-router

Description Configures the transport virtual router for a VPLS instance that uses either BGP or LDP as the signaling protocol. Issuing this command creates a new VPLS instance on the router or causes an existing bridge group to become a VPLS instance. The **no** version removes the VPLS instance from the router and clears any attributes configured for the deleted VPLS instance.

A VPLS instance is a single instance of the virtual private LAN service (VPLS). VPLS employs a layer 2 virtual private network (VPN) to connect multiple individual LANs across a service provider's MPLS network. The multiple LANs function as a single virtual LAN.

The transport virtual router specifies the name of the virtual router on which the BGP or LDP instance that signals reachability for this VPLS instance is configured.

To create a new VPLS instance or configure an existing bridge group as a VPLS instance, you must issue the **bridge vpls transport-virtual-router** command before you issue any other commands to configure VPLS attributes; otherwise, the VPLS configuration fails.

Syntax bridge *vplsName* vpls transport-virtual-router *virtualRouterName*

no bridge *vplsName* vpls transport-virtual-router

- *vplsName*—Name of the new VPLS instance, or name of an existing bridge group specified with the **bridge** command that you want to configure as a VPLS instance; string of up to 32 alphanumeric characters
- *virtualRouterName*—Name of the virtual router on which the BGP or LDP instance that signals reachability for this VPLS instance is configured

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

broadcast

Description Modifies the subscriber policy for the broadcast protocol to define whether the subscriber (client) interfaces that belongs to a bridge group or to a VPLS instance forward (permit) or filter (deny) broadcast packets. The **no** version restores the default value, deny broadcast packets.

You cannot change the default subscriber policy values for trunk (server) interfaces that belongs to a bridge group or to a VPLS interface. You also cannot change the default subscriber policy values for a VPLS virtual core interface, which acts as a trunk interface. The VPLS virtual core interface represents all of the MPLS tunnels from the router to the remote VPLS edge (VE) device.

Syntax broadcast { permit | deny }

no broadcast

- permit—Specifies that the subscriber interface associated with the bridge group or VPLS instance forwards broadcast packets
- deny—Specifies that the subscriber interface associated with the bridge group or VPLS instance filters broadcast packets

Mode Subscriber Policy Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

buffer-weight

Description Sets the buffer weight of the queue. The **no** version returns the queue to its default buffer weight.

Syntax buffer-weight *bufferWeight*

no buffer-weight

- *bufferWeight*—Range 1–63; default value is 8

Mode Queue Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring Queue Profiles to Manage Buffers and Thresholds

bulkstats

Description This command has only a **no** version. See the **no bulkstats** command for a complete description and syntax.

bulkstats collector

Description Creates and configures a collector of bulk statistical data to collect MIB-2 ifTable MIB objects. You can configure up to six collectors. The **no** version restores the default value for specified options; if no options are specified, the **no** version deletes the collector.

Syntax bulkstats collector *collectorIndex*
[collect-mode { auto-xfer | on-file-full | manual-xfer } | description *descrip* | interval *intrvl* | max-size *maxSize* | primary-receiver *primRecvIndex* | secondary-receiver *secRecvIndex* | single-interval]

no bulkstats collector *collectorIndex* [collect-mode | description | interval | max-size | primary-receiver | secondary-receiver | single-interval]*

- *collectorIndex*—Number in the range 1–65535 that identifies the particular data collector
- collect-mode—Specifies one of the following collection modes:
  - auto-xfer—Agent automatically transfers file when interval expires
  - on-file-full—Agent automatically transfers file when it is full
  - manual-xfer—Router or user-initiated transfers; default collection mode
- *descrip*—Descriptive information to insert into the bulkstats file
- *intrvl*—Time period in the range 300– 86400 seconds for which the collector transfers data from the router to the receivers; default interval is 360 seconds
- *maxSize*—Maximum size of the file in the range 10240–20971520 bytes; default file size is 2,621,440 bytes
- *primRecvIndex*—Number in the range 1–65535 that identifies the primary receiver to which the router transfers the data; by default the primary receiver is cleared
- *secRecvIndex*—Number in the range 1–65535 that identifies the secondary (backup) receiver to which the router transfers the data; by default the secondary receiver is cleared
- single-interval—Specifies that the collector retrieves the bulk statistics data only once; by default, the collector receives the data periodically
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bulkstats file-format endOfLine-LF

Description Removes the carriage return (CR) and leaves only a line feed (LF) at the end of each line in the bulkstats file. The **no** version returns the end of line format to the default, CR and LF.

Syntax [no] bulkstats file-format endOfLine-LF

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bulkstats interfaces description-format common

Description Enables the conventional industry method of encoding the SNMP ifDescr object that the bulkstats application reports. The **no** version returns the encoding method to a proprietary encoding scheme.

Syntax [no] bulkstats interfaces description-format common

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bulkstats interfaces rfc1213

Description Enables RFC 1213 interface numbering mode on bulkstats. The **no** version disables RFC 1213 interface numbering mode on bulkstats.

Syntax [no] bulkstats interfaces rfc1213

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bulkstats interface-type

Description Configures the interface type on which you want to collect statistics. The **no** version deletes the interface type from bulkstats collection.

Syntax [no] bulkstats interface-type *interfaceType* [*interfaceSpecifier*]*
[collector *collectorIndex*]

- *interfaceType*—One of the following interface types for which you can collect statistics: ATM, ATM 1483, Ethernet, Frame Relay, Frame Relay subinterface, Cisco HDLC, IP, MPLS minor, MPLS major, MPLS shim, PPP, VLAN subinterface
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line
- *collectorIndex*—Number in the range 1–65535 that identifies the particular data collector. Always specify this option if you defined more than one collector.

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
mplsL2shim, **mplsMajor**, and **mplsMinor** keywords added in JUNOSe Release 8.2.0.

bulkstats receiver remote-name

Description Configures the bulk statistics receiver parameters. The **no** version deletes the receiver.

Syntax bulkstats receiver *receiverIndex* remote-name *remoteName*.sts [*receiverAttrib* [*receiverAttrib*]*]

no bulkstats receiver *receiverIndex* [remote-name *remoteName*]

- *receiverIndex*—Number in the range 1–65535 that identifies the receiver of the data
- *remoteName*—Composed of the remote host, path, filename, and formatters; include a .sts filename extension
- *receiverAttrib*—One of the following dynamic attributes
  - sysName—Inserts the router name into the stored remote filename
  - sysUpTime—Inserts the router up time into the stored remote filename
  - collectorSequence—Inserts a sequence number into the stored remote filename
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bulkstats schema

Description Configures the schema for collecting bulk statistics. The **no** version removes the schema.

Syntax bulkstats schema *schemaIndex* [collector *collectorIndex*]

no bulkstats schema *schemaIndex*

- *schemaIndex*—Identifier for the schema in the range 1–65535
- *collectorIndex*—Identifier for the collector in the range 1–65535

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bulkstats schema subtree

Description Configures the schema for collecting if-stack, if-stats, or router data. The **no** version removes the schema.

Syntax

bulkstats schema *schemaIndex* subtree
{ if-stack | if-stats { subtreelist [*ifstatsList* [*ifstatsList*]*] |
if-create-delete-time-stats interfaceType *interfaceType* } | igmp | system }

bulkstats schema *schemaIndex* subtree
{ if-stack | if-stats | igmp [subtreelist *igmpList* [*igmpList*]*] | system }

no bulkstats schema *schemaIndex*

- *schemaIndex*—Identifier for the schema in the range 1–65535
- if-stack—Retrieves ifStackTable
- if-stats—Retrieves ifTable/ifXTable counters
- *ifstatsList*—Type of statistics and **time-offset** keyword, which includes the offset from the master interval at which the record was collected in each bulkstats interface record
- if-create-delete-time-stats—Retrieves interface final statistics (interface statistics that may be lost during higher create or delete frequency)
- *interfaceType*—One of the following interface types for which you can collect statistics: ATM 1483, IP, MPLS minor, MPLS major, MPLS shim, PPP
- igmp—Retrieves IGMP statistics
- *igmpList*—Type of statistics and **time-offset** keyword, which includes the offset from the master interval at which the record was collected in each bulkstats interface record
- system—Retrieves sysUpTime and nvsUtilPct global statistics; retrieves slotDescr, the cpuUtilPct, and memUtilPct per-slot statistics
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
mplsL2shim, **mplsMajor**, and **mplsMinor** keywords added in JUNOSe Release 8.2.0.

bulkstats schema subtree policy

Description Configures the schema to collect statistics on a specific policy, a type of policy, or based on color-coded tags applied by a policy. The **no** version removes the schema.

Syntax bulkstats schema *schemaIndex* subtree policy [policy-name *policyName*] [policy-type *policyType*] [policy-subtreelist *policyList* [*policyList*]*]

no bulkstats schema *schemaIndex*

- *schemaIndex*—Identifier for the schema in the range 1–65535
- *policyName*—Name of policy for which you want to collect statistics
- *policyType*—Select one of the following types:
  - input—Collect data on input policies
  - localInput—Collect data on local input policies
  - output—Collect data on output policies
- *policyList* —Retrieves statistics based on color-coded tags applied by a policy
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bulkstats traps

Description Configures the bulkstats traps. The **no** version disables the trap.

Syntax bulkstats traps { nearly-full [*threshold*] | full }

no bulkstats traps { nearly-full | full }

- nearly-full—Specifies a percentage less than 100 percent
- *threshold*—Percentage less than 100 percent; if not specified, defaults to 99 percent
- full—100 percent

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bulkstats virtual-router-group

Description Configures the bulkstats for virtual router groups. The **no** version prevents bulkstats from being reported for virtual router groups.

Syntax [no] bulkstats virtual-router-group collector *collectorindex VRnames*

- virtual-router-group—Specifies the name or unique index number that contains from 1 to the maximum number of routers supported in the system
- *collectorIndex*—Number that identifies the particular data collector, in the range 1–65535
- *VRnames*—List of virtual router names

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

bundled-group-id

Description Assigns a bundled group identifier when no endpoint discriminator is available for bundled sessions using an L2TP destination host profile. When multiple tunnel-service modules are installed in a router that is deployed as an LNS and the tunnel sessions carry MLPPP, the router can use the bundled group identifier when selecting a tunnel-service module for bundled sessions. The **no** version restores the default value, no assigned bundled group identifier.

NOTE: We recommend that you assign a bundled group identifier for bundled sessions only when you are certain that endpoint discriminators are unavailable to identify bundle membership.

Syntax [no] bundled-group-id *bundledGroupID*

- *bundledGroupID*—Identifier for a bundled group in the range 0–4294967295

Mode L2TP Destination Profile Host Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

bundled-group-id-overrides-mlppp-ed

Description Specifies that the router uses the bundled group identifier you assigned using the **bundled-group-id** command when selecting a tunnel-service module instead of any endpoint discriminator. The **no** version removes the override.

NOTE: We strongly recommend that you use this command only with the support of JTAC.

Syntax [no] bundled-group-id-overrides-mlppp-ed

Mode L2TP Destination Profile Host Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

cache entries

Description Sets the number of entries in the aggregation cache. The **no** version sets the number of entries to the default value.

Syntax cache entries *entryNumber*

no cache entries

- *entryNumber*—Number of entries in the aggregation cache in the range 1024—524288; default value is 4096

Mode Flow Cache Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

cache timeout

Description Sets the active and inactive aging timers. The **no** version resets the default values.

Syntax cache timeout { active *activeTimer* | inactive *inactiveTimer* }

no cache timeout

- *activeTimer*—Active aging timer in the range 1—60
- *inactiveTimer*—Inactive aging timer in the range 10—600

Mode Flow Cache Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

cablelength

Description Specifies the length of the cable, which determines power requirements. The **no** version uses the default value, 0 feet.

Syntax cablelength *length*

no cablelength

- *length*—Cable length in the range 0–450 feet

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

cbr

Description In ATM VC Configuration mode, configures the constant bit rate (CBR) service category on an ATM PVC. You must specify the peak cell rate (PCR) value. The **cbr** command is valid only for data PVCs; you cannot use this command for control (ILMI or signaling) PVCs. The **no** version restores the default service category, unspecified bit rate (UBR) without a PCR.

In ATM VC Class Configuration mode, configures the CBR service category as part of a VC class definition that you assign to an ATM data PVC. The no version restores the default service category, UBR without a PCR, in the VC class.

Syntax cbr *pcr*

no cbr

- *pcr*—Peak cell rate, in Kbps, in the range 1–149760 (for OC3 ATM modules) or 1–599040 (for OC12 ATM modules)

Mode ATM VC Configuration, ATM VC Class Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.
ATM VC Class Configuration mode added in JUNOSe Release 7.3.0.

channelized

Description Configures a port on the CT3/T3-F0 line module and associated I/O module to support channelized T3 operation. The **no** version configures the port for unchannelized operation.

Syntax [no] channelized

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

check-disk

Description Finds and repairs structural inconsistencies and damage in the DOS file system in unmounted flash cards on the primary SRP module. There is no **no** version.

Syntax check-disk [repair] [disk0 | disk1]

- disk0—Specifies flash card in slot 0 of the SRP module; default value is disk0; available only in Boot mode, because disk0 cannot be in an unmounted state in a router outside of Boot mode
- disk1—Specifies flash card in slot 1 of the SRP module; supported only on the E120 router and the E320 router

Mode Boot, Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.
disk0 and **disk1** keywords added in JUNOSe Release 7.2.0.
Privileged Exec mode added in JUNOSe Release 8.0.0.

check-vpn-next-hops

Description Enables a BGP speaker to take the reachability of the next hop on received VPNv4 or VPNv6 routes into account when it determines the best route to a prefix. Checking the reachability is disabled by default. The **no** version explicitly disables reachability checking.

Syntax [no] check-vpn-next-hops

Mode Address Family Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

classifier-group

Description

Creates a classifier group for a policy list and assigns precedence to the specific CLACL in the group. This command accesses Classifier Group Configuration mode, in which you create policy rule configurations related to the specified CLACL. If a parent group was not created by the **parent-group** command, the **parent-group** keyword creates a parent group in a rate-limit hierarchy for IP, IPv6, L2TP, and MPLS. All packets matching the classifier are sent to the parent group for further processing, except for packets dropped by the classifier using the filter rule. More than one classifier group can have the same parent group, which enables you to create hierarchies. The **no** version removes the classifier group and its rules from the policy list.

Syntax

classifier-group { * | *classifierName* } [precedence *precValue*] [parent-group *parentGroupName*] [external parent-group *externalParentGroupName* parameter *parameterName*]

no classifier-group { * | *classifierName*]

- *—Specifies that the router selects all packets from the interface associated with the policy list for this classifier group
- *classifierName*—Name of a specific CLACL used to classify packets in this policy list
- *precValue*—Precedence value for the CLACL, in the range 0–65535; a value of 100 is assigned if no value is specified
- *parentGroupName*—Name of the parent group; if the parent group does not exist, naming the parent group creates an empty parent group

NOTE: Secure policy lists, which are used for packet mirroring operations, do not support named classifier groups. You must use **classifier-group ***. Also, secure policy lists do not support the **precedence** keyword.

- *externalParentGroupName*—External parent group name
- *parameterName*—Parameter name

Mode

Policy List Configuration

Release Information

Command introduced before JUNOSe Release 7.1.0.
parent-group keyword and *parentGroupName* variable added in JUNOSe Release 7.2.0.
external parent-group keyword and *externalParentGroupName* variable added in JUNOSe Release 8.0.0.

Related Topics

- Creating a Classifier Group for a Policy List
- Configuring CLI-Based Mirroring

class-int

Description When issued from Interface Configuration mode, assigns a previously configured VC class to an ATM major interface. When issued from Subinterface Configuration mode, assigns a previously configured VC class to a static ATM 1483 subinterface. Issuing this command applies the set of attributes in the specified VC class to the ATM data PVCs statically or dynamically created on the ATM major interface or ATM 1483 subinterface. The **no** version removes the VC class association with the interface or subinterface, and causes the router to set the PVC attributes to their systemwide default values, or to the values set in the associated VC class with the next highest order of precedence.

Syntax class-int *vcClassName*

no class-int [*vcClassName*]

- *vcClassName*—Name of the VC class configured with the **vc-class atm** command

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

class-vc

Description Assigns a previously configured VC class to an individual ATM data PVC. The **class-vc** command is valid only for data PVCs created with the **pvc** command; it has no effect for data PVCs created with the **atm pvc** command, or for control (ILMI or signaling) PVCs. Issuing this command applies the set of attributes in the specified VC class to the ATM data PVC. The **no** version removes the VC class association with the ATM PVC.

Syntax class-vc *vcClassName*

no class-vc [*vcClassName*]

- *vcClassName*—Name of the VC class configured with the **vc-class atm** command

Mode ATM VC Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

cleanup-timeout-factor

Description Specifies the number of refresh messages that can be lost before the PATH or RESV state is ended. The **no** version restores the default value, 3.

Syntax cleanup-timeout-factor *lostRefreshes*

no cleanup-timeout-factor

- *lostRefreshes*—Number of lost refresh messages

Mode RSVP Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

clear access-list

Description Clears counters for entries in IP access lists. There is no **no** version.

Syntax clear access-list [*accessListName*]

- *accessListName*—Name of the access list; string of 1–32 alphanumeric characters

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear arp

Description Clears entries from the ARP cache. There is no **no** version.

Syntax clear [ip] arp [vrf *vrfName*] { *ipAddress interfaceType interfaceSpecifier* | * }

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *ipAddress*—IP address in 32-bit dotted-decimal format of the entry to be cleared
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *—Clears all dynamic ARP entries

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear bfd adapted-intervals

Description Resets adapted timer intervals for all BFD sessions on the router. There is no **no** version.

Syntax clear bfd adapted-intervals

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

clear bfd session

Description Restarts all BFD sessions or a specified BFD session. There is no **no** version.

Syntax clear bfd session [address *ipAddress* | discriminator *discriminatorID*]

- *ipAddress*—IP address of the destination to which the session has been established
- *discriminatorID*—Unique system-wide identifier for the BFD session; integer in the range 1–4294967295

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear bgp ipv6

Description Resets the IPv6 BGP session. If the **soft** option is not used, brings down the underlying TCP connection and then brings it back up again, causing both peers to resend their complete BGP routing table. If the **soft out** option is used, the BGP speaker reapplies outbound policy and resends all routes to the specified peer(s). If the **soft in** option is used, the BGP speaker reapplies inbound policy to the routes received from the specified peers. This is possible only if soft reconfiguration inbound has been enabled for the peer or the peer supports the route-refresh capability. There is no **no** version.

Syntax clear bgp ipv6 [unicast | multicast | vpnv6 | route-target signaling] [*ipAddress* | *ipv6Address* | peer-group *peerGroupName* | *] [vrf *vrfName*] [soft [in | out]]

- unicast—Clears the unicast routing table; the default option
- multicast—Clears the multicast routing table
- vpnv6—Clears the VPNv6 unicast routing and forwarding table
- route-target signaling—Clears the route-target membership information
- *ipAddress*—IP address of identified BGP neighbor to clear
- *ipv6Address*—IPv6 address of identified BGP neighbor to clear
- *peerGroupName*—Name of a BGP peer group to clear
- *—Clears all connections
- *vrfName*—Name of a virtual routing and forwarding instance to clear
- soft—Specifies soft reconfiguration
  - in—Triggers inbound soft reconfiguration
  - out—Triggers outbound soft reconfiguration

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.
ipv6Address variable added in JUNOSe Release 8.0.0.
route-target signaling keywords added in JUNOSe Release 8.2.0.

clear bgp ipv6 dampening

Description Clears IPv6-specific BGP route flap dampening information and reinstates the suppressed routes. If the *ipv6Prefix* option is not used, clears the entire IPv6 BGP routing table. The **dampening** keyword and the **flap-statistics** keyword both have the same effect. There is no **no** version.

Syntax To clear IPv6-specific information for only the route-target address family:

clear bgp ipv6 route-target signaling
{ dampening | flap-statistics } [*rtMemNlri*]

To clear IPv6-specific information for any case other than for the route-target address family:

clear bgp ipv6 [vrf *vrfName*] [unicast | multicast | vpnv6]
{ dampening | flap-statistics } [*ipv6Prefix*]

- route-target signaling—Clears the route-target membership information
- *rtMemNlri*—Prefix representing the route-target membership NLRI (RT-MEM-NLRI), in the format *asNumber*:*extendedCommunity*/*prefixLength* (for example, 320:320:524/36) where:
  - *asNumber*—AS number for origin of route target information, in the range 1–4294967295
  - *extendedCommunity*—Two-part number in the format *number1*:*number2* that identifies an extended community of VPNs, in the format *number1*:*number2*, where:
    - *number1*—Autonomous system (AS) number, in the range 1–4294967295, or an IP address
    - *number2*—Unique integer, in the range 1–4294967295; 32 bits if *number1* is a 16-bit AS number; 16 bits if *number1* is an IP address or a 32-bit AS number
  - *prefixLength*—Number that specifies the length of the route prefix, in the range 32–96
- *vrfName*—Name of a virtual routing and forwarding instance to clear
- unicast—Clears the unicast routing table; the default option
- multicast—Clears the multicast routing table
- vpnv6—Clears the VPNv6 unicast routing and forwarding table
- *ipv6Prefix*—IPv6 network for which to clear dampening information

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.
route-target signaling keywords and *rtMemNlri* variable added in JUNOSe Release 8.2.0.

clear bgp ipv6 dynamic-peers

Description Removes all IPv6-specific dynamic peers in the specified scope. There is no **no** version.

Syntax clear bgp ipv6 [*ipAddress* | *ipv6Address* | peer-group *peerGroupName* | *] [vrf *vrfName*] dynamic-peers

- *ipAddress*—IP address of identified BGP neighbor to clear
- *ipv6Address*—IPv6 address of identified BGP neighbor to clear
- *peerGroupName*—Name of a BGP peer group to clear
- *—Clears all connections
- *vrfName*—Name of a virtual routing and forwarding instance to clear

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.
ipv6Address variable added in JUNOSe Release 8.0.0.

clear bgp ipv6 redistribution

Description Clears all IPv6 routes that have been redistributed into BGP. There is no **no** version.

Syntax clear bgp ipv6 [unicast | multicast] redistribution

- unicast—Clears the unicast routing table; the default option
- multicast—Clears the multicast routing table

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear bgp ipv6 wait-end-of-rib

Description Resets the IPv6 BGP session and brings down the underlying TCP connection and then brings it back up again, causing both peers to resend their complete BGP routing table. Clears the specified peer from the set of peers for which BGP is waiting to receive an End-of-RIB marker after a peer restart. Hard clearing a peer has the same effect for that peer. There is no **no** version.

Syntax clear bgp ipv6 [unicast | multicast | vpnv6 | route-target signaling] [vrf *vrfName*] [*ipAddress* | *ipv6Address* | peer-group *peerGroupName* | *] wait-end-of-rib

- unicast—Clears the unicast routing table; the default option
- multicast—Clears the multicast routing table
- vpnv6 —Clears the VPNv6 unicast routing and forwarding table
- route-target signaling—Clears the route-target membership information
- *vrfName*—Name of a virtual routing and forwarding instance to clear
- *ipAddress*—IP address of identified BGP neighbor to clear
- *ipv6Address*—IPv6 address of identified BGP neighbor to clear
- *peerGroupName*—Name of a BGP peer group to clear
- *—Clears all connections

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.
ipv6Address variable added in JUNOSe Release 8.0.0.
route-target signaling keywords added in JUNOSe Release 8.2.0.

clear bridge

Description Removes all dynamic (learned) MAC address entries from the forwarding table for the specified bridge group or VPLS instance . There is no **no** version.

Syntax clear bridge { *bridgeGroupName* | *vplsName* }

- *bridgeGroupName*—Name of a bridge group specified with the **bridge** command
- *vplsName*—Name of a VPLS instance created with the **bridge vpls transport-virtual-router** command

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.
vplsName variable added in JUNOSe Release 7.1.0.

clear bridge address

Description Removes a specific dynamic (learned) MAC address entry from the forwarding table for the specified bridge group or VPLS instance. There is no **no** version.

Syntax clear bridge { *bridgeGroupName* | *vplsName* } address *macAddress*

- *bridgeGroupName*—Name of a bridge group specified with the **bridge** command
- *vplsName*—Name of a VPLS instance created with the **bridge vpls transport-virtual-router** command
- *macAddress*—Unique 48-bit (6-byte) number that is programmed into each LAN network interface card (NIC) at the time of manufacture; also known as a hardware address or physical address. The MAC address format is a dotted triple of four-digit hexadecimal numbers; for example, 0090.1a40.4c7c

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.1.0.
vplsName variable added in JUNOSe Release 7.1.0.

clear bridge interface

Description Removes from the forwarding table all dynamic (learned) MAC address entries for a specified network interface that belongs to a bridge group or to a VPLS instance . There is no **no** version.

NOTE: Using the **clear bridge interface** command for a VPLS instance affects the specified network interface associated with the VPLS instance, but has no effect on the VPLS virtual core interface, which represents all of the MPLS tunnels from the router to the remote VPLS edge (VE) devices. To remove all MAC addresses from the forwarding table for the VPLS virtual core interface, use the **clear bridge interface vpls** command.

Syntax clear bridge interface *interfaceType interfaceSpecifier*

- *interfaceType*—One of the following interface types listed in *Interface Types and Specifiers* in *About This Guide*:
  - atm
  - fastEthernet
  - gigabitEthernet
  - tenGigabitEthernet
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear bridge interface vpls

Description Removes from the forwarding table for a VPLS instance all dynamic (learned) MAC address entries on the VPLS virtual core interface, which represents all of the MPLS tunnels from the router to the remote VPLS edge (VE) devices. There is no **no** version.

NOTE: Using the **clear bridge interface vpls** command affects the VPLS virtual core interface, but has no effect on the network interfaces associated with the VPLS instance. To remove all MAC addresses from the forwarding table for a VPLS network interface, use the **clear bridge interface** command.

Syntax clear bridge interface vpls *vplsName*

- *vplsName*—Name of a VPLS instance created with the **bridge vpls transport-virtual-router** command

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.1.0.

clear egress-queue

Description Clears egress queue statistics for the all queues bound to the specified interface for queues stacked at and above the interface, or only for the specified traffic class. There is no **no** version.

Syntax clear egress-queue *interfaceType interfaceSpecifier* [explicit]
[traffic-class *trafficClassName*]

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- explicit—Clears queues only on the specified interface and not queues stacked above the interface
- *trafficClassName*—Name of a traffic class for which egress queue statistics are cleared

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear fabric-queue

Description Clears statistics for all fabric queues or for the specified traffic-class, egress-slot, or both. There is no **no** version.

Syntax clear fabric-queue [traffic-class *trafficClassName*] [egress-slot *egressSlot*]

- *trafficClassName*—Name of a traffic class for which fabric-queue statistics will be cleared
- *egressSlot*—Number of an egress slot for which fabric-queue statistics will be cleared

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ip bgp

Description If the **soft** option is not used, brings down the underlying TCP connection and then brings it back up again, causing both peers to resend their complete BGP routing table. If the **soft out** option is used, the BGP speaker reapplies outbound policy and resends all routes to the specified peers. If the **soft in** option is used, the BGP speaker reapplies inbound policy to the routes received from the specified peers. This is possible only if soft reconfiguration inbound has been enabled for the peer or the peer supports the route-refresh capability. There is no **no** version.

Syntax clear ip bgp [*ipAddress* | *ipv6Address* | peer-group *peerGroupName* | *] [vrf *vrfName*] [ipv4 unicast | ipv4 multicast | vpnv4 unicast | l2vpn | route-target signaling] [soft [in [prefix-filter] | out]]

- *ipAddress*—IP address of identified BGP neighbor to clear
- *ipv6Address*—IPv6 address of identified BGP neighbor to clear
- *peerGroupName*—Name of a BGP peer group to clear
- *—Clears all connections
- *vrfName*—Name of a virtual routing and forwarding instance to clear
- ipv4 unicast—Clears the IPv4 unicast routing table; the default option
- ipv4 multicast—Clears the IPv4 multicast routing table
- vpnv4 unicast—Clears the VPNv4 unicast routing and forwarding table
- l2vpn—Clears the L2VPN reachability information
- route-target signaling—Clears the route-target membership information
- soft—Specifies soft reconfiguration
  - in—Triggers inbound soft reconfiguration
  - prefix-filter—Pushes out prefix list and Cisco-proprietary prefix list outbound route filters and triggers inbound soft reconfiguration
  - out—Triggers outbound soft reconfiguration

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.
l2vpn keyword added in JUNOSe Release 7.1.0.
ipv6Address variable added in JUNOSe Release 8.0.0.
route-target signaling keywords added in JUNOSe Release 8.2.0.

Related Topics

- Clearing BGP Reachability Information for the L2VPN Address Family

clear ip bgp dampening

Description Clears IP route flap dampening information and reinstates the suppressed routes. The **dampening** keyword and the **flap-statistics** keyword both have the same effect. There is no **no** version.

Syntax To clear IP-specific information for only the route-target address family:

clear ip bgp route-target signaling { dampening | flap-statistics } [*rtMemNlri*]

To clear IP-specific information for any case other than for the route-target address family:

clear ip bgp
[vrf *vrfName*] [ipv4 unicast | ipv4 multicast | vpnv4 unicast |
l2vpn { all | vpls *vplsName* | vpws *vpwsName* }]
{ dampening | flap-statistics } [*ipAddress* [*addressMask*]]

- route-target signaling—Clears the route-target membership information
- *rtMemNlri*—Prefix representing the route-target membership NLRI (RT-MEM-NLRI), in the format *asNumber*:*extendedCommunity*/*prefixLength* (for example, 320:320:524/36) where:
  - *asNumber*—AS number for origin of route target information, in the range 1–4294967295
  - *extendedCommunity*—Two-part number in the format *number1*:*number2* that identifies an extended community of VPNs, in the format *number1*:*number2*, where:
    - *number1*—Autonomous system (AS) number, in the range 1–4294967295, or an IP address
    - *number2*—Unique integer, in the range 1–4294967295; 32 bits if *number1* is a 16-bit AS number; 16 bits if *number1* is an IP address or a 32-bit AS number
  - *prefixLength*—Number that specifies the length of the route prefix, in the range 32–96
- *vrfName*—Name of a virtual routing and forwarding instance to clear
- ipv4 unicast—Clears the IPv4 unicast routing table; the default option
- ipv4 multicast—Clears the IPv4 multicast routing table
- vpnv4 unicast—Clears the VPNv4 unicast routing and forwarding table
- l2vpn all—Clears the L2VPN reachability information for all VPLS instances in the L2VPN address family
- l2vpn vpls *vplsName*—Clears the L2VPN reachability information for the VPLS instance with the name *vplsName*

- l2vpn vpws *vpwsName*—Clears the L2VPN reachability information for the L2VPN (VPWS) instance with the name *vpwsName*
- *ipAddress*—IP address of the BGP neighbor to clear
- *addressMask*—Address mask to be applied to the network IP address

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.
l2vpn keyword added in JUNOSe Release 7.1.0.
vpls keyword and *vplsName* variable added in JUNOSe Release 7.1.0.
all, **vpws**, and **route-target signaling** keywords and *rtMemNlri* and *vpwsName* variables added in JUNOSe Release 8.2.0.

Related Topics

- Clearing BGP Route Flap Dampening Information for the L2VPN Address Family
- Clearing BGP Route Flap Dampening Information for the VPWS Address Family

clear ip bgp dynamic-peers

Description Removes all dynamic peers in the specified scope. There is no **no** version.

Syntax clear ip bgp [*ipAddress* | *ipv6Address* | peer-group *peerGroupName* | *] [vrf *vrfName*] dynamic-peers

- *ipAddress*—IP address of identified BGP neighbor to clear
- *ipv6Address*—IPv6 address of identified BGP neighbor to clear
- *peerGroupName*—Name of a BGP peer group to clear
- *—Clears all connections
- *vrfName*—Name of a virtual routing and forwarding instance to clear

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.
ipv6Address variable added in JUNOSe Release 8.0.0.

clear ip bgp redistribution

Description Reapplies policy to routes that have been redistributed into BGP. There is no **no** version.

Syntax clear ip bgp [ipv4 { unicast | multicast }] redistribution

- ipv4 unicast—Reapplies policy to redistributed IPv4 unicast routes
- ipv4 multicast—Reapplies policy to redistributed IPv4 multicast routes

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ip bgp wait-end-of-rib

Description Brings down the underlying TCP connection and then brings it back up again, causing both peers to resend their complete BGP routing table, but clears the specified peer from the set of peers for which BGP is waiting to receive an End-of-RIB marker after a peer restart. Hard clearing a peer has the same effect for that peer. There is no **no** version.

Syntax clear ip bgp [*ipAddress* | *ipv6Address* | peer-group *peerGroupName* | *] [vrf *vrfName*] [ipv4 unicast | ipv4 multicast | vpnv4 unicast | l2vpn | route-target signaling] wait-end-of-rib

- *ipAddress*—IP address of identified BGP neighbor to clear
- *ipv6Address*—IPv6 address of identified BGP neighbor to clear
- *peerGroupName*—Name of a BGP peer group to clear
- *—Clears all connections
- *vrfName*—Name of a virtual routing and forwarding instance to clear
- ipv4 unicast—Clears the IPv4 unicast routing table; the default option
- ipv4 multicast—Clears the IPv4 multicast routing table
- vpnv4 unicast—Clears the VPNv4 unicast routing and forwarding table
- l2vpn—Clears the L2VPN reachability information
- route-target signaling—Clears the route-target membership information

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.
l2vpn keyword added in JUNOSe Release 7.1.0.
ipv6Address variable added in JUNOSe Release 8.0.0.
route-target signaling keywords added in JUNOSe Release 8.2.0.

Related Topics

- Clearing the Wait for the End-of-RIB Marker for the L2VPN Address Family

clear ip demux

Description Clears all dynamically created demultiplexer table entries associated with route-map processing of the **set ip source-prefix** command. There is no **no** version.

Syntax clear ip demux

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ip dhcp-local binding

Description Clears the specified IP DHCP address binding. There is no **no** version.

> **NOTE:** This command is deprecated and might be removed completely in a future release. The function provided by this command has been replaced by the **dhcp delete-binding** command.

Syntax clear ip dhcp-local binding *ipAddress*

- *ipAddress*—DHCP IP address binding to clear

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ip dvmrp routes

Description Clears DVMRP routes from the routing table. There is no **no** version.

Syntax clear ip dvmrp routes [*ipAddress* [*addressMask*]]

- *ipAddress*—IP address for which longest match is cleared
- *addressMask*—Address mask to be applied to the IP address

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ip flow stats

Description Clears all entries from all flow caches on the router. There is no **no** version.

> **CAUTION:** Using this command may temporarily disrupt flow data collection.

Syntax clear ip flow stats

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ip interface

Description Clears the counters on the specified IP interface. The default is all interface types and all interfaces. There is no **no** version.

Syntax clear ip interface [vrf *vrfName*] *interfaceType interfaceSpecifier*

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ip isis redistribution

Description Clears all the routes that have previously been redistributed into IS-IS and redistributes them using the current policy configuration. There is no **no** version.

Syntax clear ip isis redistribution

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ip mobile binding

Description Clears the binding table in a virtual router or a specified binding determined by the mobile node home address or network access identifier (NAI). There is no **no** version.

Syntax clear ip mobile binding { nai { *user@realm* | *@realm* | @ } | *ipAddress* | all }

- *user@realm*—Name of the user for the mobile node specification when the **nai** keyword is specified, in the format *user@realm*, where *realm* is the domain name
- *@realm*—Name of the user for the mobile node specification when the **nai** keyword is specified, in the format *@realm*, where *realm* is the domain name
- @—Name of the user for the mobile node specification when the **nai** keyword is specified, in the format @
- *ipAddress*—IP address of the home agent
- all—Clears all the bindings in the binding table

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 9.0.0.

clear ip mroute

Description Clears all or the specified multicast forwarding entries. There is no **no** version.

Syntax clear ip mroute { * | *grpAddress* [*sourceAddress*] }

- *—Clears all IP multicast forwarding entries
- *grpAddress*—Address of the multicast group for which forwarding entries should be cleared
- *sourceAddress*—Address of the multicast source for which forwarding entries should be cleared

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ip nat translation

Description Clears all or the specified NAT table entries. There is no **no** version.

Syntax clear ip nat translation *

clear ip nat translation inside *insideGlobalIpAddress insideLocalIpAddress*

clear ip nat translation outside *outsideLocalIpAddress outsideGlobalIpAddress*

clear ip nat translation { icmp | tcp | udp }
inside *insideGlobalIpAddress insideGlobalPort insideLocalIpAddress insideLocalPort*

clear ip nat translation { gre | icmp | tcp | udp }
inside *insideGlobalIpAddress * insideLocalIpAddress **

clear ip nat translation { icmp | tcp | udp }
inside *insideGlobalIpAddress insideGlobalPort insideLocalIpAddress insideLocalPort*
outside *outsideLocalIpAddress outsideLocalPort outsideGlobalIpAddress outsideGlobalPort*

- *—Clears all translations when used in the **clear ip nat translation** version of this command
- *—Matches any global or local port to remove inside source extended GRE, ICMP, TCP, or UDP translations for the specified global IP address and local IP address when used in the **clear ip nat translation { gre | icmp | tcp | udp } inside** *insideGlobalIpAddress* * *insideLocalIpAddress* * version of this command
- inside—Specifies an inside address
- *insideGlobalIpAddress*—Inside global IP address
- *insideLocalIpAddress*—Inside local IP address
- outside—Specifies an outside address
- *outsideLocalIpAddress*—Outside local IP address
- *outsideGlobalIpAddress*—Outside global IP address
- tcp—Specifies a TCP port translation
- udp—Specifies a UDP port translation

- icmp—Specifies an ICMP port translation
- gre—Specifies a GRE translation
- *insideGlobalPort*—Inside global port number
- *insideLocalPort*—Inside local port number
- *outsideGlobalPort*—Outside global port number
- *outsideLocalPort*—Outside local port number

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.
gre keyword added in JUNOSe Release 7.3.0.

clear ip ospf database

Description Deletes all entries from the OSPF link-state database and resets all adjacencies. There is no **no** version.

Syntax clear ip ospf database

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.1.0.

clear ip ospf neighbor

Description Clears or resets adjacency with a specified neighbor session. There is no **no** version.

NOTE: When OSPF is configured and running over an NBMA network, do not issue the **clear ip ospf neighbor** command simultaneously on both ends of the OSPF link. Doing so brings the OSPF link down completely. In this event, you must do one of the following on both sides of the link to bring the link back up:

- Reconfigure the OSPF neighbors on the NBMA interface with the **neighbor** command.
- Issue the **clear ip ospf database** command to clear and reset the OSPF adjacencies.
- Issue the **shutdown** command followed by the **no shutdown** command on the interface.

Syntax clear ip ospf neighbor [*neighborAddress*]

- *neighborAddress*—IP address of identified neighbor to clear or reset

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.1.0.

clear ip ospf redistribution

Description Clears and readvertises all of the routes that have been previously redistributed into OSPF. Exercise caution when using this command as it purges all external LSAs and reoriginates. There is no **no** version.

Syntax clear ip ospf redistribution

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ip pim auto-rp

Description Clears the group-to-RP router mappings the router learned via autoRP. There is no **no** version.

Syntax clear ip pim auto-rp [*ipAddress*]

- *ipAddress*—IP address of the router designated as an RP router

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ip pim interface count

Description Clears the counters for multicast packet statistics on all interfaces or the specified interface. There is no **no** version.

Syntax clear ip pim interface [*interfaceType interfaceSpecifier*] count

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ip pim remote-neighbor count

Description Clears the counters for remote neighbor statistics on all interfaces or the specified interface. There is no **no** version.

NOTE: This command is typically used when you configure PIM remote neighbors to run multicast services over BGP/MPLS VPNs. That functionality is no longer supported.

Syntax clear ip pim remote-neighbor [*ipAddress*] count

- *ipAddress*—IP address of the interface

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ip prefix-list

Description Clears all hit counts in the prefix lists, the specified prefix list, or the specified entry from the specified prefix list. There is no **no** version.

Syntax clear ip prefix-list [*listName* [*network/length*]]

- *listName*—Name of the prefix list; string of up to 32 characters
- *network*—Base address of the network route to be filtered; for example, 192.168.32.0 or 10.10.0.0
- *length*—Length of the network prefix; number of bits masking base address to produce address to be matched

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ip prefix-tree

Description Clears all prefix trees, the specified prefix tree, or the specified entry from the specified prefix tree. There is no **no** version.

Syntax clear ip prefix-tree [*treeName* [*network/length*]]

- *treeName*—Name of the prefix list; string of up to 32 characters
- *network*—Base address of the network route to be filtered; for example, 192.168.32.0 or 10.10.0.0
- *length*—Length of the network prefix; number of bits masking base address to produce address to be matched

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ip rip dynamic-interfaces

Description Clears all existing dynamic, unnumbered interfaces that were created since issuing the **ip rip copy-to-dynamic** command. There is no **no** version.

Syntax clear ip rip dynamic-interfaces

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ip rip redistribution

Description Clears all the routes that have previously been redistributed into RIP. There is no **no** version.

Syntax clear ip rip redistribution

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ip routes

Description Clears a specified route or all dynamic routes from the routing table of a specified VRF or all VRFs. There is no **no** version.

Syntax clear ip routes [vrf *vrfName*] { * | *ipAddress ipMask* }

- *vrfName*—Name of the VRF context from which routes are to be cleared
- *—Clears all dynamic routes
- *ipAddress*—IP address prefix for routes that are cleared; in 32-bit dotted-decimal format
- *ipMask*—Mask of the IP address prefix for routes that are cleared; in 32-bit dotted-decimal format

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ip routes download

Description Synchronizes downloaded access routes and the routes installed in the routing table. This command has no effect if a download operation is in progress. There is no **no** version.

Syntax For a specific VRF
clear ip routes download [vrf *vrfName*] { *ipAddress ipMask* | * }

For all virtual routers
clear ip routes download { all | reload }

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters; the current virtual router is used by default
- *ipAddress*—IP address prefix to clear
- *ipMask*—Network mask of the IP address prefix to clear
- *—Clears all dynamic routes that are installed in the routing table of the current virtual router or specified VRF
- all—Clears all downloaded routes that are installed in the routing tables of all virtual routers and VRFs.
- reload—Performs a route download operation, then clears all downloaded routes from the routing tables in all virtual routers and VRFs.

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 8.1.0.

clear ip tunnel-routes

Description Clears and then refreshes a specified route or all dynamic routes from the tunnel routing table of the virtual router or a specified VRF. There is no **no** version.

Syntax clear ip tunnel-routes [vrf *vrfName*] { * | *ipAddress ipMask* }

- *vrfName*—Name of the VRF context from which routes are to be cleared
- *—Clears all dynamic routes
- *ipAddress*—IP address prefix for routes that are cleared; in 32-bit dotted-decimal format
- *ipMask*—Mask of the IP address prefix for routes that are cleared; in 32-bit dotted-decimal or /*N* format

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.1.0.

clear ipv6 access-list

Description Clears counters for entries in IP access lists. There is no **no** version.

Syntax clear ipv6 access-list [*accessListName*]

- *accessListName*—Name of the access list; a string of up to 32 characters

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ipv6 bfd session

Description Restarts all IPv6 BFD sessions or a specified BFD session. There is no **no** version.

Syntax clear ipv6 bfd session [address *ipv6Address*]

- *ipAddress*—IP address of the destination to which the session has been established

Mode Privileged Exec, User Exec

Release Information Command introduced in JUNOSe Release 7.1.0.

clear ipv6 interface

Description Clears the counters on the specified IPv6 interface. The default is all interface types and all interfaces. There is no **no** version.

Syntax clear ipv6 interface *interfaceType interfaceSpecifier*

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ipv6 mroute

Description Clears all or the specified IPv6 multicast forwarding entries. There is no **no** version.

Syntax clear ipv6 mroute { * | *grpAddress* [*sourceAddress*] }

- *—Clears all IPv6 multicast forwarding entries
- *grpAddress*—Address of the multicast group for which forwarding entries should be cleared
- *sourceAddress*—Address of the multicast source for which forwarding entries should be cleared

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ipv6 neighbors

Description Clears all IPv6 dynamic neighbors. The **include-statics** keyword clears both dynamic neighbors and static neighbors. The **statics-only** keyword clears only IPv6 static neighbors. There is no **no** version.

Syntax clear ipv6 neighbors [include-statics | statics-only]

- include-statics—Clears both dynamic and static neighbors
- statics-only—Clears only static neighbors

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ipv6 ospf counters

Description Clears all OSPF IPv6 statistical counters for the virtual router. There is no **no** version.

Syntax clear ipv6 ospf [*processId*] counters

- *processId*—Number in the range 1–65535 that identifies the OSPF process

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ipv6 ospf process

Description Clears the OSPF IPv6 process on the virtual router. There is no **no** version.

Syntax clear ipv6 ospf [*processId*] process

- *processId*—Number in the range 1–65535 that identifies the OSPF process

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ipv6 ospf redistribution

Description Clears and readvertise all of the routes that have been previously redistributed into OSPF. Exercise caution when using this command as it purges all external LSAs and reoriginates. There is no **no** version.

Syntax clear ipv6 ospf redistribution

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ipv6 pim interface

Description Clears the counters for multicast packet statistics on all IPv6 interfaces or the specified IPv6 interface. There is no **no** version.

Syntax clear ipv6 pim interface [*interfaceType interfaceSpecifier*] count

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ipv6 pim remote-neighbor

Description Clears the counters for remote neighbor statistics on all IPv6 interfaces or the specified IPv6 interface. There is no **no** version.

Syntax clear ipv6 pim remote-neighbor [*ipv6Address*] count

- *ipv6Address*—IPv6 address of the interface

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ipv6 prefix-list

Description Clears all hit counts in all IPv6 prefix lists, the specified prefix list, or the specified entry from the specified prefix list. There is no **no** version.

Syntax clear ipv6 prefix-list [*listName* [*network/length*]]

- *listName*—Name of the IPv6 prefix list; string of up to 32 characters
- *network*—Base address of the network route to be filtered; for example, ::ffff:a:b:c:d
- *length*—Length of the network prefix; number of bits masking base address to produce address to be matched

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ipv6 routes

Description Clears IPv6 routes. To clear the routes for a specific IPv6 network, specify the IPv6 prefix. To clear all dynamic IPv6 routes, use the * (asterisk) option. There is no **no** version.

Syntax clear ipv6 routes [*ipv6Prefix* | *]

- *ipv6Prefix*—IPv6 network for which to clear route information
- *—Clears all dynamic IPv6 routes

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear ipv6 tunnel-routes

Description Clears and then refreshes IPv6 routes from the tunnel routing table. To clear the routes for a specific IPv6 network, specify the IPv6 prefix. To clear all dynamic IPv6 routes, use the * (asterisk) option. There is no **no** version.

Syntax clear ipv6 tunnel-routes [*ipv6Prefix* | *]

- *ipv6Prefix*—IPv6 network for which to clear route information
- *—Clears all dynamic IPv6 routes

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.1.0.

clear isis adjacency

Description Clears all entries from the adjacency database, or clears only adjacencies with a specified neighbor. There is no **no** version.

Syntax clear isis adjacency [*systemId* | *hostname*]

- *systemID*—System ID of an IS-IS neighbor
- *hostname*—Hostname of an IS-IS neighbor

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear isis database

Description Clears all entries from the IS-IS link-state database, or clears only entries associated with a specified neighbor. There is no **no** version.

Syntax clear isis database [*systemId* | *hostname*]

- *systemId*—System ID of an IS-IS neighbor
- *hostname*—Hostname of an IS-IS neighbor

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear isis ipv6 redistribution

Description Clears all the IPv6 routes that have previously been redistributed into IS-IS and redistributes them using the current policy configuration. There is no **no** version.

Syntax clear isis ipv6 redistribution

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 8.2.0.

clear l2c discovery-table

Description Clears all entries or a specified entry from the topology discovery table. There is no **no** version.

Syntax clear l2c discovery-table { neighbor *neighborName* | end-user-id *userId* | neighbor *neighborName* end-user-id *userId* }

- *neighborName*—Name of the neighbor you want to reset
- *userId*—User ID you want to reset

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.2.0.

clear l2c neighbor

Description Resets the specified GSMP neighbor session. There is no **no** version.

Syntax clear l2c neighbor *neighborName*

- *neighborName*—Name of the neighbor you want to reset

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear line

Description Removes all services on any line on the system and closes any files opened as a result of services on that line. There is no **no** version.

Syntax clear line { *absoluteLine* | *cliType relativeLine* }

- *absoluteLine*—Absolute number of the line to which the user is connected; see the line number field in the **show users** command output
- *cliType*—One of the following types of lines:
  - console
  - vty
- *relativeLine*—Relative number for a line; see the line name field in the **show users** command output

Mode User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear mirror log

Description Clears all log entries for packet mirroring operations. By default, you must have CLI user access level 13 or above to use this command; an administrator can modify the user access level requirement. There is no **no** version.

Syntax clear mirror log

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Monitoring Packet Mirroring Overview
- Logging Packet Mirroring Information

clear mpls dynamic-interfaces on-major-interfaces

Description Removes and re-creates both dynamic IPv4 interfaces and dynamic IPv6 interfaces that are on top of all MPLS major interfaces or on top of the specified MPLS major interface. There is no **no** version.

Syntax clear mpls dynamic-interfaces [ip | ipv6] on-major-interfaces [*interfaceType interfaceSpecifier*]

- ip—Specifies that only IPv4 dynamic interfaces are removed and re-created
- ipv6—Specifies that only IPv6 dynamic interfaces are removed and re-created
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.2.0.

clear mpls ldp

Description Removes and reestablishes existing LDP LSPs, thereby forcing the reapplication of policies on the reestablished topology-driven LDP LSPs. You can clear all LDP LSPs or limit the clearance to only LSPs to a specified prefix or neighbor. There is no **no** version.

Syntax clear mpls ldp [prefix *destAddr* [*maskLen* | *mask*] | neighbor [*neighborAddress*]]

- *destAddr*—IP address of the prefix to be cleared
- *maskLen*—Length of the prefix to be cleared; number in the range 0–32
- *mask*—Mask for the prefix to be cleared
- *neighborAddress*—IP address of a neighbor 32-bit dotted-decimal format of the entry to be cleared

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear redundancy history

Description Clears the high availability switchover history for the router. There is no **no** version.

Syntax clear redundancy history

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear rsvp authentication

Description Clears the security association and resets the sequence number on the receiving peer for the specified sending peer. There is no **no** version.

Syntax clear { ip | mpls } rsvp authentication [*ipAddress*]

- ip—Specifies keyword for compatibility with non–E-series implementations
- mpls—Indicates JUNOSe MPLS implementation
- *ipAddress*—IP address of sending peer

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clear suspicious-control-flow-detection

Description Clears one or more suspicious flows. If you do not specify a slot, interface, or IP address, clears all suspicious flows. If you specify a slot, clears all specified suspicious flows on that slot. If you specify an interface and protocol, clears flows that are identified down to the Ethernet mac address level. There is no **no** version.

Syntax clear suspicious-control-flow-detection
[interface *interfaceSpecifier* protocol *protocolValue* address *ethernetAddress* slot *slotNumber*]

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *protocolValue*—Name of the protocol to be cleared
- *ethernetAddress*—Ethernet address to be cleared
- *slotNumber*—Number of the slot to be cleared

Mode Privileged Exec, User Exec

Release Information Command introduced in JUNOSe Release 7.3.0.

client-name

Description From Domain Map Tunnel Configuration or Tunnel Group Tunnel Configuration mode, sets a hostname for a tunnel that the LAC uses when communicating with the LNS about the tunnel. The **no** version removes the hostname from the tunnel.

NOTE: In Domain Map Tunnel Configuration mode, this command is replacing the **hostname** command. The **hostname** command may be removed completely from Domain Map Tunnel Configuration mode in a future release.

Syntax client-name *clientname*

no client-name

- *clientname*—String of up to 64 characters (no spaces)

Mode Domain Map Tunnel Configuration, Tunnel Group Tunnel Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

clns configuration-time

Description Specifies the rate at which ES hellos and IS hellos are sent. The **no** version restores the default value, 10 seconds.

Syntax clns configuration-time *configTime*

no clns configuration-time

- *configTime*—Number in the range 1–65535; rate in seconds at which ES and IS hello packets are sent; default value is 10 seconds

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

clns holding-time

Description Allows the sender of an ES hello or IS hello to specify the length of time you consider the information in the hello packets to be valid. The **no** version restores the default value, 30 seconds.

Syntax clns holding-time *holdTime*

no clns holding-time

- *holdTime*—Number in the range 1–65535; length of time in seconds during which the information in the hello packets is considered valid

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

clns host

Description Defines a name-to-NSAP mapping that can then be used with commands requiring NSAPs. Enables dynamic resolution of hostnames to system IDs (within the NSAP address). The hostname mapping is sent in the LSPs within the dynamic hostname TLV tuple. Display the TLV by issuing the **show isis database detail** command. Use the **show hosts** command to display the mapping. The **no** version restores the default of no mapping defined.

Syntax clns host *name nsap*

no clns host *name*

- *name*—Name for the NSAP; first character can be either a letter or a number. If a number is used, the operations you can perform are limited.
- *nsap*—NSAP to which that name maps

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

clock set

Description Allows you to manually set the system clock. There is no **no** version.

Syntax clock set *time* { *month day* | *day month* } *year*

- *time*—Current time (in 24-hour format – *HH*:*MM*:*SS*)
- *month*—Name of the month (January, February, …)
- *day*—Day of the month (1–31)
- *year*—Year (2000, 2001, …)

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

clock source

Description Determines how an interfaces obtains clocking signals. The **no** version restores the default value, **line**.

Syntax clock source { line | internal { module | chassis } }

no clock source

- line—Interface clocks data from a clock recovered from the line's receive data stream; the default.
- internal—Internal clock source transmits data from its internal clock. You must specify one of the following for internal clocking:
  - module—Internal clock is from the line module itself
  - chassis—Internal clock is from the configured system clock

Mode Controller Configuration, Interface Configuration (POS only)

Release Information Command introduced before JUNOSe Release 7.1.0.

clock summer-time date

Description Sets the router to automatically switch to summer time (Daylight Saving Time—DST). It should start on the first specific date listed in the command and end on the second specific date in the command. The **no** version configures the software so that it does not automatically switch to summer time.

Syntax clock summer-time *name* date { *startDay startMonth* | *startMonth startDay* } *startYear startTime* { *stopDay stopMonth* | *stopMonth stopDay* } *stopYear stopTime* [*dstOffset*]

no clock summer-time

- *name*—Name of the time zone (for example, PDT) to be displayed when daylight saving (summer) time is in effect
- date—Indicates that summer time should start on the first specific date listed in the command and end on the second specific date in the command
- *startDay*—DST start day (1–31)
- *startMonth*—DST start month (January, February, …)
- *startYear*—DST start year (2000, 2001, …)
- *startTime*—DST start time (24-hour format) in hours and minutes (hh:mm)
- *stopDay*—DST stop day
- *stopMonth*—DST stop month
- *stopYear*—DST stop year
- *stopTime*—DST stop time (24-hour format)
- *dstOffset*—Number of minutes to add during summer time in the range 1–1440; default = 60

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

clock summer-time recurring

Description Sets the router to automatically switch to summer time (Daylight Saving Time) on the specified dates every year. The **no** version configures the software not to automatically switch to summer time.

Syntax clock summer-time *name* recurring [{ *startWeekNumber* | *startWeekEnum* } *startDay startMonth startTime* { *stopWeekNumber* | *stopWeekEnum* } *stopDay stopMonth stopTime* [*dstOffset*]]

no clock summer-time

- *name*—Name of the time zone (for example, EDT for Eastern Daylight Savings Time) to be displayed when daylight saving (summer) time is in effect
- recurring—Indicates that summer time should start and end on the specified days every year
- *startWeekNumber*—DST start week of the month (1–5)
- *startWeekEnum*—First week in month (first); or last week in month (last)
- *startDay*—DST start day of the week (Sunday, Monday, …)
- *startMonth*—DST start month (January, February, …)
- *startTime*—DST start time (24-hour format) in hours and minutes (hh:mm)
- *stopWeekNumber*—DST stop week of the month (1–5)
- *stopWeekEnum*—First week in month (first); or last week in month (last)
- *stopDay*—DST stop day of the week
- *stopMonth*—DST stop month
- *stopTime*—DST stop time in hours and minutes (hh:mm)
- *dstOffset*—Number of minutes to add during summer time in the range 1–1440; default = 60

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

clock timezone

Description Sets the time zone for display. The **no** version sets the time zone to UTC.

Syntax clock timezone *name hours* [*minutes*]

no clock timezone

- *name*—Name of the time zone to be displayed when Standard time is in effect, such as EST or PST.
- *hours*—Hours offset from UTC (-23, -22 … 23)
- *minutes*—Minutes offset from UTC (0–59)

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

color

Description Defines a policy rule that assigns a color to packets defined in the current classifier control list. The **no** version removes the rule from the policy list; the **suspend** version temporarily suspends the policy rule; the **no suspend** version resumes application of a suspended rule.

NOTE: This command replaces the Policy List Configuration mode version of the **color** command, which may be removed completely in a future release.

Syntax [no] [suspend] color { green | yellow | red }

- green—Assigns green color to packets; highest precedence
- yellow—Assigns yellow color to packets; intermediate precedence
- red—Assigns red color to packets; lowest precedence

Mode Classifier Group Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Hierarchical Rate Limits Overview
- Policy Rule Precedence

color-aware

Description Configures rate-limit profile to operate in color-aware mode. (Supported only on hierarchical rate limits.) Color-aware rate limits can change the algorithm used depending on the color of the incoming packet, which might have been set in the previous rate limit, in a policy action, or in an earlier policy. The **no** version restores the default value, which is not color-aware.

Syntax [no] color-aware

Mode Rate Limit Profile Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

Related Topics

- Creating a Two-Rate Rate-Limit Profile

color-mark-profile

Description Translates the packet color (independent of its type) to a type-dependent mark (for ToS or EXP), which is applied to a packet after it has exited a rate-limit hierarchy. If translation is not configured for a color, then packets of that color are not changed. The **no** version deletes the color-mark profile.

Syntax [no] [ip | ipv6 | mpls] color-mark-profile *profileName*

- *profileName*—Name of the rate-limit profile to be used in a policy (up to 40 alphanumeric characters)

Mode Color Mark Profile Configuration, Global Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

Related Topics

- Hierarchical Rate Limits Overview
- Policy Rule Precedence

committed-action

Description Sets the action for packets conforming to the committed rate and committed burst size and conforming to the exceed rate and exceed burst size for a rate-limit profile. The **no** version restores the value to the default value, drop.

Syntax For IP and IPv6 rate-limit profiles:
[no] committed-action { drop | transmit | mark *markVal* }

For L2TP rate-limit profiles:
[no] committed-action { drop | transmit }

For MPLS rate-limit profiles:
[no] committed-action { drop | transmit | mark-exp *expValue* }

For hierarchical rate-limit profiles:
[no] committed-action { drop | transmit [conditional | unconditional | final] }

- drop—Drops the packet
- transmit—Transmits the packet; for hierarchical rate limits:
  - conditional—Packets must pass the next rate limit
  - unconditional—Packets take resources, but are not affected by the rest of the hierarchy
  - final—Packets exit the hierarchy at rate limit
- *markVal*—Value in the range 0–255
- *expValue*—EXP bit value in the range 0–7

Mode Rate Limit Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
conditional, **unconditional**, and **final** keywords added in JUNOSe Release 7.2.0.

Related Topics

- Creating a Two-Rate Rate-Limit Profile

committed-burst

Description Sets the committed burst for a rate limit profile. The **no** version restores the default value, 100 ms; if 100ms is less than 8K, then 8K (8192).

Syntax committed-burst { *size* | millisecond *milliseconds* }

no committed-burst

- *size*—Size in bytes in the range 1–4294967295
- *milliseconds*—Milliseconds in the range 1–10000

Mode Rate Limit Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
milliseconds variable added in JUNOSe Release 8.1.0.

Related Topics

- Creating a Two-Rate Rate-Limit Profile

committed-drop-threshold

Description Configures the threshold above which committed-drop-events are logged. The **no** version removes the threshold.

Syntax committed-drop-threshold *committedDropThreshold*

no committed-drop-threshold

- *committedDropThreshold*—Bits per second in the range 0–1073741824

Mode Statistics Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring Event Statistics

committed-length

Description Sets minimum and maximum constraints for the queue's committed lengths. The **no** version removes constraints on the queue's committed length.

Syntax committed-length *minimumCommittedLength* [*maximumCommittedLength*]

no committed-length

- *minimumCommittedLength*—Range 0–1073741824
- *maximumCommittedLength*—Range 0–1073741824

Mode Queue Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring Queue Profiles to Manage Buffers and Thresholds

committed-rate

Description Sets the committed rate for a rate-limit profile as a specified value or as a percentage of a reference rate defined in the specified policy parameter. The **no** version restores the default value, 0.

Syntax committed-rate { *rate* | *parameterName* percentage *percentValue* }

no committed-rate

- *rate*—Rate in bits per second in the range 0–4294967295
- *parameterName*—Name of policy parameter up to 40 characters
- *percentValue*—Percentage in the range 0–100

Mode Rate Limit Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
parameterName and *percentValue* variables added in JUNOSe Release 8.1.0.

Related Topics

- Creating a Two-Rate Rate-Limit Profile
- Setting the Committed Rate for a Rate-Limit Profile

committed-threshold

Description Specifies the committed queue thresholds and maximum drop probability. The **no** version removes committed threshold.

Syntax committed-threshold { percent *MinThresholdPercent MaxThresholdPercent* | *MinThresholdBytes MaxThresholdBytes* } *MaxDropProbability*

no committed-threshold

- percent—Specifies committed queue thresholds as percentages
- *MinThresholdPercent*—Minimum queue threshold as a percentage of queue length
- *MaxThresholdPercent*—Maximum queue threshold as a percentage of queue length
- *MinThresholdBytes*—Minimum queue threshold in bytes
- *MaxThresholdBytes*—Maximum queue threshold in bytes
- *MaxDropProbability*—Maximum drop probability

Mode Drop Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring RED
- Configuring WRED

common-name

Description Specifies a common name used to generate certificate requests. The **no** version removes the common name.

Syntax [no] common-name *commonName*

- *commonName*—Name of up to 60 characters

Mode IPSec Identity Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

configure

Description Enters Global Configuration mode. There is no **no** version.

NOTE: This command is not allowed for a short time after a warm restart (warm switchover) occurs. This behavior allows some applications time to complete their warm-restart initialization. However, if the warm-restart does not complete in 5 minutes, the warm-start is cancelled and configuration access is restored.

Syntax configure [terminal | file [*fileName*] [verbose | show-progress [*dotPeriod*]]]

- terminal—Enables manual configuration from a terminal
- file—Configures the router from a script file
- *fileName*—Script file to execute
- verbose—Echoes each command as the script is executed
- show-progress—Displays a ". during script execution
- *dotPeriod*—Number of commands executed before a ". is displayed; default value is 100

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

confirmations explicit

Description Requires the user to enter **y**, **ye**, or **yes** to confirm a prompt, and to enter **n** or **no** to deny a prompt. The **no** version restores the default state, which permits pressing <Enter> or <y> to confirm a prompt and entering any other characters to deny a prompt.

Syntax [no] confirmations explicit

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

conformed-action

Description Sets the action for packets not conforming to the committed rate and committed burst size, but conforming to the peak rate and peak burst size for a rate-limit profile. The **no** version restores the value to the default value, drop.

Syntax For IP and IPv6 rate-limit profiles:
[no] conformed-action { drop | transmit | mark *markVal* }

For L2TP rate-limit profiles:
[no] conformed-action { drop | transmit }

For MPLS rate-limit profiles:
[no] conformed-action { drop | transmit | mark-exp *expValue* }

For hierarchical rate-limit profiles:
[no] conformed-action { drop | transmit [conditional | unconditional | final] }

- drop—Drops the packet
- transmit—Transmits the packet; for hierarchical rate limits:
  - conditional—Packets must pass the next rate limit
  - unconditional—Packets take resources, but are not affected by the rest of the hierarchy
  - final—Packets exit the hierarchy at rate limit
- *markVal*—Value in the range 0–255
- *expValue*—EXP bit value in the range 0–7

Mode Rate Limit Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Creating a Two-Rate Rate-Limit Profile

conformed-drop-threshold

Description Configures the threshold above which conformed-drop-events are logged. The **no** version removes the threshold.

Syntax conformed-drop-threshold *conformedDropThreshold*

no conformed-drop-threshold

- *conformedDropThreshold*—Bits per second in the range 0–1073741824

Mode Statistics Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
conditional, **unconditional**, and **final** keywords added in JUNOSe Release 7.2.0.

Related Topics

- Configuring Event Statistics

conformed-fraction

Description Sets the percentage of the total queue that can be occupied before dropping conformed packets. The **no** version returns the conformed fraction to its default setting.

Syntax conformed-fraction *conformedFraction*

no conformed-fraction

- *conformedFraction*—Percentage in the range 0–100; default value is 50

Mode Queue Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring Queue Profiles to Manage Buffers and Thresholds

conformed-length

Description Sets minimum and maximum constraints for the queue's conformed lengths. The **no** version removes constraints on the queue's conformed length.

Syntax conformed-length *minimumConformedLength* [*maximumConformedLength*]

no conformed-length

- *minimumConformedLength*—Number in the range 0–1073741824
- *maximumConformedLength*—Number in the range 0–1073741824

Mode Queue Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring Queue Profiles to Manage Buffers and Thresholds

conformed-threshold

Description Specifies the conformed queue thresholds and maximum drop probability. The **no** version removes conformed threshold.

Syntax conformed-threshold { percent *MinThresholdPercent MaxThresholdPercent* | *MinThresholdBytes MaxThresholdBytes* } *MaxDropProbability*

no conformed-threshold

- percent—Specifies conformed queue thresholds as percentages
- *MinThresholdPercent*—Minimum queue threshold as a percentage of queue length
- *MaxThresholdPercent*—Maximum queue threshold as a percentage of queue length
- *MinThresholdBytes*—Minimum queue threshold in bytes
- *MaxThresholdBytes*—Maximum queue threshold in bytes
- *MaxDropProbability*—Maximum drop probability

Mode Drop Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring RED
- Configuring WRED

control-plane

Description Enters Control Plane Configuration mode. There is no **no** version.

Syntax control-plane

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.0.0.

Related Topics

- Rate-Limiting SRP Traffic Flows

controlled-interface-type

Description Assigns controlled-interface types to a QoS parameter definition. Controlled-interface types specify the types of logical interfaces whose queues and nodes can be controlled by instances of the parameter definition. You can specify up to four controlled-interface types for each parameter definition. The **no** version removes the controlled-interface type from the parameter definition.

Syntax controlled-interface-type *controlledInterfaceType*

no controlled-interface-type { *controlledInterfaceType* | all }

- *controlledInterfaceType*—One of the following controlled-interface types: atm, atm-vc, atm-vp, bridge, ethernet, fr-vc, ip, ip-tunnel, ipv6, l2tp-session, l2tp-tunnel, lsp, serial, svlan, server-port, vlan
- all—Removes all controlled-interface types

Mode QoS Parameter Definition

Release Information Command introduced in JUNOSe Release 7.1.0.

Related Topics

- Configuring a Basic Parameter Definition for QoS Administrators

controller e3

Description Accesses Controller Configuration mode so that you can configure an E3 controller. There is no **no** version.

Syntax controller e3 *interfaceSpecifier*

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

controller sonet

Description Selects an interface on which you want to configure SONET or SDH. There is no **no** version.

Syntax controller sonet *interfaceSpecifier*

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

controller t3

Description Accesses Controller Configuration mode so that you can configure a T3 controller. There is no **no** version.

Syntax controller t3 *interfaceSpecifier*

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

convergence-factor

Description Specifies the convergence factor for all simple shared shapers on the router. The convergence factor determines how quickly the dynamic shaping rate converges with the calculated dynamic shaping rate, and is expressed as a percentage of the available bandwidth. The **no** version removes the specified convergence factor from all simple shared shapers on the router.

Syntax convergence-factor *convergenceFactor*

no convergence-factor

- *convergenceFactor*—Percentage value in the range 0–99; default value is 50

Mode QoS Shared Shaper Control Configuration

Release Information Command introduced in JUNOSe Release 8.0.0.

Related Topics

- Configuring Simple Shared Shaper Algorithm Variables

copy

Description Copies a local or network file. There is no **no** version.

NOTE: You cannot change the extension of a file, for example, from .mac to .scr. You can copy software release (.rel) files only *to* the router (download); you cannot copy them *from* the router (upload). See *Copying and Redirecting Files* in *JUNOSe System Basics Configuration Guide, Chapter 5, Managing the System*, for detailed information on file type usage with the **copy** command.

Syntax copy [*sourcePath*]*sourceFilename* [*destinationPath*]*destinationFilename* [force]

- *sourcePath*—Path to the source in the format:
  hostName: | *deviceName*: | /incoming/*subdirectory*/ | /outgoing/*subdirectory*/
  - *hostName*:—Name of the network host
  - *deviceName*:—Name of the device specifying a flash card slot
    - disk0—Specifies flash card slot 0 on the primary SRP module; if no device is specified for the primary SRP module, then disk0 is used
    - disk1—Specifies flash card slot 1 on the primary SRP module; source and destination file types must be .dmp; supported only on the E120 and E320 routers
    - standby—Specifies flash card slot 0 on the standby SRP module for backward compatibility
    - standby-disk0—Specifies flash card slot 0 on the standby SRP module
    - standby-disk1—Specifies flash card slot 1 on the standby SRP module; source and destination file types must be .dmp; supported only on the E120 and E320 routers
  - incoming—Specifies the router's incoming FTP directory
  - *subdirectory*—Name of a subdirectory on the router's FTP server. If the subdirectory does not exist, the router creates it.
  - outgoing—Specifies the router's outgoing FTP directory
- *sourceFilename*—Name of the the source file
- *destinationPath*—Path to the destination in the format:
  networkPath | /incoming/*subdirectory* | /outgoing/*subdirectory*
  - *networkPath*—Path to the network host
  - incoming—Specifies the incoming router's FTP directory
  - *subdirectory*—Name of a subdirectory on the ERX router's FTP server. If the subdirectory does not exist, the router creates it.
  - outgoing—Specifies the router's outgoing FTP directory

- *destinationFilename*—Name of the destination file
- force—Forces a copy, even when the destination file already exists; if a file is marked by the file system as in use because it is required for the current operation or configuration, the **force** keyword cannot force a copy of that file

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.
hostName and *deviceName* variables added in JUNOSe Release 7.2.0.

copy running-configuration

Description Saves the configuration currently running on the router to a local or remote (network) router configuration file (.cnf). Available only if the router is in Automatic Commit mode. There is no **no** version.

Syntax copy running-configuration *destination* [force]

- *destination*—Destination filename (*.cnf)
- force—Creates a copy even if the destination file already exists

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

copy running-configuration startup-configuration

Description Saves all outstanding (unsaved) configuration changes to nonvolatile storage; an exact alias of the **write memory** command. Available if the router is in either Automatic Commit mode or Manual Commit mode. If you issue this command from Automatic Commit mode, the CLI notifies you that the command is not necessary, but allows you to proceed. This command is prevented during the high availability initialization state. If the command is issued during this state, the CLI notifies you of the state and requests that you try again later. There is no **no** version.

Syntax copy running-configuration startup-configuration

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

copy startup-configuration

Description Copies the previously saved startup configuration to a local or remote (network) router configuration (*.cnf) file. Available only if the router is in Manual Commit mode. If you have made but not saved any configuration changes, those changes are not in the startup configuration. There is no **no** version.

Syntax copy startup-configuration *destination* [force]

- *destination*—Destination filename (*.cnf)
- force—Creates a copy even if the destination file already exists

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

cost

Description Specifies a cost metric for an OSPF remote-neighbor interface. Used in the calculation of the SPF routing table. The **no** version restores the default value.

Syntax cost *intfCost*

no cost

- *intfCost*—Link-state metric cost; a number in the range 1–65535; default value is 10 if there is no route to the remote neighbor; otherwise, the default is calculated based on the bandwidth of the physical interface used to reach the remote neighbor and the OSPF auto-cost reference bandwidth

Mode Remote Neighbor Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

country

Description Specifies a country name used to generate certificate requests. The **no** version removes the country name.

Syntax [no] country *countryCode*

- *countryCode*—Two-character country name

Mode IPSec Identity Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

crc

Description Sets the size of the cyclic redundancy check. CRC is an error-checking technique that uses a calculated numeric value to detect errors in transmitted data. 16 and 32 indicate the number of check digits per frame that are used to calculate the FCS. Both the sender and receiver must use the same setting. The default value is 16. The **no** version restores the value to the default.

Syntax crc { 16 | 32 | none }

no crc

- 16—Specifies CRC-16, which transmits streams of 8-bit characters and generates 16-bit check bits per frame
- 32—Specifies CRC-32, which transmits longer streams at faster rates and therefore provides better ongoing error detection
- none—Disables CRC checking

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

crl

Description Controls how the router checks certificate revocation lists (CRLs) when determining whether to accept a peer's certificates. The **no** version restores the default setting.

Syntax crl { ignored | optional | required }

no crl

- ignored—Specifies that the router will not try to find or use CRLs
- optional—Specifies that the router will try to find a CRL. If a CRL is found, the peer certificate must not appear in the CRL. If no CRL is found, the peer can still authenticate; this is the default.
- required—Specifies that the router must find a valid CRL; the CRL must be current, and the peer certificate must not appear in the CRL

Mode IPSec CA Identity Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

crypto key dss

Description Controls SSH server daemon and creation/deletion of SSH server host key. This command is not displayed by the **show config** command. There is no **no** version.

Syntax crypto key { generate | zeroize } dss

- generate—Creates the SSH server host key and enables the daemon
- zeroize—Deletes the SSH server host key and stops the SSH daemon if it is running. Issuing this command terminates any active client sessions. The next time the router boots after this command is issued, the SSH server daemon is not started.

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

data-character-bits

Description Sets the number of data bits available for characters for all sessions on the specified vty lines. There is no **no** version.

Syntax data-character bits { 7 | 8 }

- 7—Specifies 7 data bits per character; this setting supports only characters in the standard ASCII set
- 8—Specifies 8 data bits per character; default setting, supports the full set of 8-bit international characters

Mode Line Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

dead-interval

Description Sets the time period that the OSPF router waits without seeing hello packets from a remote neighbor before declaring the neighbor to be down. The **no** version restores the default value.

Syntax dead-interval *deadInterval*

no dead-interval

- *deadInterval*—Number in the range 1–65535 seconds; default value is 40 seconds

Mode Remote Neighbor Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

deadtime

Description Configures the amount of time (in minutes) that a server is marked as unavailable if a request times out for the configured retry count. If a server fails to answer a request, it is marked "unavailable" by the router. The router does not send requests to the server for the configured time. The **no** version restores the default value, 0, turning off the deadtime mechanism.

Syntax deadtime *recovery*

no deadtime

- *recovery*—Amount of time that a server is marked as unavailable in the range 0–30 (minutes); default value is 0

Mode RADIUS Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

debounce-time

Description Sets the interval to wait before bringing up a RIP interface that was brought down. The **no** version restores the default value, 10.

Syntax debounce-time *interval*

no debounce-time

- *interval*—Seconds in the range 0–60

Mode Address Family Configuration, Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

debug ip bgp

Description Shows information about the selected variable. The **no** version disables the display.

Syntax debug ip bgp [in | out] [*peerAddress* [*peerAddressMask*]] [*bgpLog*] [router *routerName*] [filtering-router *filteringRouterName*] [*accessClassName*] [route-map *mapName*] [severity { *severityValue* | *severityNumber* }] [verbosity *verbosityLevel*] [secondary]

no debug ip bgp [in | out] [*peerAddress* [*peerAddressMask*]] [*bgpLog*] [router *routerName*] [filtering-router *filteringRouterName*] [*accessClassName*] [route-map *mapName*]

- in—Displays information for inbound events
- out—Displays information for outbound events
- *peerAddress*—IP address of BGP peer for which information is displayed
- *peerAddressMask*—Network mask of BGP peer for which information is displayed
- *bgpLog*—BGP log of interest; one of the following options:
  - dampening—BGP dampening event; route is suppressed or no longer suppressed by route-flap dampening
  - events—BGP finite state machine events and transitions
  - keepalives—BGP keepalive message events
  - next-hops—BGP next hop events
  - updates—BGP routing table update events

- *routerName*—Name of the virtual router that owns the BGP router for which information is being displayed
- *filteringRouterName*—Name of the virtual router that owns the access class and route map parameters
- *accessClassName*—Name of an access list to filter output
- *mapName*—Name of a route map to filter output
- severity—Specifies the minimum severity of the log messages displayed for the selected category; described either by a descriptive term—*severityValue*—or by a corresponding number—*severityNumber*—in the range 0–7; the lower the number, the higher the priority:
  - emergency *or* 0—System unusable
  - alert *or* 1—Immediate action needed
  - critical *or* 2—Critical condition exists
  - error *or* 3—Error condition
  - warning *or* 4—Warning condition
  - notice *or* 5—Normal but significant condition
  - info *or* 6—Informational message
  - debug *or* 7—Debug message
- *verbosityLevel*—Verbosity of the log category's messages; can be any of the following:
  - low—Terse
  - medium—Moderate detail
  - high—Verbose
- secondary—Indicates that the specified filter conditions for the log are imposed in addition to any that were previously specified; if omitted, the specified filter conditions replace any that were previously specified

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

debug ip mbgp

Description Shows information about the selected variable. The **no** version disables the display.

Syntax debug ip mbgp [in | out] [*peerAddress* [*peerAddressMask*]] [*bgpLog*] [router *routerName*] [filtering-router *filteringRouterName*] [*accessClassName*] [route-map *mapName*] [severity { *severityValue* | *severityNumber* }] [verbosity *verbosityLevel*] [secondary]

no debug ip mbgp [in | out] [*peerAddress* [*peerAddressMask*]] [*bgpLog*] [router *routerName*] [filtering-router *filteringRouterName*] [*accessClassName*] [route-map *mapName*]

- in—Displays information for inbound events
- out—Displays information for outbound events
- *peerAddress*—IP address of BGP peer for which information is displayed
- *peerAddressMask*—Network mask of BGP peer for which information is displayed
- *bgpLog*—BGP log of interest; one of the following options:
  - dampening—BGP dampening event; route is suppressed or no longer suppressed by route-flap dampening
  - events—BGP finite state machine events and transitions
  - keepalives—BGP keepalive message events
  - next-hops—BGP next hop events
  - updates—BGP routing table update events
- *routerName*—Name of the virtual router that owns the BGP router for which information is being displayed
- *filteringRouterName*—Name of the virtual router that owns the access class and route map parameters
- *accessClassName*—Name of an access list to filter output
- *mapName* —Name of a route map to filter output
- severity—Specifies the minimum severity of the log messages displayed for the selected category. See the **debug ip bgp** command.
- *verbosityLevel*—Verbosity of the log category's messages. See the **debug ip bgp** command.
- secondary—Indicates that the specified filter conditions for the log are imposed in addition to any that were previously specified; if omitted, the specified filter conditions replace any that were previously specified

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

debug ip ospf

Description Shows information about the selected variable. The **no** version disables the display.

Syntax debug ip ospf *ospfLog* [severity { *severityValue* | *severityNumber* }] [verbosity *verbosityLevel*]

no debug ip ospf *ospfLog*

- *ospfLog*—OSPF log of interest; one of the following options:
  - adj—OSPF adjacency events
  - elect-dr—OSPF designated router election
  - events—OSPF general events
  - lsa—OSPF link-state advertisements events
  - neighbor—OSPF neighbor state machine
  - packets-rcvd—OSPF packets received
  - packets-sent—OSPF packets sent
  - route—OSPF route events
  - spf—All OSPF shortest path first calculation events
  - spf-ext—OSPF shortest path first external route calculation events
  - spf-inter—OSPF shortest path first interarea route calculation events
  - spf-intra—OSPF shortest path first intra-area route calculation events
- severity—Specifies the minimum severity of the log messages displayed for the selected category. See the **debug ip bgp** command.
- *verbosityLevel*—Verbosity of the log category's messages. See the **debug ip bgp** command.

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

debug ip pim

Description Shows information about the selected variable. The **no** version disables the display.

Syntax The syntax differs for PIM Dense Mode and PIM Sparse Mode.

PIM Dense Mode:

debug ip pim { *pimLog* [severity { *severityValue* | *severityNumber* }] [verbosity *verbosityLevel*] | *switchState groupAddress sourceAddress* | dense-mode { on | off } }

PIM Sparse Mode:

debug ip pim { *pimLog* [severity { *severityValue* | *severityNumber* }] [verbosity *verbosityLevel*] | *switchState groupAddress sourceAddress* | sparse-mode { on | off | sg-state [group *groupAddress* [source *sourceAddress*] | rp *rpAddress*] [count] } }

no debug ip pim *pimLog*

- *pimLog*—PIM log of interest; one of the following options:
  - autoRp-rcvd—Auto-RP packets received
  - autoRP-sent—Auto-RP packets sent
  - engineering—PIM engineering
  - hellos-rcvd—PIM hello messages received
  - hellos-sent—PIM hello messages sent
  - packets—PIM packets received and sent
  - packets-rcvd—PIM packets received
  - packets-sent—PIM packets sent
- severity—Specifies the minimum severity of the log messages displayed for the selected category. See the **debug ip bgp** command.
- *verbosityLevel*—Verbosity of the log category's messages. See the **debug ip bgp** command.
- *switchState*—Switches from one type of tree to another
  - rpt-switch—Switch from a shortest-path tree to a shared path tree
  - spt-switch—Switch from a shared-path tree to a shortest path tree
- *groupAddress*—IP address of the multicast group
- *sourceAddress*—IP address of the multicast source
- on—Turns on the specified PIM mode on all virtual routers

- off—Turns off the specified PIM mode on all virtual routers
- sg-state—Displays information about the relationship between a source, multicast group, and RP router
- rp—Displays information about the relationships between sources, groups, and the specified RP router
- *rpAddress*—Address of the RP router
- count—Displays one of the following
  - (with no optional keywords) number of relationships between a source, multicast group, and RP router
  - (with the **group** keyword) number of sources associated with the multicast group for PIM sparse mode
  - (with the **source** and **group** keywords) number of source-group pairs for PIM sparse mode
  - (with the **rp** keyword) number of source-group pairs associated with the RP router for PIM sparse mode

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

debug ip rip

Description Shows information about the selected variable. The **no** version disables the display.

Syntax debug ip rip *ripLog* [severity { *severityValue* | *severityNumber* }] [verbosity *verbosityLevel*]

no debug ip rip *ripLog*

- *ripLog*—RIP log of interest; one of the following options:
  - events—General RIP events, such as removing RIP from an interface or creating the RIP process
  - route—Events associated with two RIP routers exchanging routes
- severity—Specifies the minimum severity of the log messages displayed for the selected category. See the **debug ip bgp** command.
- *verbosityLevel*—Verbosity of the log category's messages. See the **debug ip bgp** command.

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

debug ipv6 ospf

Description Shows information about the selected variable. The **no** version disables the display.

Syntax debug ipv6 ospf *ospfLog* [severity { *severityValue* | *severityNumber* }] [verbosity *verbosityLevel*]

no debug ipv6 ospf *ospfLog*

- *ospfLog*—OSPF log of interest; one of the following options:
  - adj—OSPF adjacency events
  - elect-dr—OSPF designated router election
  - events—OSPF general events
  - lsa—OSPF link-state advertisements events
  - neighbor—OSPF neighbor state machine
  - packets-rcvd—OSPF packets received
  - packets-sent—OSPF packets sent
  - route—OSPF route events
  - spf—All OSPF shortest path first calculation events
  - spf-ext—OSPF shortest path first external route calculation events
  - spf-inter—OSPF shortest path first interarea route calculation events
  - spf-intra—OSPF shortest path first intra-area route calculation events
- severity—Specifies the minimum severity of the log messages displayed for the selected category. See the **debug ip bgp** command.
- *verbosityLevel*—Verbosity of the log category's messages. See the **debug ip bgp** command.

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

debug ipv6 pim

Description Shows information about the selected variable. The **no** version disables the display.

Syntax debug ipv6 pim
{ *pimLog* [severity { *severityValue* | *severityNumber* }] [verbosity *verbosityLevel*] |
switchState groupAddress sourceAddress |
dense-mode { on | off } |
sparse-mode { on | off | sg-state [group *groupAddress*
[source *sourceAddress*] | rp *rpAddress*] [count] } }

no debug ipv6 pim *pimLog*

- *pimLog*—PIM log of interest; one of the following options:
  - autoRp-rcvd—Auto-RP packets received
  - autoRP-sent—Auto-RP packets sent
  - engineering—PIM engineering
  - hellos-rcvd—PIM hello messages received
  - hellos-sent—PIM hello messages sent
  - packets—PIM packets received and sent
  - packets-rcvd—PIM packets received
  - packets-sent—PIM packets sent
- severity—Specifies the minimum severity of the log messages displayed for the selected category. See the **debug ip bgp** command.
- *verbosityLevel*—Verbosity of the log category's messages. See the **debug ip bgp** command.
- *switchState*—Switches from one type of tree to another
  - rpt-switch—Switch from a shortest-path tree to a shared path tree
  - spt-switch—Switch from a shared-path tree to a shortest path tree
- *groupAddress*—IPv6 address of the multicast group
- *sourceAddress*—IPv6 address of the multicast source
- on—Turns on the specified PIM mode on all virtual routers
- off—Turns off the specified PIM mode on all virtual routers
- sg-state—Displays information about the relationship between a source, multicast group, and RP router

- rp—Displays information about the relationships between sources, groups, and the specified RP router
- *rpAddress*—Address of the RP router
- count—Displays one of the following
  - (with no optional keywords) number of relationships between a source, multicast group, and RP router
  - (with the **group** keyword) number of sources associated with the multicast group for PIM sparse mode
  - (with the **source** and **group** keywords) number of source-group pairs for PIM sparse mode
  - (with the **rp** keyword) number of source-group pairs associated with the RP router for PIM sparse mode

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

debug isis

Description Displays debug-related information about selected IS-IS log parameters. This command manipulates the same log as the Global Configuration **log** commands. The **no** version disables debugging display.

Syntax debug isis *isisLog* [severity { *severityValue* | *severityNumber* }] [verbosity *verbosityLevel*]

no debug isis *isisLog*

- *isisLog*—IS-IS log of interest; one of the following options:
  - adj-packets—IS-IS adjacency-related packets, such as hello packets sent and IS-IS received adjacencies going up and down
  - mpls traffic-eng advertisements—MPLS traffic-engineering agent advertisements
  - mpls traffic-eng agents—MPLS traffic-engineering agents
  - snp-packets—IS-IS CSNPs/PSNPs
  - spf-events—Shortest path first events
  - spf-statistics—SPF timing and statistic data
  - spf-triggers—SPF triggering events
  - update-packets—Update-related packets
- severity—Specifies the minimum severity of the log messages displayed for the selected category. See the **debug ip bgp** command.
- *verbosityLevel*—Verbosity of the log category's messages. See the **debug ip bgp** command.

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

default-fields peer

Description Specifies the fields that will appear by default in the output of subsequently issued **show ip bgp summary** and **show bgp ipv6 summary** commands. The **no** version removes the fields from the output.

Syntax [no] default-fields peer *fieldOptions*

- *fieldOptions*—Field(s) to be displayed, in the format all | [dynamic | intro | last-reset-reason | messages-received | messages-sent | more-in-queue | peer-type | prefixes-received | remote-as | rib-version | send-queue-length| state | times-up | up-down-time | updates-received | updates-sent]*
  - all—All available information; not recommended, because this information for each network does not fit on a single line and is difficult to read
  - dynamic—Nature of peer, dynamic or not
  - intro—Introductory information about the state of various BGP attributes; this information is displayed only if you specify this keyword
  - last-reset-reason —Reason for most recent reset
  - messages-received—Total number of messages received from the peer
  - messages-sent—Total number of messages sent to the peer
  - more-in-queue—Status indicating whether any messages are waiting to be sent to this peer
  - peer-type—Type of BGP peer: internal, external, or confederation
  - prefixes-received—Number of unique prefixes received from the peer
  - remote-as—Remote AS number of the peer
  - rib-version—Last RIB version queued to be sent to this peer
  - send-queue-length—Number of messages queued to be sent to this peer
  - state—State of the BGP session
  - times-up—Number of times the session has been established
  - up-down-time—How long the session has been up or down
  - updates-received—Number of update messages received from the peer
  - updates-sent—Number of update messages sent to the peer
  - *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

default-fields route

Description Specifies the fields that will appear by default in the output of any subsequently issued **show ip bgp** or **show bgp ipv6** command that displays routes (except for the **show ip bgp summary** or **show bgp ipv6 summary** commands). The **no** version removes the fields from the output.

Syntax [no] default-fields route *fieldOptions*

- *fieldOptions*—Field(s) to be displayed, in the format all | [afi | aggregator | as-path | atomic-aggregate | best | clusters | communities | extended-communities | imported | intro | in-label | loc-pref | med | next-hop | next-hop-cost | origin | originator-id | out-label | peer | peer-type | rd | safi | stale | unknown-types | weight]*
  - all—All available information; not recommended, because this information for each network does not fit on a single line and is difficult to read
  - afi—Address family identifier
  - aggregator—AS number and IP address of aggregator
  - as-path—AS path through which this route bas been advertised
  - atomic-aggregate—Whether the atomic aggregate attribute is present
  - best—Whether this is the best route for the prefix
  - clusters—List of cluster IDs through which the route has been advertised
  - communities—Community number associated with the route
  - extended-communities—Extended community
  - imported—Whether the route was imported
  - intro—Introductory information about the state of various BGP attributes; this information is displayed only if you specify this keyword
  - in-label—MPLS label for the route; the label received with incoming MPLS frames
  - loc-pref—Local preference for the route
  - med—Multiexit discriminator for the route
  - next-hop—IP address of the next router that is used when forwarding a packet to the destination network
  - next-hop-cost—Whether the indirect next hop of the route is unreachable, if not, displays IGP cost to the indirect next hop
  - out-label—MPLS label for the route; the label with outgoing MPLS frames
  - peer—IP address of BGP peer from which route was learned
  - peer-type—Type of BGP peer: internal, external, or confederation
  - origin—Origin of the route
  - originator-id—Router ID of the router in the local AS that originated the route

- rd—Route distinguisher
- safi—Subsequent address family identifier
- stale—Route that has gone stale due to peer restart
- unknown-types—Attribute codes for unknown path attributes
- weight—Weight of the route
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

default-information originate

Description Enables BGP to advertise a default route (0.0.0.0/0) if the default route exists in the IP routing table. If the default route does not exist, you must configure it using the **ip route** command.

When you issue this command in the route-target address family, BGP advertises the Default-RT-MEM-NLRI route (0:0:0/0)

For IS-IS, OSPF, and RIP, configures a default route for the distribution of default information into the respective routing domain. IS-IS creates the default route (0.0.0.0/0) if it does not exist in the IP routing table. OSPF and RIP do not create the default route unless you use the **always** option.

For all protocols, the **no** version disables advertisement of the default route. The syntax varies with the protocol.

Syntax For BGP:

default-information originate [route-map *mapTag*]

no default-information originate [route-map [*mapTag*]]

For IS-IS:

[no] default-information originate [route-map *mapTag*]

For RIP:

[no] default-information originate [route-map *mapTag*]

default-information originate always

For OSPF:

[no] default-information originate [always | metric *metricValue* | metric-type 1 | metric-type 2 | route-map *mapTag*]*

- *mapTag*—Name of route map used to import the default route; string of up to 32 characters
- always—Creates the default route, so that it is always advertised
- *metricValue*—Sets the metric for the default route; in the range 0–4294967295
- metric-type 1—Sets the default route's metric type to OSPF external type 1
- metric-type 2—Sets the default route's metric type to OSPF external type 2
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Address Family Configuration, Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

default-metric

Description Configures RIP to use this metric on redistributed routes on all subsequently created interfaces. The **no** version restores the default value, 0.

Syntax [no] default-metric *metricValue* [*interfaceType interfaceSpecifier*]

- *metricValue*—Metric to apply to routes; in the range 1–16
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Address Family Configuration, Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

default-router

Description Specifies the IP address of the router that the subscriber's computer will use for traffic destined for locations beyond the local subnet. The default router must be on the same subnet as the local server pool addresses configured with the **network** command. The **no** version removes the association between the address pool and the router.

Syntax default-router *ipAddressPrimary* [*ipAddressSecondary*]

no default-router

- *ipAddressPrimary*—IP address of preferred router
- *ipAddressSecondary*—IP address of secondary router

Mode DHCP Local Pool Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

default-upper-type mlppp

Description Specifies that L2TP creates an MLPPP interface for the current LNS session when full LCP proxy data is not available. The **no** version deletes the MLPPP specification.

Syntax default-upper-type mlppp

no default-upper-type

Mode L2TP Destination Profile Host Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

delete

Description Deletes a directory or file in nonvolatile storage. There is no **no** version.

NOTE: See *Deleting Files* in *JUNOSe System Basics Configuration Guide, Chapter 5, Managing the System*, for detailed information on file type usage with the **delete** command.

Syntax delete { *filename* | directory *directoryName* [force] }

- *filename*—Name of the local file you are deleting (for example, system1.cnf)
- *directoryName*—Path of a directory
- force—Forces deletion of directory even when it is not empty; however, if a file in that directory is marked by the file system as in use because it is required for the current operation or configuration, the **force** keyword cannot force a deletion of the directory

Mode Boot, Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

delta-sampling

Description Specifies delta sampling for the trigger you are configuring. The **no** version returns the trigger to the default sampling method—absolute-value sampling.

Syntax delta-sampling [discontinuity-id *mibId* | discontinuity-id-type { timeStamp | timeTicks }]

no delta-sampling [discontinuity-id]

- discontinuity-id—Specifies a discontinuity MIB ID for the sample. The discontinuity MIB ID monitors the sample for any discontinuity errors during the sample frequency. If a discontinuity error occurs, the router removes the sampling for that interval.
- *mibId*—Object ID of the discontinuity MIB attribute that you want to use for this trigger
- discontinuity-id-type—Specifies a discontinuity ID type (either timeStamp or timeTicks). The discontinuity ID type indicates the time value that you expect for a specific sample.

Mode SNMP Trigger Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

deny

Description Specifies the domain name(s) that are to be denied access to AAA authentication. The **no** version negates the command.

Syntax [no] deny *domainName*

- *domainName*—Name of the domain; maximum of 64 characters

Mode AAA Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

description

Description In Controller Configuration mode, assigns a text description or an alias to a CT3, E3, T3, or SONET/SDH interface. Use the **show controllers e3**, **show controllers sonet**, **show controllers t1**, or **show controllers t3** command to display the description. The **no** version removes the description or alias.

In VRF Configuration mode, assigns a text description or an alias to the VRF. The **no** version removes the description or alias.

NOTE: In Interface Configuration mode, this command has been replaced by the **ip description** command for assigning a description to a static IP interface. This command may be removed completely from Interface Configuration mode in a future release.

Syntax description *name*

no description

- *name*—Text string or alias of up to 256 characters (in Interface Configuration mode) or up to 80 characters (in Controller Configuration mode and VRF Configuration mode)

Mode Controller Configuration, Interface Configuration, VRF Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

dhcp delete-binding

Description Deletes the specified DHCP client bindings. There is no **no** version.

NOTE: This command replaces the deprecated **clear ip dhcp-local binding** and **dhcp-external delete-binding** commands, which may be removed completely in a future release.

Syntax dhcp delete-binding { all | all-local | all-external | all-relay-proxy | *bindingId* }

- all—Specifies all DHCP local server, DHCP external server, and DHCP relay proxy client bindings
- all-local—Specifies all client bindings for DHCP local server
- all-external—Specifies all client bindings for DHCP external server
- all-relay-proxy—Specifies all client bindings for DHCP relay proxy
- *bindingId*—DHCP binding ID for a specific client.

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 8.1.0.

dhcp-external delete-binding

Description Deletes a specific client binding or all bindings from the virtual router's DHCP binding table. There is no **no** version.

NOTE: This command is deprecated and might be removed completely in a future release. The function provided by this command has been replaced by the **dhcp delete-binding** command.

Syntax dhcp-external delete-binding [binding-id *bindingId* | all]

- *bindingId*—DHCP binding ID associated with the user.
- all—Specifies all bindings

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

diag

Description Reboots the SRP module or line module in the specified slot on all E-series routers and performs diagnostic tests. There is no **no** version.

Syntax diag *slotNumber* [*subsystem*] [force]

- *slotNumber*—Number of the chassis slot that contains the SRP module or line module
- *subsystem*—Type of subsystem on the E120 router or the E320 router; use when the specified *slotNumber* is a slot that contains an SRP module
  - srp—Indicates the system controller (SC) on one or both SRP modules; specify this keyword to restart only the portion of the SC on the individual SRP module
  - fabric—Indicates the portion of the switch fabric on the SRP modules; specify this keyword to restart only an individual fabric slice
- force—Specifies that the system manually confirm conflicting conditions when the slot of the active SRP module is specified

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.3.0.

dir

Description Displays information about the files in nonvolatile storage, including name, size, date created, and whether they are in use. There is no **no** version.

NOTE: When high availability is enabled on the router, it is possible that files or file attributes may appear to be unsynchronized when they are not. When enabled, high availability mirrors configuration changes instantly from the active SRP module to the standby SRP module. However, although these changes are reflected immediately in memory, NVS on the standby SRP module is updated at 5-minute intervals.

Syntax dir [*path*] [short]

- *path*—Path to a specific directory
- short—Limits display to file name and creation date

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

disable

Description When used from Privileged Exec mode, exits Privileged Exec mode and returns to User Exec mode.

When used from Router Configuration or Interface Configuration mode in the context of a DVMRP configuration, disables DVMRP on the virtual router or interface. The **no** version reenables DVMRP on the virtual router or interface.

When used from Router Configuration mode in the context of a RIP configuration, disables RIP on the virtual router. The **no** version enables RIP processing on the virtual router.

Syntax To return to User Exec mode:
disable [*level*]

- *level*—One of the following privilege levels; default value is 1
  - 0—Allows the user to execute the **help**, **enable**, **disable**, and **exit** commands
  - 1—Allows the user to execute commands in User Exec mode plus commands at level 0
  - 5—Allows the user to execute Privileged Exec show commands plus the commands at levels 1 and 0
  - 10—Allows the user to execute all commands except support commands, which may be provided by Juniper Networks Customer Service
  - 15—Allows the user to execute support commands

For DVMRP, RIP:
[no] disable

Mode Address Family Configuration (RIP), Interface Configuration (DVMRP only), Privileged Exec, Router Configuration (DVMRP or RIP)

Release Information Command introduced before JUNOSe Release 7.1.0.

disable-autosync

Description Halts automatic synchronization between the primary and standby SRP modules. When high availability is enabled (that is, the high availability state is initializing, active, or pending) this command affects only changes to nonconfiguration files. With high availability enabled, configuration changes are always mirrored to the standby SRP module. The **no** version restores the default situation, in which automatic synchronization runs as a background process every 5 minutes.

Syntax [no] disable-autosync

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

disable-dynamic-redistribute

Description Halts the dynamic redistribution of routes that are initiated by changes to a route map. Supported by DVMRP, BGP, IS-IS, OSPF, and RIP. The **no** version reenables dynamic redistribution of routes.

Syntax [no] disable-dynamic-redistribute

Mode Address Family Configuration, Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

disable-incremental-external-spf

Description Disables incremental external SPF on the router; results in a full SPF when an event occurs to trigger an external SPF. The **no** version reenables incremental external SPF.

Syntax [no] disable-incremental-external-spf

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

disable proxy lcp

Description Disables the proxy LCP parameter for the remote host. The **no** version enables the proxy LCP parameter for the remote host.

Syntax [no] disable proxy lcp

Mode L2TP Destination Profile Host Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

disable-switch-on-error

Description Prevents the redundant SRP module from taking over if the primary SRP module experiences a software failure or if you push the reset button on the primary SRP module. Issue the **sync** command immediately before you issue this command. The **no** version restores the default situation, in which the redundant SRP module takes over if the primary SRP module experiences a failure.

Syntax [no] disable-switch-on-error

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

disconnect-cause

Description Enables an E-series LNS to generate, for the L2TP session to which the L2TP host profile applies, a PPP Disconnect Cause Code attribute value pair (AVP) and include it in all L2TP Call-Disconnect-Notify (CDN) messages that it sends to an LAC. This action provides a mechanism for the LAC to obtain information about the cause of a session disconnection. The **no** version disables generation of the PPP Disconnect Cause Code AVP, which is the default setting.

Syntax [no] disconnect-cause

Mode L2TP Destination Profile Host Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

disconnect ssh

Description Terminates an active SSH session. Use the **show ip ssh** command to determine the session identifier for the session to terminate. There is no **no** version.

Syntax disconnect ssh { vty *vtyId* | *sessionId* }

- *vtyId*—Virtual terminal identifier for VTY where the SSH session resides; use the **show users** command to determine the identifier
- *sessionId*—Integer in the range 0–4294967295 that identifies the session to be terminated

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

discovery-mode

Description Enables ANCP discovery mode. This mode allows RADIUS software to obtain loop parameter information from a connected access node. If discovery mode is disabled, it does not accept topology discovery messages and stops advertising topology discovery capability. It does not affect any other neighbors. The **no** version disables ANCP discovery mode.

Syntax [no] discovery-mode

Mode L2C Neighbor Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

distance

Description Defines an administrative distance for RIP or OSPF routes. A distance of 255 prevents the route from being installed in the routing table. The **no** version either negates a command or restores the command's defaults.

Syntax The options available vary depending on your routing protocol context; that is, on whether you are configuring OSPF or RIP.

For OSPF:

[no] distance { *weight* | ospf { external *distExt* | inter-area *disInter* | intra-area *disIntra* } [external *distExt* | inter-area *distInter* | intra-area *distIntra*]* }

- distance—Weight applied to OSPF routes
- *weight*—Value assigned to OSPF routes that are added to the IP routing table; a number in the range 1–255
- ospf—OSPF routes
- *distExt*—Distance for external type 5 and type 7 routes; a number in the range 1–255
- *disInter*—Distance for interarea routes; a number in the range 1–255
- *disIntra*—Distance for intra-area routes; a number in the range 1–255
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

For RIP:

[no] distance *weight*

- *weight*—Administrative distance assigned to RIP routes added to the IP routing table in the range 0–255; default value is 120

Mode Address Family Configuration (RIP), Router Configuration (OSPF or RIP)

Release Information Command introduced before JUNOSe Release 7.1.0.

distance bgp

Description Sets the administrative distances for BGP routes. A distance of 255 prevents the route from being installed in the routing table. The **no** version restores the default values.

Syntax distance bgp *externalDistance internalDistance localDistance*

no distance bgp [*externalDistance* [*internalDistance* [*localDistance*]]]

- *externalDistance*—Administrative distance for routes external to the AS in the range 1–255; default value is 20
- *internalDistance*—Administrative distance for routes internal to the AS in the range 1–255; default value is 200
- *localDistance*—Administrative distance for local (redistributed) routes in the range 1–255; default value is 200

Mode Address Family Configuration, Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

distance ip

Description Sets the administrative distance for IS-IS routes that are inserted into the IP routing table. A distance of 255 prevents the route from being installed in the routing table. The **no** version restores the default value, 115.

Syntax [no] distance *weight* ip

- *weight*—Administrative distance assigned to IS-IS routes added to the IP routing table in the range 1–255

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

distribute-domain-wide

Description Increases the granularity of routing information within an IS-IS domain by allowing routes to be distributed from level 2 to level 1. This results in more accurate routing between level 1 areas. The **no** version disables command.

Syntax [no] distribute-domain-wide

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

distribute-list

Description Specifies the distribute list, an access list applied to incoming or outgoing RIP route updates. In Remote Neighbor Configuration mode, applies only to a RIP remote-neighbor interface. The **no** version removes the distribute list. An IP access list acts as a filter; refer to the **access-list** command for details.

Syntax In Router Configuration mode:

[no] distribute-list *accessListName* { in | out } [*interfaceType interfaceSpecifier*]

In Remote Neighbor Configuration mode:

[no] distribute-list *accessListName* { in | out }

- *accessListName*—Name of the access list; string of up to 32 alphanumeric characters
- in—Applies the access list to incoming route updates
- out—Applies the access list to outgoing route updates
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Address Family Configuration, Remote Neighbor Configuration, Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

dns-server

Description Assigns a DNS server to an address pool. The **no** version removes the association between the address pool and the DNS server.

Syntax dns-server *ipAddressPrimary* [*ipAddressSecondary*]

no dns-server

- *ipAddressPrimary*—IP address of preferred DNS server
- *ipAddressSecondary*—IP address of secondary DNS server

Mode DHCP Local Pool Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

do

Description Allows you to issue an Exec mode command from any configuration command mode. This command functions the same as the **run** command. There is no **no** version.

Syntax do *execCommand*

- *execCommand*—CLI command that you can issue from User Exec or Privileged Exec mode

Mode All configuration command modes

Release Information Command introduced before JUNOSe Release 7.1.0.

domain

Description Specifies the domain to an automatically generated username in an IP service profile. The **no** version removes the domain.

Syntax domain *domainName*

no domain

- *domainName* —Name of the domain; maximum of 32 characters

Mode IP Service Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

domain-authentication

Description Enables or disables simple text authentication or HMAC MD5 authentication of IS-IS level 2 CSNP packets or PSNP packets. The **no** version restores the default behavior, in which authentication of IS-IS level 2 CSNPs and PSNPs is disabled.

Syntax [no] domain-authentication { csnp | psnp }

- csnp—Enables authentication of IS-IS level 2 complete sequence number PDUs (CSNPs)
- psnp—Enables authentication of IS-IS level 2 partial sequence number PDUs (PSNPs)

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

domain-authentication-key

Description Assigns a password for authentication of IS-IS level 2 LSPs, CSNPs, and PSNPs. The **no** version deletes the password.

NOTE: Issuing this command enables simple authentication of level 2 LSPs only. To enable authentication of level 2 CSNPs or PSNPs, use the **domain-authentication** command.

Syntax domain-authentication-key [0 | 8] *authKey*

no domain-authentication-key

- 0—indicates the *authKey* is entered in unencrypted form (plaintext); this is the default option
- 8—indicates the *authKey* is entered in encrypted form (ciphertext)
- *authKey*—password; string of up to 8 characters

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

domain-id

Description Sets the OSPF domain ID for an OSPF VRF on a PE. The **no** version restores the default value.

Syntax domain-id *domainIdAddress* | *domainId*

no domain-id

- *domainIdAddress*—OSPF domain ID in IP address format; default value is the IP address of the OSPF router configured in the VRF
- *domainId*—OSPF domain ID as an integer value in the range 0–4294967295; default value is 0

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

domain-message-digest-key

Description Specifies an HMAC MD5 key that the router uses to create a secure, encrypted message digest of each IS-IS level 2 packet (LSPs, CSNPs, and PSNPs). The digest is inserted into the packet from which it is created. Using this algorithm for domain routers protects against unauthorized routers injecting false routing information into your network. You can specify when the router will start (default is the current time) and stop (default is never) accepting packets that include a digest made with this key. You can specify when the router will start (default is the current time plus 2 minutes) and stop (default is never) generating packets that include a digest made with this key. The **no** version deletes the key specified by the *keyId*.

NOTE: Issuing this command enables MD5 authentication of level 2 LSPs only. To enable authentication of level 2 CSNPs or PSNPs, use the **domain-authentication** command.

Syntax domain-message-digest-key *keyId* hmac-md5 [0 | 8] *key*
[start-accept *startAcceptTime* [{ *startAcceptMonth startAcceptDay* | *startAcceptDay startAcceptMonth* } *startAcceptYear*]]
[start-generate *startGenTime* [{ *startGenMonth startGenDay* | *startGenDay startGenMonth* } *startGenYear*]]
[stop-accept { never | *stopAcceptTime* [{ *stopAcceptMonth stopAcceptDay* | *stopAcceptDay stopAcceptMonth* } *stopAcceptYear*] }]
[stop-generate { never | *stopGenTime* [{ *stopGenMonth stopGenDay* | *stopGenDay stopGenMonth* } *stopGenYear*] }]

no domain-message-digest-key *keyId*

- *keyId*—Integer from 1 to 255 that is a unique identifier for the secret key, sent with the message digest in the packet.
- 0—Indicates the *key* is entered in unencrypted form (plaintext); this is the default option
- 8—Indicates the *key* is entered in encrypted form (ciphertext)
- *key*—String of up to 20 alphanumeric characters; secret key used by the HMAC MD5 algorithm to generate the message digest.
- *startAcceptTime, startAcceptMonth, startAcceptDay, startAcceptYear* – time, month, day, year that the router will start accepting packets created with this password. Use military time format *HH*:*MM*[:*SS*].
- *startGenTime, startGenMonth, startGenDay, startGenYear*—Time, month, day, year that the router will start inserting this password into packets. Use military time format *HH*:*MM*[:*SS*].
- never—Specifies that the router never stops accepting or generating packets; overrides previously specified stop times.

- *stopAcceptTime, stopAcceptMonth, stopAcceptDay, stopAcceptYear*—Time, month, day, year that the router will stop accepting packets created with this password. Use military time format *HH*:*MM*[:*SS*].
- *stopGenTime, stopGenMonth, stopGenDay, stopGenYear*—Time, month, day, year that the router will stop inserting this password into packets. Use military time format *HH*:*MM*[:*SS*].

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

domain-name

Description From DHCP Local Pool Configuration mode, specifies a domain name that can be returned to the subscriber of an address pool if requested. The **no** version removes the association between the address pool and the domain name.

From IPSec Identity mode, specifies the domain name that the router uses in IKE authentication messages and to generate certificate requests. The **no** version removes the domain name.

Syntax From DHCP Local Pool Configuration mode:
domain-name *domainName*

no domain-name

- *domainName*—Name of the domain

From IPSec Identity Configuration mode:
[no] domain-name *domainName*

- *domainName*—Name used in certificate requests and in IKE authentication messages; up to 60 characters

Mode DHCP Local Pool Configuration, IPSec Identity Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

domain-suffix

Description Appends a domain suffix to user-provided usernames on this profile. The **no** version restores the default value, no domain suffix, and usernames are passed transparently to AAA.

Syntax domain-suffix *domainSuffix*

no domain-suffix

- *domainSuffix*—Domain suffix that you want to append to user-provided usernames.

Mode IPSec Tunnel Profile Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

domain-tag

Description Sets the VPN route tag for an OSPF VRF on a PE to prevent routing loops back into the VPN. The **no** version restores the default value.

Syntax domain-tag *routeTag*

no domain-tag

- *routeTag*—Number identifying the VPN route tag in the range 0–4294967295

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

dont-install-routes

Description Prevents OSPF routes that point directly to the OSPF remote neighbor from being installed in the IP routing table of the VR or VRF in which OSPF is running. The **no** version restores the default behavior, which installs the routes in the IP routing table.

Syntax [no] dont-install-routes

Mode Remote Neighbor Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

dos-protection-group

Description Creates a denial of service (DoS) protection group and enters DoS Protection Group Configuration mode. The **no** version removes the DoS protection group.

Syntax [no] dos-protection-group *groupName*

- *groupName*—Name of the DoS protection group; string of up to 31 alphanumeric characters

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

drop-profile

Description Creates a drop profile. The **no** version removes the drop profile.

Syntax [no] drop-profile *dropProfileName*

- *dropProfileName*—Name for the drop profile

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring RED
- Configuring WRED

ds3-scramble

Description Enables scrambling of the ATM cell payload on a T3 interface. DS3 scrambling assists clock recovery on the receiving end of the interface. The **no** version disables cell scrambling.

Syntax [no] ds3-scramble

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

dsr-detect

Description Requires that a DSR signal be detected on the line for a user to log into the console. DSR is carried on pin 6 of the SRP module's RS-232 (DB-9) connector. The DSR input must be connected to the DSR output of a modem or the DTR output of another DTE device, such as a terminal server, that supports this signal. If a session is in progress and the DSR signal is lost, the user is logged out automatically. The **no** version restores the default of no DSR required.

Syntax [no] dsr-detect

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

dsu bandwidth

Description Sets the speed for the fractional T3 lines. The **no** version clears the bandwidth. If you issue this command, be sure to issue the **dsu mode** and **scramble** commands. Similarly, if you issue the **no** version, be sure to issue the **no dsu mode** and **no scramble** commands; otherwise, the interface may drop packets unexpectedly.

Syntax dsu bandwidth *bandwidthValue*

no dsu bandwidth

- *bandwidthValue*—Value of the fractional bandwidth in the range 22–44210 Kbps. The router offers a set of speeds in increments that depend on the DSU mode you specify. The actual speed of the fractional T3 lines will be the value closest to the fractional bandwidth you specify.

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

dsu mode

Description Sets the DSU mode for the lines. The **no** version clears the dsu mode. If you issue this command, be sure to issue the **dsu bandwidth** and **scramble** commands. Similarly, if you issue the **no** version, be sure to issue the **no dsu bandwidth** and **no scramble** commands; otherwise, the interface may drop packets unexpectedly.

Syntax dsu mode { 0 | 2 }

no dsu mode

- 0—Sets digital Link mode
- 2—Sets Larscom mode

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

duplex

Description Specifies the duplex mode for an Ethernet interface. This command works with the **speed** command; if you set or accept the automatically negotiate setting for either duplex mode or speed, the router negotiates both parameters with the remote device. The **no** version specifies the default value, automatically negotiate or full duplex (FE-8 SFP I/O module only). This command is not available for the Ethernet interface on the SRP module.

Syntax duplex *duplexMode*

no duplex

- *duplexMode*—One of the following duplex options
  - automatically negotiate—Specifies that the router negotiates duplex mode with the remote device; not valid for the FE-8 SFP I/O module
  - full—Specifies that the router uses full duplex on a Fast Ethernet or Gigabit Ethernet interface
  - half—Specifies that the router uses half duplex on a Fast Ethernet interface; this value is not valid for Gigabit Ethernet interfaces

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

dvmrp destination profile

Description Configures a destination profile for dynamic DVMRP tunnels and enters IP Tunnel Destination Profile Configuration mode. There is no **no** version.

Syntax dvmrp destination profile *profileName* { [any-virtual-router] | [virtual-router *virtualRouterName*] }

no dvmrp destination profile *profileName*

- *profileName*—Name of the destination profile
- any-virtual-router—Specifies a default destination profile for all virtual routers; only one default destination profile can be defined in the system
- *virtualRouterName*—Name of the transport virtual router

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.2.0.

e3-scramble

Description Enables scrambling of the ATM cell payload on an E3 interface. E3 scrambling assists clock recovery on the receiving end of the interface. The **no** version disables scrambling.

Syntax [no] e3-scramble

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

enable

Description From User Exec mode, enters Privileged Exec mode at the specified privilege level. There is no **no** version for this use.

From SNMP Event Configuration or SNMP Trigger Configuration modes, enables the configuration for the event or trigger, respectively. The **no** version disables the event or trigger.

Syntax To access Privileged Exec mode:
enable [*level*]

To enable event or trigger configuration:
[no] enable

- *level*—level at which you want to access the Privilege Exec mode; default value is 10; commands generally fall into one of the following security/privilege levels:
  - 0—allows the user to execute the **help**, **enable**, **disable**, and **exit** commands
  - 1—Allows the user to execute commands in User Exec mode plus commands at level 0
  - 5—Allows the user to execute Privileged Exec **show** commands plus the commands at levels 1 and 0
  - 10—Allows the user to execute all commands except support commands, which may be provided by Juniper Networks Customer Service, or the ability to assign privileges to commands
  - 15—Allows the user to execute support commands and assign privileges to commands

Mode SNMP Event Configuration, SNMP Trigger Configuration, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

enabled

Description Enables the aggregation cache to start accumulating information from the flow cache. The **no** version stops the information flow from the flow cache.

Syntax [no] enabled

Mode Flow Cache Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

enable ipsec-transport

Description In IP Tunnel Destination Profile Configuration mode, specifies that the router accepts only dynamic IP tunnels protected by an IPSec transport connection. The **no** version disables IPSec transport mode.

In L2TP Destination Profile Host Configuration mode, specifies that the router accepts only L2TP tunnels protected by an IPSec transport connection. The **no** version disables IPSec transport mode.

Syntax [no] enable ipsec-transport

Mode IP Tunnel Destination Profile Configuration, L2TP Destination Profile Host Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
IP Tunnel Destination Profile Configuration mode added in JUNOSe Release 8.2.0.

enable password

Description Sets a password to control access to certain types of commands. The **no** version removes the password requirement.

NOTE: On the E-series router, all passwords are stored as encrypted passwords.

Syntax enable password [level *securityLevel*] [*passwordType*] *passwordText*

no enable password [level *securityLevel*]

- *securityLevel*—Security level for which you want to set the password; default value is 5; commands generally fall into one of the following security/privilege levels:
  - 0—Allows the user to execute the **help**, **enable**, **disable**, and **exit** commands
  - 1—Allows the user to execute commands in User Exec mode plus commands at level 0
  - 5—Allows the user to execute Privileged Exec **show** commands plus the commands at levels 1 and 0; this is the default level
  - 10—Allows the user to execute all commands except support commands, which may be provided by Juniper Networks Customer Service
  - 15—Allows the user to execute privilege setting and support commands
- *passwordType*:
  - 0—Specifies that an unencrypted password follows; this is the default
  - 7—Specifies that an encrypted password follows
- *passwordText*—Password, either encrypted or unencrypted, depending on the password type

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

enable proxy authenticate

Description Configures proxy authenticate for a remote host. The **no** version removes proxy authenticate configuration from the remote host.

Syntax [no] enable proxy authenticate

Mode L2TP Destination Profile Host Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

enable secret

Description Sets a secret to control access to certain types of commands. The **no** version removes the secret requirement.

NOTE: On the E-series router, all secrets are stored as encrypted secrets.

Syntax enable secret [level *securityLevel*] [*secretType*] *secretText*

no enable secret [*securityLevel*]

- *securityLevel*—Security level for which you want to set the secret; default value is 5
  - 0—Allows the user to execute the **help**, **enable**, **disable**, and **exit** commands
  - 1—Allows the user to execute commands in User Exec mode plus commands at level 0
  - 5—Allows the user to execute Privileged Exec **show** commands plus the commands at levels 1 and 0; this is the default level
  - 10—Allows the user to execute all commands except support commands, which may be provided by Juniper Networks Customer Service
  - 15—Allows the user to execute support commands
- *secretType*—One of the following:
  - 0—Indicates that the secret is unencrypted; this is the default
  - 7—Indicates that the secret is encrypted
- *secretText*—Secret, either encrypted or unencrypted, depending on the secret type

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

encapsulation

Description In ATM VC Configuration mode, configures the encapsulation method on an ATM PVC. The encapsulation method represents the format of the data units that traverse the PVC. The **encapsulation** command is valid only for data PVCs; you cannot use this command for control (ILMI or signaling) PVCs. The **no** version restores the default encapsulation method, **aal5snap**.

In ATM VC Class Configuration mode, configures the encapsulation method as part of a VC class definition that you assign to an ATM data PVC. The **no** version restores the default encapsulation method, **aal5snap**, in the VC class.

Syntax encapsulation *encapsulationType*

no encapsulation

- *encapsulationType*—One of the following encapsulation methods for data PVCs:
  - aal0—Causes the router to receive raw ATM cells on this PVC and forward the cells without performing AAL5 packet reassembly
  - aal5all—Configures ATM over MPLS passthrough connections; the router passes through all ATM AAL5 traffic without interpreting it
  - aal5autoconfig—Enables autodetection of the 1483 encapsulation (LLC/SNAP or VC multiplexed)
  - aal5mux ip—Configures a VC-based multiplexed circuit used for IP only
  - aal5snap—Configures an LLC encapsulated circuit; an LLC/SNAP header precedes the protocol datagram

Mode ATM VC Configuration, ATM VC Class Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.
ATM VC Class Configuration mode added in JUNOSe Release 7.3.0.

encapsulation bridge1483

Description Configures bridged Ethernet as the encapsulation method on an interface and optionally assigns a MAC address to the interface. The **no** version removes bridged Ethernet as the encapsulation method on the interface.

Syntax encapsulation bridge1483 [mac-address *macAddress*]

no encapsulation bridge1483

- *macAddress*—User-configured MAC address for the interface. The MAC address format is a dotted triple of four-digit hexadecimal numbers; for example, 0090.1a40.4c7c. Multicast MAC address cannot be configured on bridged Ethernet interfaces.

Mode Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

encapsulation frame-relay ietf

Description Enables Frame Relay encapsulation. The **no** version removes Frame Relay configuration from an interface.

Syntax encapsulation frame-relay ietf

no encapsulation frame-relay

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring Frame Relay Layer 2 Services

encapsulation hdlc

Description Enables Cisco HDLC encapsulation. The **no** version disables Cisco HDLC on an interface.

Syntax [no] encapsulation hdlc

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

encapsulation mlframe-relay ietf

Description Enables Multilink Frame Relay encapsulation. The **no** version removes Multilink Frame Relay configuration from an interface.

Syntax encapsulation mlframe-relay ietf

no encapsulation mlframe-relay

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

encapsulation mlppp

Description Configures MLPPP as the encapsulation method on an individual interface. Creates an MLPPP link interface, which can be configured as a member of an MLPPP bundle. The **no** version disables MLPPP on an interface.

Syntax [no] encapsulation mlppp

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

encapsulation ppp

Description Configures PPP as the encapsulation method for the interface. The **no** version disables PPP on an interface.

Syntax [no] encapsulation ppp

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

encapsulation pppoe

Description Configures PPPoE as the encapsulation method for the interface. The **no** version removes PPPoE encapsulation from the interface.

Syntax [no] encapsulation pppoe

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

encapsulation vlan

Description Configures VLAN as the encapsulation method for the interface. The **no** version removes VLAN encapsulation from the interface.

Syntax [no] encapsulation vlan

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring Ethernet/VLAN Layer 2 Services
- Configuring Local Cross-Connects Between Ethernet/VLAN Interfaces
- Configuring S-VLAN Tunnels for Layer 2 Services

encryption

Description Sets the encryption algorithm to use in the IKE policy. The **no** version restores the default, 3DES.

Syntax encryption { des | 3des }

no encryption

- des—Specifies 56-bit DES-CBC as the encryption algorithm
- 3des—Specifies 168-bit 3DES-CBC as the encryption algorithm

Mode IKE Policy Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

end

Description Exits Global Configuration mode or any of the Configuration submodes and returns to the User Exec mode. There is no **no** version.

Syntax end

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

enrollment retry-limit

Description Specifies the number of minutes during which the router continues to send a certificate request to the CA. The **no** version restores the default.

Syntax enrollment retry-limit *minutes*

no enrollment retry-limit

- *minutes*—Number of minutes, from 0 (infinite time period) to 480; default value is 60

Mode IPSec CA Identity Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

enrollment retry-period

Description Specifies the number of minutes that the router waits after receiving no response before resending a certificate request to the CA. The **no** version restores the default.

Syntax enrollment retry-period *minutes*

no enrollment retry-period

- *minutes*—Number of minutes in the range 0–60 minutes; default value is 1

Mode IPSec CA Identity Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

enrollment url

Description Specifies the URL of the simple certificate enrollment protocol (SCEP) server to which the router sends CA certificate requests (using the **ipsec ca authenticate** command) and public certificate requests (using the **ipsec ca enroll** command). The **no** version deletes the URL specification.

Syntax enrollment url *url*

no enrollment url

- *url*—URL of SCEP server; in the format http://*server_ipaddress*; a maximum of 200 characters

Mode IPSec CA Identity Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

equipment loopback

Description Enables or disables the router's ability to be placed in loopback by a remote device connected on a CT3 or T3 interface. The **no** version disables the router's ability to be placed in loopback by the remote device.

Syntax equipment { customer | network } loopback

no equipment

- customer—Enables the router to enter into loopback when it receives an appropriate signal from the remote interface
- network—Disables the router's ability to enter into loopback when it receives an appropriate signal from the remote interface

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

erase secrets

Description Removes all CLI passwords or secrets. Execute before pressing the NMI button on the SRP module. There is no **no** version.

NOTE: If you enter the **service unattended password-recovery** command, the behavior of the **erase secrets** command changes. The **erase secrets** command will not take any parameters and will not be available through a vty session until you enter **no service unattended password-recovery**.

Syntax erase secrets *seconds*

- *seconds*—Number of seconds in the range 1–60 to allow for the operation

Mode User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

ethernet description

Description Adds a text description to a non-SRP Fast Ethernet or Gigabit Ethernet interface. The **no** version removes the description from the interface.

Syntax ethernet description *name*

no ethernet description

- *name*—String of up to 64 characters

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ethernet dos-protection-group

Description Attaches an Ethernet denial of service (DoS) protection group to an interface. The **no** version removes the attachment of the DoS protection group from the interface.

Syntax ethernet dos-protection-group *groupName*

no ethernet dos-protection-group

- *groupName*—Name of the DoS protection group; string of up to 31 alphanumeric characters

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

event

Description Creates an event and launches the event configuration mode in the SNMP server event manager. The **no** version removes the event.

Syntax [no] event *eventOwner eventName*

- *eventOwner*—Owner associated with this event; string of up to 32 alphanumeric characters
- *eventName*—Name associated with this event; string of up to 32 alphanumeric characters

Mode SNMP Event Manager Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

exceeded-action

Description Sets the action for packets not conforming to the committed rate and committed burst size, and not conforming to the peak rate and peak burst size. The **no** version restores the default, drop.

Syntax For IP and IPv6 rate-limit profiles:
[no] exceeded-action { drop | transmit | mark *markVal* }

For L2TP rate-limit profiles:
[no] exceeded-action { drop | transmit }

For MPLS rate-limit profiles:
[no] exceeded-action { drop | transmit | mark-exp *expValue* }

For hierarchical rate-limit profiles:
[no] exceeded-action { drop | transmit [conditional | final] }

- drop—Drops the packet
- transmit—Transmits the packet; for hierarchical rate limits:
  - conditional—Packets must pass the next rate limit
  - final—Packets exit the hierarchy at rate limit
- *markVal*—Marks value in the range 0–255; mark actions ar not supported on hierarchical rate limits
- *expValue*—EXP bit value in the range 0–7

Mode Rate Limit Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
conditional and **final** keywords added in JUNOSe Release 7.2.0.

Related Topics

- Creating a Two-Rate Rate-Limit Profile

exceeded-drop-threshold

Description Configures the threshold above which exceeded-drop-events are logged. The **no** version removes the threshold.

Syntax exceeded-drop-threshold *exceededDropThreshold*

no exceeded-drop-threshold

- *exceededDropThreshold*—Bits per second in the range 0–1073741824

Mode Statistics Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring Event Statistics

exceeded-fraction

Description Sets the percentage of the total queue length that can be occupied before dropping exceeded packets. The **no** version returns the exceeded fraction to its default setting.

Syntax exceeded-fraction *exceededFraction*

no exceeded-fraction

- *exceededFraction*—Percentage range 0–100; default value is 25

Mode Queue Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring Queue Profiles to Manage Buffers and Thresholds

exceeded-length

Description Sets minimum and maximum constraints for the queue's exceeded lengths. The **no** version removes constraints on the queue's exceeded length.

Syntax exceeded-length *minimumExceededLength* [*maximumExceededLength*]

no exceeded-length

- *minimumExceededLength*—Range 0–1073741824
- *maximumExceededLength*—Range 0–1073741824

Mode Queue Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring Queue Profiles to Manage Buffers and Thresholds

exceeded-threshold

Description Specifies the exceeded queue thresholds and maximum drop probability. The **no** version removes exceeded threshold.

Syntax exceeded-threshold { percent *MinThresholdPercent MaxThresholdPercent* | *MinThresholdBytes MaxThresholdBytes* } *MaxDropProbability*

no exceeded-threshold

- percent—Specifies *exceeded* queue thresholds as percentages
- *MinThresholdPercent*—Minimum queue threshold as a percentage of queue length
- *MaxThresholdPercent*—Maximum queue threshold as a percentage of queue length
- *MinThresholdBytes*—Minimum queue threshold in bytes
- *MaxThresholdBytes*—Maximum queue threshold in bytes
- *MaxDropProbability*—Maximum drop probability

Mode Drop Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring RED
- Configuring WRED

exception dump

Description Specifies the location from and to which the router should transfer a core dump file. Core dumps are enabled and stored in local NVS by default. The **no** version disables the command.

Syntax exception dump { except-srp | srp-only } { local | *ipAddress* [*directoryName*] }

no exception dump

- except-srp—Generates core dump for all non-SRP modules
- srp-only—Generates core dump for only the SRP modules
- local—Nonvolatile storage memory
- *ipAddress*—IP address of the server to which the router will transfer the core dump file
- *directoryName*—Name of the directory on the server to which the router will transfer the core dump file

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

exception gateway

Description Specifies the gateway through which the router sends the core dump file to the remote FTP server. The **no** version returns the value to its default (null).

Syntax exception gateway *ipAddress*

no exception gateway

- *ipAddress*—IP address of the gateway

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

exception http-redirect

Description Creates the exception rule within an IP policy classifier group to allow the application to perform an application-dependent action on the content of the packet. HTTP redirect is the only application that is available as a destination of the **exception** rule. This command is not supported for the ES2 10G LM or the ES2 10G Uplink LM. The **no** version removes the exception rule.

Syntax [no] exception http-redirect

Mode Classifier Group Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

Related Topics

- Assigning Values to the ATM CLP Bit

exception monitor

Description Enables the core dump monitor and specifies the location to which the router transfers core dump files. The **no** version disables the core dump monitor.

Syntax exception monitor *ipAddress* [*directoryName*]

no exception monitor

- *ipAddress*—IP address of the server to which you want the router to transfer core dump files
- *directoryName*—Name of the directory on the server to which you want the router to transfer core dump files

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

exception monitor interval

Description Specifies the interval at which you want the router to check NVS for core dump files. The **no** version disables the core dump monitor.

Syntax exception monitor interval *interval*

no exception monitor interval

- *interval*—Number of minutes between NVS checks; in the range 1–1440

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

exception protocol ftp

Description Specifies the username and password for FTP access to a host where you transferred a core dump file. The **no** version restores the defaults.

Syntax exception protocol ftp [[*algorithmType*] *userName* [[*algorithmType*] *password*]]

no exception protocol

- *algorithmType*—Type of user name or password
  - 0—Indicates the *password* is unencrypted; the default
  - 8—Indicates the *password* is encrypted
- *userName*—Username required to access the FTP server; the default username is anonymous
- *password*—Password required to access the FTP server; default value is no password

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

exception source

Description Specifies the IP address and mask of the router interface over which you want to send the core dump file to the remote FTP server. The **no** version returns the value to its default (null).

Syntax exception source *ipAddress ipAddressMask*

no exception source

- *ipAddress*—IP address of the interface
- *ipAddressMask*—Optionally add the IP address mask of the interface

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

excess-burst

Description Sets amount of bandwidth allocated to accommodate a packet in progress when the rate is in excess of the burst. The **no** version restores the default value, 0.

Syntax excess-burst { *size* | millisecond *milliseconds* }

no excess-burst

- *size*—Amount of bandwidth allocated; in the range 0–4294967295
- *milliseconds*—Milliseconds in the range 1–10000

Mode Rate Limit Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Creating a Two-Rate Rate-Limit Profile

exclude-subsystem

Description Excludes subsystem files from being copied when you copy a software release to the router. The **no** version removes the exclusion for a specified subsystem file or all subsystem files.

Syntax exclude-subsystem *subsystemName*

no exclude-subsystem [*subsystemName*]

- *subsystemName*—Name of the subsystem file to be excluded

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

exec-banner

Description Controls display of an exec banner (configured with the **banner** command) on a particular line after user authentication (if any) and before the first prompt of a CLI session. The **no** version disables the exec banner and the motd banner on the line. The **default** version restores the default setting, in which the banner is enabled on all lines.

Syntax [no | default] exec-banner

Mode Line Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

exec-timeout

Description Sets the time interval that the console or vty line waits for expected user input. The **no** version restores the default value, which is no time limit.

Syntax exec-timeout *minutes* [*seconds*]

no exec-timeout

- *minutes*—Number of minutes for the time limit; in the range from 0 to 35791
- *seconds*—Number of seconds in addition to the minutes for the time limit; in the range from 0 to 2147483

Mode Line Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

existence-test

Description Defines existence test values for the trigger that you are configuring, including binding an event to the existence-test trigger, specifying a startup condition, and defining an existence-test type. The **no** version deletes the existence-test values for this trigger or removes either the startup condition or event binding.

Syntax existence-test { event *eventOwner eventName* |
startup { absent | present } | test-type { absent | changed | present } }

no existence-test [event | startup | test-type]

- *eventOwner*—Name of event owner that partially specifies event to trigger the existence test; string of up to 32 alphanumeric characters
- *eventName*—Name of event that partially specifies event to trigger the existence test; string of up to 32 alphanumeric characters
- startup—Specifies startup existence condition that you predict the sample to follow; absent or present; you can specify both conditions in the same command
- test-type—Specifies type of existence test to perform; absent, changed, or present; you can specify one, two, or all three conditions in the same command

Mode SNMP Trigger Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

exit

Description Exits the current command mode. In User Exec and Privileged Exec modes, logs out of the CLI. There is no **no** version.

Syntax exit

Mode All modes

Release Information Command introduced before JUNOSe Release 7.1.0.

exit-address-family

Description Exits from Address Family Configuration mode and returns to Router Configuration mode. There is no **no** version.

Syntax exit-address-family

Mode Address Family Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring BGP Signaling

exit-remote-neighbor

Description Exits from Remote Neighbor Configuration mode and returns to Router Configuration mode. There is no **no** version.

Syntax exit-remote-neighbor

Mode Remote Neighbor Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

exp-mask

Description Sets the EXP mask to be applied with the mark values. The **no** version restores the default mask of 7.

Syntax [no] exp-mask *maskValue*

- *maskValue*—EXP mask value in the range 0–7

Mode Rate Limit Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Creating a Two-Rate Rate-Limit Profile

export destination

Description Configures an export destination for the aggregation cache. The **no** version removes the destination.

Syntax [no] export destination { *hostName* | *ipAddress* } udp-port

- *hostName*—Name of the destination host
- *ipAddress*—Address of IP interface
- udp-port—Specifies UDP port as the destination

Mode Flow Cache Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

export map

Description Associates a route map with a VRF to modify or filter routes exported by the VRF to the global BGP VPN RIB in the parent VR. Both IPv4 and IPv6 routes are exported unless you issue the appropriate keyword to restrict exportation. The **no** version restores the default behavior, which is to export all routes without applying a route map.

Syntax export map [ipv4 | ipv6] *routeMap* [filter]

no export map [ipv4 | ipv6]

- ipv4—Specifies that only IPv4 routes are exported to the global BGP VPN RIB
- ipv6—Specifies that only IPv6 routes are exported to the global BGP VPN RIB
- *routeMap*—Name of a route map; string of up to 32 alphanumeric characters
- filter—Prevents routes that do not match the route map from being exported; if absent, such routes are exported but their attributes are not modified by the route map

Mode VRF Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

export source

Description Sets the source IP address for datagrams containing information from the cache. The **no** version removes the setting of the IP address.

Syntax [no] export source interface *interface*

- *interface*—Name of the interface

Mode Flow Cache Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

extended-authentication

Description Specifies the extended user authentication protocol for use during the extended user authentication protocol exchange. The **re-authenticate** keyword enables the reauthentication option (a second authentication procedure). The **skip-peer-config** keyword disables the router from configuring peer IP characteristics. The **no** version restores the default protocol, pap.

Syntax extended-authentication { none | pap | chap } [re-authenticate] [skip-peer-config]

no extended-authentication

- none—Specifies that no extended authentication is performed
- pap—Specifies the use of PAP protocol for extended authentication
- chap—Specifies the use of CHAP protocol for extended authentication
- re-authenticate—Enables reauthentication when IKE SA rekeying occurs
- skip-peer-config—Disables configuration of peer IP characteristics

Mode IPSec Tunnel Profile Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

external-paths

Description Configures the maximum number of received external BGP best paths allowed for route-target signaling. The **no** version restores the default value, 1.

Syntax external-paths *limit*

no external-paths

- *limit*—Number of paths, in the range 1–255

Mode Address Family Configuration, Router Configuration

Release Information Command introduced in JUNOSe Release 8.2.0.

fabric-strict-priority

Description Specifies strict priority scheduling for queues in the traffic class in the fabric. The **no** version deletes the strict priority setting.

Syntax [no] fabric-strict-priority

Mode Traffic Class Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

fabric-weight

Description Specifies the relative weight for queues in the traffic class in the fabric. The **no** version sets the fabric weight to the default value.

Syntax fabric-weight *weight*

no fabric-weight

- *weight*—Range 1–63; default value is 8

Mode Traffic Class Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

fabric weights

Description Defines the multicast-to-unicast traffic ratio for the ERX-1440, ERX-310, E120, or E320 router switch fabric. The **no** version returns the switch fabric to its default multicast:unicast ratio (15:2).

Syntax fabric weights multicast *multicastValue* unicast *unicastValue*

no fabric weights

- *multicastValue*—Ratio value of multicast bandwidth in the range 1–15
- *unicastValue*—Ratio value of unicast bandwidth in the range 1–15

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

failover-resync

Description Configures the L2TP peer resynchronization method that an L2TP failed endpoint uses to resynchronize with its peer non-failed endpoint. This command configures peer resynchronization for a host profile or a domain map tunnel, and overrides a global peer resynchronization method that is specified in Global Configuration mode. The **no** version restores the default setting, not-configured.

Syntax failover-resync { failover-protocol | failover-protocol-fallback-to-silent-failover | silent-failover | disable | not-configured }

no failover-resync

- failover-protocol—Specifies the L2TP failover protocol method
- failover-protocol-fallback-to-silent-failover—Specifies the L2TP failover protocol method; however, if the peer does not support this method, the silent failover method is used
- silent-failover—Specifies the silent failover method
- disable—Disables peer resynchronization
- not-configured—Specifies that peer resynchronization is not configured for L2TP host profiles and AAA domain map tunnels. L2TP uses the global failover method; the default setting

Mode Domain Map Tunnel Configuration, L2TP Destination Profile Host Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

filter

Description Defines a policy rule that drops all packets conforming to the current classifier control list and can be used while the policy list is referenced by interfaces. The **no** version removes the filter rule from the policy list; the **suspend** version temporarily suspends the policy rule; the **no suspend** version resumes application of a suspended rule.

NOTE: This command replaces the Policy List Configuration version of the **filter** command, which may be removed completely in a future release.

Syntax [no] [suspend] filter

Mode Classifier Group Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Policy Rule Precedence

flash-disk compare

Description Performs a checksum validation that compares the contents of the NVS file system on the primary SRP module with the contents of the NVS file system on the redundant SRP module, and detects any differences. The command validates only those files that are synchronized between the primary and redundant SRP modules; it does not validate log files, core dump files, and other files that are excluded from the system synchronization process. There is no **no** version.

Syntax flash-disk compare { all | configuration }

- all—Compares all files in NVS; this option can take several minutes to complete
- configuration—Compares only configuration files; this option takes less time to complete because it compares only a subset of the files in the NVS file system

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

flash-disk duplicate

Description Copies the contents of NVS on the primary SRP module to another NVS card. There is no **no** version.

Syntax flash-disk duplicate

Mode Boot

Release Information Command introduced before JUNOSe Release 7.1.0.

flash-disk initialize

Description Performs a low-level format of unmounted flash cards. There is no **no** version.

Syntax flash-disk initialize [no-format] [disk0 | disk1]

- no-format—Erases all files but does not format the flash card
- disk0—Specifies flash card in slot 0 of the SRP module; default value is disk0; available only in Boot mode, because disk0 cannot be in an unmounted state in a router outside of Boot mode
- disk1—Specifies flash card in slot 1 of the SRP module; supported only on the E120 router and the E320 router

Mode Boot, Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.
disk0 and **disk1** keywords added in JUNOSe Release 7.2.0.
Privileged Exec mode added in JUNOSe Release 8.0.0.

flash-disk scan

Description Scans the flash card on the primary SRP module to detect corrupt sectors, deletes files and directories that contain corrupt sectors, and fixes nonfatal errors. There is no **no** version.

Syntax flash-disk scan [repair] [disk0 | disk1]

- repair—Repairs nonfatal errors detected on flash disk
- disk0—Specifies flash card in slot 0 of the SRP module; default value is disk0; available only in Boot mode, because disk0 cannot be in an unmounted state in a router outside of Boot mode
- disk1—Specifies flash card in slot 1 of the SRP module; supported only on the E120 router and the E320 router

Mode Boot, Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.
disk0 and **disk1** keywords added in JUNOSe Release 7.2.0.
Privileged Exec mode added in JUNOSe Release 8.0.0.

forward

Description Defines a rule to forward all packets that match the specified classifier control list. If you do not specify a classifier control list using the **classifier-group** keyword, the router will select all packets from the interface in the direction of the attached policy list. The **no** version removes the rule from the policy list; the **suspend** version temporarily suspends the forward rule; the **no suspend** version resumes application of a suspended rule.

See the **forward interface** and **forward next-hop** commands for descriptions of the Classifier Group Configuration mode versions of this command.

Syntax

[no] [suspend] forward
[interface *interfaceType interfaceSpecifier* [next-hop *nextHop* [ignore-default-route]]
[order *orderValue*]] | [next-hop *nextHop* [virtual-router *vrName*]
[ignore-default-route] [order *orderValue*]] |
[order *orderValue*] | classifier-group *claclName*] [precedence *precValue*]

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide* (IP policy lists only)
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide* (IP policy lists only)
- *nextHop*—Next-hop IP address (IP policy lists only)
- ignore-default-route—Ignores the default route as a consideration for the next hop (IP policy lists only)
- *vrName*—Name of the virtual router (IP policy lists only)
- *orderValue*—Order of this forward rule within the single classifier; in the range 1–32767; default value is 100 (IP policy lists only)
- *claclName*—Classifier control list used to classify packets for this policy
- *precValue*—Precedence of this rule in relation to other rules within this set: in the range 0–32768; default value is 100

Mode Policy List Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Assigning Values to the ATM CLP Bit

forward interface

Description Defines a rule to forward all packets that match the current classifier control list. The **no** version removes the rule from the policy list; the **suspend** version temporarily suspends the forward rule; the **no suspend** version resumes application of a suspended rule.

NOTE: The **forward interface** command replaces the **next-interface** command, which may be removed completely in a future release.

Syntax [no] [suspend] forward [interface *interfaceType interfaceSpecifier* [next-hop *nextHop* [ignore-default-route]] [order *orderValue*]]

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *nextHop*—Next-hop IP address
- ignore-default-route—Ignores the default route as a consideration for the next hop
- *orderValue*—Order of this forward rule within the single classifier; in the range 1–32767; default value is 100

Mode Classifier Group Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Assigning Values to the ATM CLP Bit

forward next-hop

Description Defines a rule to forward all packets that match the current classifier control list. The **no** version removes the rule from the policy list; the **suspend** version temporarily suspends the forward rule; the **no suspend** version resumes application of a suspended rule.

NOTE: The **forward next-hop** command replaces the **next-hop** command, which may be removed completely in a future release.

Syntax [no] [suspend] forward next-hop *nextHop* [virtual-router *vrName*] [ignore-default-route] [order *orderValue*]

- *nextHop*—Next-hop IP address
- *vrName*—Name of the virtual router
- ignore-default-route—Ignores the default route as a consideration for the next hop
- *orderValue*—Order of this forward rule within the single classifier; in the range 1–32767; default value is 100

Mode Classifier Group Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Assigning Values to the ATM CLP Bit

forwarding-rate-threshold

Description Configures the threshold above which forwarded-rate-exceeded events are logged. The **no** version removes the threshold.

Syntax forwarding-rate-threshold *forwardingRateThreshold*

no forwarding-rate-threshold

- *forwardingRateThreshold*—Bits per second in the range 0–1073741824

Mode Statistics Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring Event Statistics

forwarding-table route-holddown

Description Sets the number of seconds allowed after a routing table change for the accumulation of additional updates and subsequent distribution of the set of routing table changes to the line modules. The **no** version sets the hold-down time to the default value (3 seconds).

Syntax forwarding-table route-holddown *timerValue*

no forwarding-table route-holddown

- *timerValue*—Number of seconds allowed for the accumulation and subsequent distribution of routing table updates to the line modules; a range of 0-30 seconds, where 0 specifies an update following each routing table change

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

frame-relay class

Description Associates a map class with a subinterface. The **no** version removes the association between the map class and the subinterface.

Syntax [no] frame-relay class *mapName*

- *mapName*—Name of the map class; use up to 64 characters

Mode Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

frame-relay classifier-list

Description Creates or modifies a Frame Relay classifier control list. The **no** version removes the classifier control list.

Syntax frame-relay classifier-list *classifierName* [traffic-class *trafficClassName*] [color { green | yellow | red }] [user-packet-class *userPacketClassValue*] [de-bit *deValue*]

no frame-relay classifier-list *classifierName* [*classifierNumber*]

- *classifierName*—Name of the classifier control list entry
- *trafficClassName*—Name of the traffic class to match
- green—Matches packet color to green, indicating a low drop preference
- yellow—Matches packet color to yellow, indicating a medium drop preference
- red—Matches packet color to red, indicating a high drop preference
- *userPacketClassValue*—User packet value to match in the range 0–15
- *deValue*—Value of the DE bit to match; 0 or 1

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Creating or Modifying Classifier Control Lists for Frame-Relay Policy Lists

frame-relay description

Description Assigns a text description or an alias to a Frame Relay interface or subinterface. Use the **show frame-relay interface** or **show frame-relay subinterface** command to display the text description. The **no** version removes the description or alias.

Syntax frame-relay description *name*

no frame-relay description

- *name*—Text string or alias of up to 80 characters for the Frame Relay interface or subinterface

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

frame-relay dos-protection-group

Description Attaches a Frame Relay denial of service (DoS) protection group to an interface. The **no** version removes the attachment of the DoS protection group from the interface.

Syntax frame-relay dos-protection-group *groupName*

no frame-relay dos-protection-group

- *groupName*—Name of the DoS protection group; string of up to 31 alphanumeric characters

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

frame-relay fragment

Description Configures fragmentation and reassembly for the map class created with the **map-class frame-relay** command. The **no** version stops fragmentation and/or reassembly on the subinterface.

Syntax frame-relay fragment [[*fragmentSize*] [fragmentation-only] | reassembly-only]

no frame-relay fragment

- *fragmentSize*—Maximum payload size of a fragment in bytes; a number in the range 16–8188; default value is 52
- fragmentation-only—Specifies fragmentation only
- reassembly-only—Specifies reassembly only

Mode Map Class Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

frame-relay interface-dlci ietf

Description Assigns a data-link connection identifier to a specified Frame Relay subinterface on the router or access server. The DLCI number identifies a virtual circuit. The **no** version removes this assignment.

Syntax frame-relay interface-dlci *dlci* ietf

no frame-relay interface-dlci *dlci*

- *dlci*—DLCI number to be used on the specified subinterface to identify a virtual circuit in the range 16–1007

Mode Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

Configuring Frame Relay Layer 2 Services

frame-relay intf-type

Description Configures a Frame Relay interface type. The **no** version restores the default value, DTE.

Syntax frame-relay intf-type *type*

no frame-relay intf-type

- *type*—One of the following interface types:
  - dce—Router is connected to user DTE equipment
  - dte—Router is connected to a Frame Relay network; the default
  - nni—Router connects two Frame Relay networks

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

Configuring Frame Relay Layer 2 Services

frame-relay keepalive

Description Enables the LMI mechanism for serial lines using Frame Relay encapsulation. The **no** version disables this capability. The keepalive command is similar to the **frame-relay lmi-t391dte** command.

Syntax frame-relay keepalive [*seconds*]

no frame-relay keepalive

- *seconds*—Number in the range 5–30; default value is 10 seconds; defines the keepalive interval; the interval must be set, and the value on the DTE should be less than the value set on the DCE

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

frame-relay lmi-n391dte

Description Sets the full-status polling counter (N391) on a DTE interface. The **no** version restores the default value, assuming an LMI has been configured.

Syntax frame-relay lmi-n391dte *keepExchanges*

no frame-relay lmi-n391dte

- *keepExchanges*—Number in the range 1– 255; default value is 6; number of keep exchanges to be done before requesting a full-status message. If you specify a value of 1, you receive full-status messages only.

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

frame-relay lmi-n392dce

Description Sets the error threshold counter (N392) on a DCE interface. The **no** version removes current setting and sets the default.

Syntax frame-relay lmi-n392dce *threshold*

no frame-relay lmi-n392dce

- *threshold*—Positive number in the range 1– 10; number of errors that will place the interface in an operationally down state; default value is 2 errors

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

frame-relay lmi-n392dte

Description Sets the error threshold counter (N392) on a DTE interface. The **no** version removes current setting and sets the default.

Syntax frame-relay lmi-n392dte *threshold*

no frame-relay lmi-n392dte

- *threshold*—Positive number in the range 1–10; number of errors that will place the interface in an operationally down state; default value is 3 errors

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

frame-relay lmi-n393dce

Description Sets the monitored events count (N393) on a DCE interface. The **no** version removes current setting and sets the default.

Syntax frame-relay lmi-n393dce *events*

no frame-relay lmi-n393dce

- *events*—Number in the range 1–10 events; specifies the diagnostic window used to verify link integrity; default value is 2 events (The detection of N392 errors within the window of N393 samples places the interface in an operationally down state.)

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

frame-relay lmi-n393dte

Description Sets the monitored event count (N393) on a DTE interface. The **no** version removes current setting and sets the default.

Syntax frame-relay lmi-n393dte *events*

no frame-relay lmi-n393dte

- *events*—Number in the range 1–10 events; default value is 4 events; specifies the diagnostic window used to verify link integrity (the detection of N392 errors within the window of N393 samples places the interface in an operationally down state)

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

frame-relay lmi-t391dte

Description Sets the link integrity verification polling timer (T391) on a DTE interface. The **no** version removes the current setting and sets the default.

Syntax frame-relay lmi-t391dte *seconds*

no frame-relay lmi-t391dte

- *seconds*—Number in the range 5–30 seconds; specifies the interval in seconds between status inquiries issued by the DTE; default value is 10 seconds

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

frame-relay lmi-t392dce

Description Sets the polling verification timer (T392) on a DCE interface. The **no** version removes current setting and sets the default.

Syntax frame-relay lmi-t392dce *seconds*

no frame-relay lmi-t392dce

- *seconds*—Number in the range 5–30 seconds; specifies the expected interval in seconds between status inquiries issued by the DTE equipment; default value is 15 seconds

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

frame-relay lmi-type

Description Selects the LMI type. The **no** version restores the default value.

Syntax frame-relay lmi-type *type*

no frame-relay lmi-type

- *type*—One of the following types:
  - ansi—ANSI T1.617 Annex D
  - cisco—Original Group of Four specification developed by DEC, Northern Telecom, Stratacom, and Cisco
  - q933a—ITU-T Q.933 Annex A
  - none—No management interface is used

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

Configuring Frame Relay Layer 2 Services

frame-relay policy

Description Assigns a policy list to the ingress or egress of a Frame Relay interface. If you enter this command when the policy list does not exist, the router will create a policy list with a filter rule as the default. You must specify the **input** or **output** keyword to assign the policy list to the ingress or egress of the interface. The **no** version removes the association between a policy list and an interface.

Syntax frame-relay policy { input | output } *policyName*
[statistics { enabled [baseline { enabled | disabled }] [preserve | merge] | disabled [merge] } | merge]

no frame-relay policy { input | output } [*policyName*]

- input—Applies policy to data arriving at this interface
- output—Applies policy to data leaving this interface
- *policyName*—Name of the policy; a maximum of 40 characters
- statistics—Enables or disable collection of policy routing statistics
  - enabled—Enables collection of policy routing statistics
  - baseline enabled—Enables baselining of policy routing statistics
  - baseline disabled—Disables baselining of policy routing statistics
  - preserve—Preserves existing statistics for any classifier-list that is the same for both the new and old policy attachments when you attach a new policy to an interface

- disabled—Disables collection of policy routing statistics
- merge—Enables merging of multiple policies to form a single policy

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
merge keyword added in JUNOSe Release 7.2.0.

Related Topics

- Setting a Statistics Baseline

frame-relay policy-list

Description Creates or modifies a Frame Relay policy list and accesses Policy List Configuration mode. If you execute a **frame-relay policy-list** command and type **exit**, the router creates a policy list with a filter rule as the default. Attaching this policy list to an interface filters all packets on that interface. The **no** version removes a policy list.

Syntax [no] frame-relay policy-list *policyName*

- *policyName*—Name of the policy list

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Creating Policy Lists for Frame Relay

framing

Description Specifies the framing mode used by E3 or T3 interfaces. Available modes vary by the type of interface. The **no** version restores the default for that interface.

Syntax framing *framingType*

no framing

- *framingType*—One of the following framing types:

  E3 Frame

  - g751—Default; G.751 compliant frame
  - g832—G.832 compliant frame

  T3

  - c-bit—Default; specifies c-bit parity framing
  - m23—Specifies M23 multiplexer framing

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

frequency

Description In RTR Configuration mode, sets the time interval between RTR operations. In SNMP Event Manager Configuration mode, sets the frequency (in seconds) at which you want MIB sampling to occur. The **no** version restores the default value.

Syntax frequency *frequencyValue*

no frequency

- *frequencyValue*—Number of seconds between RTR operations or MIB sampling operations, depending on the configuration mode; with RTR operations, for both types (echo and pathEcho), the default value is 60 seconds; with MIB sampling, the default value is 600 seconds.

Mode RTR Configuration, SNMP Event Manager Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ftp-server enable

Description Enables the FTP server and monitors the FTP port for attempts to connect to the FTP server. The **no** version terminates the current FTP sessions and disables the FTP server.

Syntax [no] ftp-server enable

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

full-spf-always

Description Enables full SPF calculations for ISIS network changes. The **no** version restores partial route calculation (PRC) mode for SPF calculations.

Syntax [no] full-spf-always

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

global export map

Description Associates a route map with a VRF to modify and filter routes exported by the VRF to the global BGP non-VPN RIB in the parent VR. Both IPv4 and IPv6 routes are exported unless you issue the appropriate keyword to restrict exportation. The **no** version disables the exporting of routes to the global BGP non-VPN RIB.

Syntax global export map [ipv4 | ipv6] *routeMap*

no global export map [ipv4 | ipv6]

- ipv4—Specifies that only IPv4 routes are exported to the global BGP non-VPN RIB
- ipv6—Specifies that only IPv6 routes are exported to the global BGP non-VPN RIB
- *routeMap*—Name of a route map; string of up to 32 alphanumeric characters

Mode VRF Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

global import map

Description Associates a route map with a VRF to modify and filter routes imported by the VRF from the global BGP non-VPN RIB in the parent VR. Both IPv4 and IPv6 routes are imported unless you issue the appropriate keyword to restrict importation. The **no** version disables the importing of routes from the global BGP non-VPN RIB to the VRF RIB.

Syntax global import map [ipv4 | ipv6] *routeMap* max-routes *maxNumber*

no global import map [ipv4 | ipv6]

- ipv4—Specifies that only IPv4 routes are imported from the global BGP non-VPN RIB
- ipv6—Specifies that only IPv6 routes are imported from the global BGP non-VPN RIB
- *routeMap*—Name of a route map; string of up to 32 alphanumeric characters
- *maxNumber*—Maximum number of routes that can be imported; integer in the range 1–4294967295

Mode VRF Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

graceful-restart

Description Configures hitless restart capability for OSPFv2. If high availability is active, the OSPF instance can perform a hitless restart when switching or failing over to the secondary SRP module. The **no** version disables OSPF graceful restart capability on the router.

Syntax [no] graceful-restart

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

graceful-restart helper

Description Configures the router to function as an OSPFv2 or OSPFv3 graceful restart helper router. The **no** version disables OSPF graceful restart helper mode capability on the router.

Syntax [no] graceful-restart helper

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

graceful-restart helper-abort-topology-change

Description Configures the OSPFv2 or OSPFv3 helper router to cease help to a restarting router under the specified conditions. However, the router continues to act as helper for subsequent graceful restart requests. The **no** version turns off the graceful restart helper capability.

Syntax graceful-restart helper-abort-topology-change { any | non-externals }

no graceful-restart helper-abort-topology-change

- any—Abandons the helper role when any LSA changes during the restart
- non-externals—Abandons the helper role only when any nonexternal LSA changes during the restart

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

graceful-restart notify-time

Description Specifies the estimated time for the OSPFv2 router to send purged grace LSAs over all interfaces. The **no** version returns the notify duration timer to its default value, 15 seconds.

Syntax [no] graceful-restart notify-time *notifyTime*

- *notifyTime*—Number of seconds during which the router can send purged grace LSAs over all interfaces; in the range 1–1800

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

graceful-restart restart-time

Description Specifies the estimated time for the restarting OSPFv2 router to reacquire OSPF neighbors that were fully functional prior to the restart. When this timer expires, the restarting router exits the restart procedure, originates any LSAs that were suppressed during the restart, removes any self-originated LSAs that it received from helping neighbors, runs SPF, and updates any routes in the routing table. The **no** version returns the restart duration timer to its default value, 180 seconds.

Syntax [no] graceful-restart restart-time *restartTime*

- *restartTime*—Number of seconds during which the restarting router can reacquire OSPF neighbors that were fully functional prior to the restart; in the range 1–1800

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

grace-period

Description Configures the grace period for address leases allocated from the current DHCP local address pool. When the address lease expires, the address enters the grace period, when the address continues to be unavailable to other clients and can only be reassigned to the original client. This command applies only to expired releases—to optionally apply the grace period to addresses that are *explicitly released* by a client, you must enable the **use-release-grace-period** command. The **no** version restores the default, in which no grace period is associated with the local address pool.

Syntax grace-period *days* [*hours* [*minutes* [*seconds*]]]

no grace-period

- *days*—Number of days in the grace period; in the range 0–32767
- *hours*—Number of hours in the grace period; in the range 0–23
- *minutes*—Number of minutes in the grace period; in the range 0–59
- *seconds*—Number of seconds in the grace period; in the range 0–59

Mode DHCP Local Pool Configuration

Release Information Command introduced in JUNOSe Release 8.0.0.

gre destination profile

Description Configures a destination profile for dynamic GRE tunnels and enters IP Tunnel Destination Profile Configuration mode. The **no** version deletes the destination profile.

Syntax gre destination profile *profileName* { [any-virtual-router] |
[virtual-router *virtualRouterName*] }

no gre destination profile *profileName*

- *profileName*—Name of the destination profile
- any-virtual-router—Specifies a default destination profile for all virtual routers; only one default destination profile can be defined in the system
- *virtualRouterName*—Name of the transport virtual router

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.2.0.

green-mark

Description Applies ToS mark value to green packets, which can be from policy actions, earlier policies, or rate-limit hierarchies. The **no** version deletes the ToS mark value.

Syntax [no] green-mark *colorMarkValue*

- *colorMarkValue*—Value of the ToS mark to be applied: in the range 0–255

Mode Color Mark Profile Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

Related Topics

- Hierarchical Rate Limits Overview
- Policy Rule Precedence

gre-tunnel classifier-list

Description Creates or modifies a GRE tunnel classifier control list. The **no** version deletes the classifier control list.

Syntax gre-tunnel classifier-list *classifierName*
[traffic-class *className*] [color { green | yellow | red }]
[user-packet-class *userPacketClassValue*]
[precedence *precNum* | dsfield *dsfieldNum* | tos *tosNum*]

no gre-tunnel classifier-list *classifierName* [*classifierNumber*]

- *classifierName*—Name of a classifier list entry
- *className*—Name of a traffic class; the router supports up to eight traffic classes
- green—Matches packet color to green, indicating a low drop preference
- yellow—Matches packet color to yellow, indicating a medium drop preference
- red—Matches packet color to red, indicating a high drop preference
- *userPacketClassValue*—Value of the user packet class in the range 0–15
- *precNum*—Upper three bits of the ToS byte; in the range 0–7
- *dsfieldNum*—Upper six bits of the ToS byte; in the range 0–63
- *tosNum*—Whole eight bits of the ToS byte; in the range 0–255
- *classifierNumber*—Index of the classifier control list entry to be deleted; an integer in the range 1–10000

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Creating or Modifying Classifier Control Lists for GRE Tunnel Policy Lists

gre-tunnel policy

Description Assigns a GRE tunnel policy list to an interface. If you enter the **gre-tunnel policy** command and the policy list does not exist, the router creates a policy list with no rules, the default. Attaching this policy list to an interface filters all packets on that interface. You must specify the **input** or **output** keyword to assign the policy list to the ingress or egress of the interface. The **no** version removes the association between a policy list and an interface.

Syntax gre-tunnel policy { input | output } *policyName*
[statistics { enabled | disabled | preserve } | merge]

no gre-tunnel policy { input | output } [*policyName*]

- input—Applies policy to data arriving at this interface
- output—Applies policy to data leaving this interface
- *policyName*—Name of the policy; a maximum of 40 characters
- statistics—Enables or disables collection of policy routing statistics
  - enabled—Enables collection of policy routing statistics
  - disabled—Disables collection of policy routing statistics
  - preserve—Preserves existing statistics for any classifier-list that is the same for both the new and old policy attachments when you attach a new policy to an interface
- merge—Enables merging of multiple policies to form a single policy

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
merge keyword added in JUNOSe Release 7.2.0.

Related Topics

- Setting a Statistics Baseline

gre-tunnel policy-list

Description Creates the specified policy list and accesses Policy List Configuration mode. If you enter the **gre-tunnel policy-list** command and the policy list does not exist, the router creates a policy list with no rules, the default. Attaching this policy list to an interface filters all packets on that interface. The **no** version deletes the policy list.

Syntax [no] gre-tunnel policy-list *policyName*

- *policyName*—Name of a policy list; string of up to 40 alphanumeric characters

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Creating Policy Lists for GRE Tunnels

group

Description

From QoS Profile Configuration mode, specifies that a group scheduler node be configured for each interface of the given interface type. The **no** version removes this rule from the QoS profile.

From IKE Policy Configuration mode, assigns a Diffie-Hellman group to the IKE policy. The **no** version restores the default, 1024-bit Diffie-Hellman group.

Syntax

To specify a group scheduler node for QoS:

[no] *typeOfInterface* group *groupName* scheduler-profile *schedulerProfileName*

- *typeOfInterface*—Interface types for group scheduler nodes to be configured: atm, ethernet, serial, server-port
- *groupName*—Name of the traffic class group
- *schedulerProfileName*—Name of the scheduler profile

To specify a Diffie-Hellman group:

group { 1 | 2 | 5 }

no group

- 1—Specifies the 768-bit group
- 2—Specifies the 1024-bit group
- 5—Specifies the 1536-bit group

Mode

IKE Policy Configuration, QoS Profile Configuration

Release Information

Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring a QoS Profile
- Configuring Shadow Nodes
- Configuring QoS for an L2TP Session
- Configuring QoS for Tunnel-Server Ports for L2TP LNS Sessions

halt

Description Stops operation on both SRP modules or on the specified SRP module. When the high availability state is active or pending, this command ensures that the router configuration, up to when you issued the **halt** command, is mirrored to the standby SRP module. There is no **no** version.

CAUTION: To prevent corruption of NVS, issue this command before you remove or power down an SRP module.

Syntax The syntax of the command depends on whether you enter it from Boot mode or Privileged Exec mode.

From Boot mode:

halt

From Privileged Exec mode:

halt [force | primary-srp [force] | standby-srp [force]]

- force—Prompts the user to confirm that the router should stop operation if the SRP modules are in certain states, such as writing configuration data to NVS, that could lead to loss of configuration data or corruption of NVS.

CAUTION: When the high availability state is active or pending, issuing the **force** keyword does not guarantee that the configuration has been mirrored; recent configuration changes may be lost if you issue the **force** keyword.

- primary-srp—Stops operation on primary SRP module only
- standby-srp—Stops operation on standby SRP module only

Mode Boot, Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

hash

Description Sets the hash algorithm in an IKE policy. The **no** version restores the default, SHA-1.

Syntax hash { sha | md5 }

no hash

- sha—Specifies SHA-1 (HMAC variant) as the hash algorithm
- md5—Specifies MD5 (HMAC variant) as the hash algorithm

Mode IKE Policy Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

hdlc dos-protection-group

Description Attaches an HDLC denial of service (DoS) protection group to an interface. The **no** version removes the attachment of the DoS protection group from the interface.

Syntax hdlc dos-protection-group *groupName*

no hdlc dos-protection-group

- *groupName*—Name of the DoS protection group; string of up to 31 alphanumeric characters

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

hdlc down-when-looped

Description Enables loopback detection on a Cisco HDLC interface. Loopback detection is disabled by default. The **no** version disables loopback detection.

Syntax [no] hdlc down-when-looped

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

hdlc keepalive

Description Specifies a keepalive value. The keepalive mechanism tracks the health of the connection. The **no** version turns off the keepalive feature.

Syntax hdlc keepalive [*seconds*]

no hdlc keepalive

- *seconds*—Keepalive timeout period in the range 0–6553 seconds; default value is 10. A value of zero (0) turns off the keepalive feature.

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

hdlc shutdown

Description Stops or restarts a Cisco HDLC session. The **no** version restarts a Cisco HDLC session.

Syntax [no] hdlc shutdown

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

hello hold-time

Description Configures the MPLS hold time, the period that a sending LSR maintains a record of link hello messages from the receiving LSR without receipt of another link hello from that LSR. The **no** version restores the default value, 15 seconds.

Syntax hello hold-time *seconds*

no hello hold-time

- *seconds*—Number of seconds, in the range 1–65535

Mode LDP Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

hello interval

Description Specifies the interval between link-hello packets sent by LDP. The **no** version restores the default interval, 5 seconds.

Syntax hello interval *seconds*

no hello interval

- *seconds*—Number of seconds, in the range 1–65535

Mode LDP Profile Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

hello-interval

Description Specifies the interval between hello packets that the router sends on the OSPF remote-neighbor interface. The **no** version restores the default value.

Syntax hello-interval *helloInterval*

no hello-interval

- *helloInterval*—Number in the range 1–65535 seconds; default value is 10 seconds

Mode Remote Neighbor Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

help

Description Displays basic information about the Help system. There is no **no** version.

Syntax help

Mode All modes

Release Information Command introduced before JUNOSe Release 7.1.0.

hops-of-statistics-kept

Description Sets the number of hops to keep statistics for an entry. The **no** version restores the default value.

Syntax hops-of-statistics-kept [*hopsKeptValue*]

no hops-of-statistics-kept

- *hopsKeptValue*—Number of hops for which statistics are collected for a particular *pathEcho* type; default value is 16 for a *pathEcho* entry and 1 for an *echo* entry; if you omit this option, all hops found are recorded

NOTE: The E-series router supports only the *pathEcho* and *echo types*.

Mode RTR Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

host

Description Adds or modifies an entry to the host table. The **no** version removes the specified host.

Syntax host *hostname ipAddress* [ftp [[*userAlgorithmType*] *userName* [[*passwordAlgorithmType*] *password*]]] | [tftp]

no host *hostname*

- *hostname*—Hostname to add or modify; up to 20 characters
- *ipAddress*—IPv4 or IPv6 address of the host
- ftp—Specifies that the host is an FTP server; the default protocol if neither ftp nor tftp is specified
- *userAlgorithmType*—Type of username
  - 0—Indicates that the *userName* is unencrypted; the default
  - 8—Indicates that the *userName* is an encrypted password
- *userName*—Username used to access an FTP server (but not an NFS server); defaults to **anonymous**
- *passwordAlgorithmType*—Type of password
  - 0—Indicates that the *password* is unencrypted; the default
  - 8—Indicates that the *password* is an encrypted password
- *password*—Password used to access an FTP server (but not an NFS server); defaults to **null**
- tftp—Specifies that the host is a TFTP server

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

hostname

Description Sets the name for the router; this hostname subsequently appears in the router CLI prompt. The **no** version removes the hostname from the router.

NOTE: In Domain Map Tunnel Configuration mode, this command has been replaced by the **clear suspicious-control-flow-detection** command and may be removed completely from Domain Map Tunnel Configuration mode in a future release.

Syntax hostname *hostname*

no hostname

- *hostname*—String of up to 63 characters (no spaces)

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

hotfix activate

Description Activates the specified hotfix present on the local flash card. The **no** version deactivates the specified hotfix or all currently active hotfixes. Deactivating a hotfix restores the router to the state that existed before the hotfix was activated.

Syntax hotfix activate *hfixFilename*

no hotfix activate { *hfixFilename* | all }

- *hfixFileName*—Name of a hotfix software file (.hfx) on the local file system
- all—Specifies that all currently active hotfixes are deactivated

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 7.2.0.

id

Description Specifies the ANCP neighbor ID in the L2C Neighbor (config-l2c-neighbor) Configuration mode. The **no** version removes the neighbor ID.

Syntax [no] id *neighborId*

- *neighborId*—ANCP neighbor ID (MAC address) in the form XXXX.XXXX.XXXX

Mode L2C Neighbor Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

identification

Description From Domain Map Tunnel Configuration or Tunnel Group Tunnel mode, specifies the assignment ID of an L2TP tunnel. The **no** version removes the assignment ID from the tunnel.

Syntax identification *serverId*

no identification

- *serverId*—L2TP tunnel assignment ID up to 32 characters

Mode Domain Map Tunnel Configuration, Tunnel Group Tunnel

Release Information Command introduced before JUNOSe Release 7.1.0.

idle-character

Description Configures the HDLC idle character that is transmitted between HDLC packets. The **no** version restores the default value.

Syntax idle-character { flags | marks }

no idle-character

- flags—Sets the idle character to 0x7E; the default value
- marks—Sets the idle character to 0xFF

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

igmp disable

Description Disables IGMP on a virtual router. The **no** version reenables IGMP on a virtual router.

Syntax [no] igmp disable

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

igmp promiscuous

Description Allows all IGMP interfaces on the router to accept IGMP reports from hosts on any subnet. The **no** version allows IGMP interfaces on the router to accept IGMP reports only from hosts on their associated subnets.

Syntax [no] igmp promiscuous

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ignore-lsp-errors

Description Allows the router to ignore IS-IS link-state packets that are received with internal checksum errors rather than purging the link-state packets. The **no** version disables this function.

Syntax [no] ignore-lsp-errors

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ike crl

Description Controls how the router handles certificate revocation lists (CRLs) during negotiation of IKE phase 1 signature authentication. The **no** version returns the CRL setting to the default, optional.

NOTE: This command has been replaced by the **ipsec crl** command and may be removed completely in a future release.

Syntax ike crl { ignored | optional | required }

no ike crl

- ignored—Allows negotiations to succeed even if a CRL is invalid or the peer's certificate appears in the CRL; this is the most lenient setting
- optional—If the router finds a valid CRL, it uses it; this is the default
- required—Requires a valid CRL; either the certificates belonging to the E-series router or the peer must not appear in the CRL; this is the strictest setting

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ike local-identity

Description Sets the local IKE identity used for IKE security association (SA) negotiations. The **no** version removes the local IKE identity.

Syntax ike local-identity { ip address *ipAddress* | username *userName* | domain-name *domainName* }

no ike local-identity

- *ipAddress*—IP address in 32-bit dotted decimal format (for example, 192.56.32.2)
- *userName*—Username used as the IKE local identity for IKE SA negotiations
- *domainName*—Domain name used as the IKE local identity for IKE SA negotiations (string of 1–32 characters)

Mode IPSec Tunnel Profile Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

ike peer-identity distinguished-name

Description Enables this profile to accept logins from users that present an ASN.1-encoded distinguished name as an IKE identity type and the user-provided IKE identity matches each distinguished name field in this profile. The **no** version removes the peer IKE identity.

Syntax ike peer-identity distinguished-name *dnString*

no ike peer-identity ip address distinguished-name

- *dnString*—String of 1–32 characters used as the distinguished name

Mode IPSec Tunnel Profile Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

ike peer-identity domain-name

Description Enables this profile to accept logins from users that present a userFQDN or FQDN as an IKE identity type and the domain name portion of the IKE identity matches the domain name setting for this profile. The **no** version removes the peer IKE identity.

Syntax ike peer-identity domain-name *domainName*

no ike peer-identity ip address domain-name

- *domainName*—String of 1–32 characters used as the domain name

Mode IPSec Tunnel Profile Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

ike peer-identity ip address

Description Enables this profile to accept logins from users that present an IP address as an IKE identity type and the IP address resides within the specified network. The **no** version removes the peer IKE identity.

Syntax ike peer-identity ip address *ipAddress* [*ipMask*]

no ike peer-identity ip address ip address

- *ipAddress*—IP address in 32-bit dotted decimal format (for example, 192.56.32.2)
- *ipMask*—Mask for associated IP subnet in dotted decimal or prefix length notation

Mode IPSec Tunnel Profile Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

ike peer-identity username

Description Enables this profile to accept logins from users that present a userFQDN as an IKE identity type and the username portion of the IKE identity matches the username setting for this profile. The **no** version removes the peer IKE identity.

Syntax ike peer-identity username *userName*

no ike peer-identity ip address username

- *userName*—String of 1–32 characters used as the user name

Mode IPSec Tunnel Profile Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

import map

Description Associates a route map with a VRF to modify and filter routes imported by the VRF from the global BGP VPN RIB. Both IPv4 and IPv6 routes are imported unless you issue the appropriate keyword to restrict importation. The **no** version enables all routes whose route targets match the import route targets of the VRF to be imported without applying a route map.

Syntax import map [ipv4 | ipv6] *routeMap*

no import map [ipv4 | ipv6]

- ipv4—Specifies that only IPv4 routes are imported from the global BGP VPN RIB
- ipv6—Specifies that only IPv6 routes are imported from the global BGP VPN RIB
- *routeMap*—Name of a route map; string of up to 32 alphanumeric characters

Mode VRF Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

inarp

Description In ATM VC Configuration mode, enables Inverse ARP (InARP) on an ATM PVC that resides on an ATM 1483 NBMA subinterface. Optionally, you can specify the InARP refresh rate. The **inarp** command is valid only for data PVCs configured with **aal5snap** encapsulation; you cannot use this command for data PVCs with other encapsulation types or for control (ILMI or signaling) PVCs. The **no** version restores the default behavior, which disables InARP.

In ATM VC Class Configuration mode, enables InARP as part of a VC class definition that you assign to an ATM data PVC. The **no** version restores the default behavior, which disables InARP, in the VC class.

Syntax inarp [*frequency*]

no inarp

- *frequency*—InARP refresh rate in minutes, in the range 1–60; default value is 15

Mode ATM VC Configuration, ATM VC Class Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.
ATM VC Class Configuration mode added in JUNOSe Release 7.3.0.

include circuit-identifier

Description Specifies that the circuit identifier is included when the router automatically generates a username for an IP service profile. The **no** version disables inclusion of the circuit identifier.

Syntax include circuit-identifier *circuitType* [prepend-circuit-type]

no include circuit-identifier

- *circuitType*—Type of circuit; atm or vlan
- prepend-circuit-type—Specifies that the circuit type is included in the username

Mode IP Service Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

include dhcp-option 82

Description Specifies that the agent-circuit-id suboption or the agent-remote-id suboption of the DHCP relay agent information option (option 82) is included when the router automatically generates a username for an IP service profile. The **no** version disables inclusion of the suboption.

Syntax [no] include dhcp-option 82 { agent-circuit-id | agent-remote-id }

Mode IP Service Profile Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

include hostname

Description Specifies that the router's hostname is included when the router automatically generates a username for an IP service profile. The **no** version disables inclusion of the hostname.

Syntax [no] include hostname

Mode IP Service Profile Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

include ip-address

Description Specifies that the IP address is included when the router automatically generates a username for an IP service profile. The **no** version disables inclusion of the IP address.

Syntax [no] include ip-address

Mode IP Service Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

include mac-address

Description Specifies that the MAC address is included when the router automatically generates a username for an IP service profile. The **no** version disables inclusion of the MAC address.

Syntax [no] include mac-address

Mode IP Service Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

include virtual-router-name

Description Specifies that the virtual router name is included when the router automatically generates a username for an IP service profile. The **no** version disables inclusion of the virtual router name.

Syntax [no] include virtual-router-name

Mode IP Service Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

index

Description Sets a next hop at a particular index in the MPLS explicit path. The **no** version removes the next hop from the index.

Syntax index *indexNumber* next-address *ipAddress* [[mask] *ipMask*] [loose]

no index *indexNumber*

- *indexNumber*—Number of a node in an ordered set of abstract nodes; in the range 1–255
- *ipAddress*—Address of the next hop
- *ipMask*—[not currently used] mask for the next adjacent address
- loose—Node is not necessarily directly connected (adjacent) to the previous node in the path. If loose is not configured, the configuration defaults to strict. Strict indicates that the node is directly connected to the previous node.

Mode Explicit Path Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

instance-interface-type

Description Assigns an instance-interface type to a QoS parameter definition. Instance-interface types indicate the interfaces for which QoS clients can assign QoS parameter instances. You can specify up to eight instance-interface types for each parameter definition. The **no** version removes the specified instance-interface type from the parameter definition.

Syntax instance-interface-type *instanceInterfaceType*

no instance-interface-type { *instanceInterfaceType* | all }

- *instanceInterfaceType*—One of the following instance-interface types: atm, atm-vc, atm-vp, bridge, ethernet, fr-vc, ip, ip-tunnel, ipv6, lag, l2tp-session, l2tp-tunnel, lsp, pppoe, serial, server-port, svlan, vlan
- all—Removes all instance-interface types

Mode QoS Parameter Definition

Release Information Command introduced in JUNOSe Release 7.1.0.
lag keyword added in JUNOSe Release 8.1.0.

Related Topics

- Configuring a Basic Parameter Definition for QoS Administrators

interface

Description Configures an interface. The **no** version removes the subinterface or the logical interface.

NOTE: See the individual **interface** command entries for the syntax for each type of interface.

Syntax [no] interface *interfaceType interfaceSpecifier* [*extension*]

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *extension*—Option that depends on the type of interface

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

interface atm

Description Configures an ATM interface or subinterface type. The **no** version removes the interface or subinterface.

NOTE: On the OC3-2 GE APS I/O module, you can configure only OC3/STM1 ATM interfaces in ports 0 and 1. Port 2 is reserved for a Gigabit Ethernet interface.

Syntax [no] interface atm *interfaceSpecifier* [multipoint | point-to-point]

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- multipoint—Specifies an NBMA subinterface
- point-to-point—Specifies an ATM interface or subinterface; default

Mode Global Configuration, Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring an MPLS Pseudowire with VCC Cell Relay Encapsulation
- Configuring Local ATM Cross-Connects with AAL5 Encapsulation
- Configuring MPLS LSPs

interface-event-disable

Description Specifies that RIP does not purge the routing table on a RIP interface that has been brought down. The **no** version restores the default condition, wherein RIP does purge the routing table on an interface after a down event.

Syntax [no] interface-event-disable

Mode Address Family Configuration, Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

interface fastEthernet

Description Specifies a Fast Ethernet interface or subinterface or creates a subinterface over a Fast Ethernet interface. The **no** version removes the interface or subinterface.

Syntax [no] interface fastEthernet *interfaceSpecifier*

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring Customer-facing Interfaces in the L2VPN Instance
- Configuring Ethernet/VLAN Layer 2 Services
- Configuring Local Cross-Connects Between Ethernet/VLAN Interfaces
- Configuring S-VLAN Tunnels for Layer 2 Services

interface gigabitEthernet

Description Specifies or creates a Gigabit Ethernet interface or a subinterface over a Gigabit Ethernet interface. The **no** version removes the interface or subinterface.

NOTE: On the GE I/O module, you can configure only the primary port, 0. The router automatically uses the redundant port, 0R, if the primary port fails.

On the GE-2 APS I/O module, you can configure only the primary ports, 0 and 1. The router automatically uses the corresponding redundant port, 0R or 1R, if the primary port fails.

On the OC3-2 GE APS I/O module, you can configure only a Gigabit Ethernet interface in port 2. Ports 0 and 1 are reserved for OC3/STM1 ATM interfaces.

On the ES-2 GE-4 IOA, you can configure all four ports.

Syntax [no] interface gigabitEthernet *interfaceSpecifier*

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring the QoS Shaping Mode for Ethernet Interfaces on the ES2 4G LM
- Creating a QoS Interface Hierarchy for Bulk-Configured VLAN Subinterfaces with RADIUS
- Configuring a Parameter Definition to Shape Ethernet Traffic Using Cell Mode

interface ip

Description Defines a shared IP interface. The **no** version removes the IP interface.

Syntax [no] interface ip *interfaceName*

- *interfaceName*—String of up to 15 characters

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

interface ipv6

Description Defines a shared IPv6 interface. The **no** version removes the IPv6 interface.

Syntax [no] interface ipv6 *interfaceName*

- *interfaceName*—String of up to 15 characters

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

interface lag

Description Creates an IEEE 802.3ad link aggregation group (LAG) interface, also known as a LAG bundle, or a subinterface in a LAG bundle. Link aggregation enables you to group multiple Ethernet physical interfaces configured on the same module and with the same characteristics into a single logical interface. The individual Ethernet interfaces are referred to as member links of the LAG bundle. The **no** version removes the LAG bundle or subinterface.

Syntax [no] interface lag *interfaceSpecifier*

- *interfaceSpecifier*—LAG interface specifier; see *Interface Types and Specifiers* in *About This Guide*

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring the Scheduler Hierarchy for Hashed Load Balancing in 802.3ad Link Aggregation Groups
- Configuring the Scheduler Hierarchy for Subscriber Load Balancing in 802.3ad Link Aggregation Groups
- Configuring Load Rebalancing Parameters for 802.3ad Link Aggregation Groups

interface loopback

Description Defines a loopback interface, which provides a stable address for protocols (for example, BGP, Telnet, or LDP) to use so that they can avoid any impact if a physical interface goes down. The loopback interface sends packets back to the router or access server for local processing. Any packets routed from the loopback interface, but not destined to the loopback interface, are dropped. The **no** version deletes the loopback interface.

NOTE: Do not confuse loopback with the null 0 interface. Traffic routed to null 0 is discarded on the line module.

Syntax [no] interface loopback *interfaceSpecifier*

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring an MPLS Pseudowire with VCC Cell Relay Encapsulation
- Configuring Local ATM Cross-Connects with AAL5 Encapsulation
- Configuring Local Cross-Connects Between Ethernet/VLAN Interfaces
- Configuring the Loopback Interface and Router ID for BGP

interface mlframe-relay

Description Defines an MLFR bundle or a subinterface in a bundle. The **no** version removes the bundle or subinterface.

Syntax [no] interface mlframe-relay *interfaceSpecifier*

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

interface mlppp

Description Creates an MLPPP network interface, also known as the MLPPP bundle. The **no** version deletes the MLPPP bundle.

Syntax [no] interface mlppp *interfaceSpecifier*

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

interface null

Description Selects the null interface, which does not forward traffic. The null interface acts as a data sink. Though you can access the null interface, you cannot configure any values for it or delete it. There is no **no** version.

Syntax interface null 0

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

interface pos

Description Configures a Packet over SONET interface. The **no** version removes the interface.

Syntax [no] interface pos *interfaceSpecifier*

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring HDLC Layer 2 Services

interface serial

Description Specifies the location of the serial interface on CT3 and COCX-F3 modules. The **no** version disables the interface.

Syntax [no] interface serial *interfaceSpecifier*

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

Configuring Frame Relay Layer 2 Services

Related Topics

- Configuring HDLC Layer 2 Services

interface tenGigabitEthernet

Description Specifies or creates a 10-Gigabit Ethernet interface or a subinterface over a 10-Gigabit Ethernet interface. The **no** version removes the interface or subinterface.

Syntax [no] interface tenGigabitEthernet *interfaceSpecifier*

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

interface tunnel

Description Creates a tunnel interface for use by DVMRP, GRE, IPSec, or MPLS. You can specify that the tunnel be established in the routing space of a virtual router other than the current VR. If you specify another VR, all tunnel commands apply to the tunnel in that VR. If you do not specify another VR, tunnel commands apply to the current VR. For DVMRP and GRE tunnels, you can specify that the tunnel be protected with IPSec in transport mode. The **no** version removes the tunnel interface.

Syntax [no] interface tunnel *interfaceSpecifier* [transport-virtual-router *vrName*] [ipsec-transport]

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *vrName*—Name of virtual router (other than the current VR) in which the tunnel will be established
- ipsec-transport—Indicates that the tunnel is protected with IPSec in transport mode; used for GRE or DVMRP tunnels only

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

invert data

Description Enables data stream inversion. Data stream inversion must be turned on by network personnel at the other end of the line. The **no** version disables data stream inversion.

Syntax [no] invert data

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip

Description Modifies the subscriber policy for IP to define whether the subscriber (client) interfaces that belong to a bridge group or to a VPLS instance forward (permit) or filter (deny) IP packets. The **no** version restores the default value, permit IP packets.

You cannot change the default subscriber policy values for trunk (server) interfaces that belong to a bridge group or to a VPLS instance. You also cannot change the default subscriber policy values for a VPLS virtual core interface, which acts as a trunk interface. The VPLS virtual core interface represents all of the MPLS tunnels from the router to the remote VPLS edge (VE) devices.

Syntax ip { permit | deny }

no ip

- permit—*S*pecifies that the subscriber interface associated with the bridge group or VPLS instance forwards IP packets
- deny—*S*pecifies that the subscriber interface associated with the bridge group or VPLS instance filters IP packets

Mode Subscriber Policy Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip access-routes

Description Enables the ability to create host access routes on a PPP interface, which is useful for the B-RAS application. It also enables an access route in a profile. The **no** version disables the feature.

Syntax [no] ip access-routes

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip access-route table-map

Description Filters access routes before an access list adds them to the routing table. The **no** version deletes the table map.

Syntax [no] ip access-route table-map *mapName*

- *mapName*—Name of the table map that you want the router to use

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip address

Description Sets a primary or secondary IP address for an interface or subinterface. The **no** version removes an IP address or disables IP processing. You must specify the layer 2 encapsulation before you can set the IP address.

Syntax ip address *ipAddress ipMask* [secondary]

no ip address [*ipAddress ipMask* [secondary]]

- *ipAddress*—IP address in 32-bit dotted decimal format (for example, 192.56.32.2)
- *ipMask*—mask for associated IP subnet in dotted decimal or prefix length notation
- secondary—Specifies that the configured address is a secondary IP address; if omitted, the configured address is the primary IP address

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring Local ATM Cross-Connects with AAL5 Encapsulation
- Configuring Local Cross-Connects Between Ethernet/VLAN Interfaces
- Configuring the Loopback Interface and Router ID for BGP
- Configuring MPLS LSPs

ip-address

Description Specifies the IP address parameter for a user entry in the local user database. The **no** version deletes the IP address parameter from the user entry.

Syntax ip-address *ipAddress*

[no] ip-address

- *ipAddress*—IP address in 32-bit dotted decimal format (for example, 192.56.32.2)

Mode Local User Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip address-pool

Description Specifies to the router where to get an IP address for the remote user. The **no** version uses the default value, **local**.

Syntax ip address-pool { dhcp | local | none }

no ip address-pool

- dhcp—Enables the use of a DHCP server for address allocations
- local—Enables the use of local address pool for address allocations
- none—Does not enable an IP address pool

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip-address-pool

Description Specifies the IP address pool parameter for a user entry in the local user database. The address pool is used to assign an IP address to the subscriber. The **no** version deletes the IP address pool parameter from the user entry in the local user database.

Syntax ip-address-pool *poolName*

no ip-address-pool

- *poolName*—Name of IP address pool

Mode Local User Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip address virtual-router

Description Limits the scope of the IKE policy rule to the specified local IP address on the specified virtual router. This limitation ensures that this policy rule is evaluated for IKE source address evaluations for only the specified IP address and virtual router. The **no** version removes IP address and virtual router limitation.

Syntax [no] ip address *ipAddress* virtual-router *vrName*

no ip address

- *ipAddress*—IP address in 32-bit dotted decimal format (for example, 192.56.32.2) to which you want to limit this policy rule
- *vrName*—Name of virtual router to which you want to limit this policy rule

Mode IKE Policy Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

ip alwaysup

Description Forces the interface to appear as if it is up, regardless of the state of the lower layers. Use this command to reduce route topology changes when the network attached to this link is single-homed. The **no** version makes the interface appear in its current state.

Syntax [no] ip alwaysup

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip analyzer

Description Configures an interface as an analyzer interface, for use in an interface mirroring configuration. The **no** version removes the analyzer interface configuration from the interface.

Syntax ip analyzer [default]

no ip analyzer

- default—Specifies that this interface is the default analyzer interface for the virtual router

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring CLI-Based Mirroring
- Configuring RADIUS-Based Mirroring

ip as-path access-list

Description Defines a BGP-related access list. You can specify an access list filter on both inbound and outbound BGP routes. Each filter is an access list based on regular expressions. If the regular expression matches the representation of the AS path of the route as an ASCII string, then the permit or deny condition applies. The AS path does not contain the local AS number. The **no** version removes a single access list entry if **permit** or **deny** and a *pathExpression* are specified. Otherwise, the entire access list is removed.

Syntax ip as-path access-list *accessListName* { permit | deny } *pathExpression*

no ip as-path access-list *accessListName* [{ permit | deny } *pathExpression*]

- *accessListName*—Name of the access list; a string of up to 32 characters
- permit—Permits access for matching conditions
- deny—Denies access to matching conditions
- *pathExpression*—Regular expression describing the AS paths to be matched

  Use a sequence of one or more elements, each of which is either an AS number or one of the following punctuation characters:

  ^ start of the path

  $ end of the path

  { start of an AS_SET

  } end of an AS_SET

  (start of an AS_CONFED_SET or AS_CONFED_SEQ

) end of an AS_CONFED_SET or AS_CONFED_SEQ

  Use the following regular expression metacharacters to match individual elements:

  . matches any single element

  * matches zero or more occurrences of any element

  + matches one or more occurrences of any element

  [ ] matches any elements enclosed between brackets ([ ])

  – hyphen; used within brackets to specify a range of AS numbers

  ^ matches any AS number except the ones specified when used as a first item within brackets

  _ underscore; used in implementations on routers from other vendors on either side of a path to specify a literal and disallow substring matching. Allowed but not required in our CLI.

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip atm-vc

Description Associates a protocol and address to a specific virtual circuit. The **no** version removes the association.

Syntax ip *ipAddress* atm-vc *vcd* broadcast

no ip *ipAddress* atm-vc *vcd*

- *ipAddress*—IP address to be associated with the virtual circuit
- *vcd*—Number in the range 1–2147483647; virtual circuit descriptor; an identifier for the VC in other commands
- broadcast—Specifies that the circuit should participate in broadcast operations

Mode Map List Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip auto-configure ip-subscriber

Description Configures a primary IP interface to support creation of dynamic subscriber interfaces. The **include-primary** and **exclude-primary** keywords specify whether the primary interface can be assigned to a subscriber. The **no** version disables creation of dynamic subscriber interfaces on this primary IP interface.

Syntax [no] ip auto-configure ip-subscriber [include-primary | exclude-primary]

- include-primary—Specifies that the primary interface can be assigned to a subscriber; the **no** version disables the assignment of the primary interface
- exclude-primary—Specifies that the primary interface cannot be assigned to a subscriber; the **no** version enables the assignment of the primary interface

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
include-primary and **exclude-primary** keywords added in JUNOSe Release 7.1.0.

ip auto-detect ip-subscriber

Description Sets the router's packet detect feature, specifying that IP automatically detect packets that do not match any entries in the demultiplexer table. When an unmatched packet is detected, an event is generated that determines whether to create a dynamic subscriber interface or to configure an existing interface. The **no** version disables autodetection.

Syntax [no] ip auto-detect ip-subscriber

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip bgp-community new-format

Description Specifies that communities must be displayed in *AA*:*NN* format, where *AA* is a number that identifies the autonomous system and *NN* is a number that identifies the community within the autonomous system. The **no** version restores the default display.

Syntax [no] ip bgp-community new-format

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip bgp-confed-as-set new-format

Description Specifies that AS-confed-sets must be displayed within square brackets, [ ], with the ASs delimited by commas. The **no** version restores the default, displaying AS-confed-sets within parentheses, ( ), with the ASs delimited by spaces.

Syntax [no] ip bgp-confed-as-set new-format

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip block-multicast-sources

Description Prevents mroute creation by blocking multicast traffic that has a scope larger than link-local (for example, global). In Profile Configuration mode, blocks multicast sources per user on dynamic IP interfaces. The **no** version restores the default behavior of creating mroutes upon receiving multicast packets.

Syntax [no] ip block-multicast-sources

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
Profile Configuration mode added in JUNOSe Release 8.1.0.

ip broadcast-address

Description Defines a broadcast address for an interface. The **no** version restores the default IP broadcast address.

Syntax [no] ip broadcast-address [*ipAddress*]

- *ipAddress*—Broadcast IP address

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip classifier-list

Description Creates or modifies a classifier control list. Use the **not** keyword to deny traffic for a specific protocol, source address, or destination address. Use the **any** keyword to allow traffic to any source or destination address. The **no** version removes the classifier control list.

Syntax

ip classifier-list *classifierName* [traffic-class *trafficClassName*]
[color { green | yellow | red }] [user-packet-class *userPacketClassValue*]
[source-route-class *routeClassValue*] [destination-route-class *routeClassValue*]
[local { true | false }] [not] { *protocol* }
[not] { *sourceAddress sourceMask* | host *sourceHostAddress* | any } [*sourceQualifier*]
[not] { *destinationAddress destinationMask* | host *destinationHostAddress* | any }
[*destinationQualifier*] [*tcpQualifier*] [ip-flags *ipFlags*]
[ip-frag-offset { eq 0 | eq 1 | gt 1 }]
[precedence *precNum* | dsField *dsFieldNum* | tos *tosNum*]

no ip classifier-list *classifierName* [*classifierNumber*]

- *classifierName*—Name of the classifier control list entry
- *trafficClassName*—Name of the traffic class to match
- green—Matches packet color to green, indicating a low drop preference
- yellow—Matches packet color to yellow, indicating a medium drop preference
- red—Matches packet color to red, indicating a high drop preference
- *userPacketClassValue*—User packet value to match; in the range 0–15
- *routeClassValue*—Value of the route-class; in the range 0–255
- local—Specifies traffic destined for this interface
  - true—Matches packets that are locally destined
  - false—Matches packets that are not locally destined
- not—Matches any except the immediately following protocol or address
- *protocol*—Protocol name (IGMP, IP, TCP, or UDP) or number (in the range 0–255) to match
- *sourceAddress*—Source address to match
- *sourceMask*—Wild-card mask to apply to the source address
- host—Matches source or destination address as a host
- *sourceHostAddress*—Source host address to match
- any—Matches any source or destination address

- *sourceQualifier*—For UDP or TCP protocols, one of the following protocol-specific classifier parameters. See *JUNOSe Policy Management Configuration Guide, Chapter 2, Creating Classifier Control Lists for Policies*, for details.
  - *portOperator*—One of the following Boolean operator keywords: **lt** (less than), **gt** (greater than), **eq** (equal to), **ne** (not equal), or **range** (range of port numbers)
  - range—Single port number or a range of port numbers
- *destinationAddress*—Destination address to match
- *destinationMask*—Wild-card mask to apply to the destination address
- *destinationHostAddress*—Destination host address to match
- *destinationQualifier*—One of the following protocol-specific classifier parameters for destination TCP or UDP ports, ICMP code and type, or IGMP type. The *portOperator* and port range are used with TCP and UDP. The *icmpType*, *icmpCode*, and *igmpType* parameters are used with ICMP and IGMP.
  - *portOperator*—one of the following Boolean operator keywords: **lt** (less than), **gt** (greater than), **eq** (equal to), or **ne** (not equal), or **range** (range of port numbers) (TCP and UDP only)
  - range—Single port number or a range of port numbers
  - *icmpType*—ICMP message type (ICMP only)
  - *icmpCode*—ICMP message code (ICMP only)
  - *igmpType*—IGMP message type (IGMP only)
- *tcpQualifier*—TCP flags classification parameters
- *tcpFlag*—For TCP only; a logic equation that specifies flag bit values; ! means logical NOT and & means logical AND; use any of the following flag names:
  - ack—0x10
  - fin—0x01
  - push—0x08
  - rst—0x04
  - syn—0x02
  - urgent—0x20
- *ipFlags*—Logic equation that specifies flag bit values; ! means logical NOT and & means logical AND; use any of the following flag names:
  - dont-fragment—0x02
  - more-fragments—0x01
  - reserved—0x04
- ip-frag-offset—Matches the specified IP fragmentation offset; use any of the following:
  - eq 0—Equals 0
  - eq 1—Equals 1
  - gt 1—Greater than 1

- *precNum*—Upper three bits of the ToS byte; in the range 0–7
- *dsFieldNum*—Upper six bits of the ToS byte; in the range 0–63
- *tosNum*—Whole eight bits of the ToS byte; in the range 0–255
- *classifierNumber*—Index of the classifier control list entry to be deleted

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Creating or Modifying Classifier Control Lists for IP Policy Lists

ip community-list

Description Creates a community list for BGP and controls access to it. The **no** version removes the community list, including all list entries.

Syntax Using a regular expression to specify the community:

[no] ip community-list *communityLisName* { permit | deny } *communityExpression*

Using some other method to specify the community:

ip community-list *communityLisName* { permit | deny }
{ *communityNumber* | *asCommunityNumber* | no-export | no-advertise | local-as | internet } [*communityNumber* | *asCommunityNumber* | no-export | no-advertise | local-as | internet]*

no ip community-list *communityLisName* [{ permit | deny }
[{ *communityNumber* | *asCommunityNumber* | no-export | no-advertise | local-as | internet }] [*communityNumber* | *asCommunityNumber* | no-export | no-advertise | local-as | internet]*]

- *communityLisName*—Name of a community list; a string of up to 32 characters; identifies one or more permit or deny groups of communities; used for standard community lists
- permit—Permits access for a matching condition
- deny—Denies access for a matching condition
- *communityExpression*—Regular expression that matches the community

- *communityNumber*—Community number in the range 1–4294967295
- *asCommunityNumber*—Community number in the format *AA*:*NN*, where *AA* is a number that identifies the autonomous system and *NN* is a number that identifies the community within the autonomous system.
- no-export—Specifies that BGP does not advertise this route outside a BGP confederation boundary
- no-advertise—Specifies that BGP does not advertise this route to any peer (internal or external)
- local-as—Specifies that BGP does not advertise this route to external peers; sometimes known as the no-export-subconfed community
- internet—Specifies the Internet community
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip debounce-time

Description Defines the minimum time an IP interface must be in a given state—for example, up or down—before being reported. The **no** version removes the debounce time.

Syntax ip debounce-time [vrf *vrfName*] *period*

no ip debounce-time [vrf *vrfName*]

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *period*—Interval in the range 0–60000 milliseconds

Mode Global Configuration, Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip demux-type da-prefix

Description Specifies that a subscriber interface will demultiplex traffic using destination addresses. The **no** version restores the default situation, in which the subscriber interface demultiplexes traffic using source addresses.

Syntax [no] ip demux-type da-prefix

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip description

Description Assigns a text description or an alias to a static IP interface or subinterface. If no IP interface currently exists, then a static IP interface is automatically created on the current layer 2 interface and the description is applied to that static IP interface. You cannot assign a profile to a layer 2 interface that has a static interface configured above it. Use the **show ip interface** command to display the text description. The **no** version removes the description or alias.

NOTE: This command is replacing the **description** command to assign a description to a static IP interface. The **description** command may be removed completely from Interface Configuration mode in a future release.

Syntax ip description *name*

no ip description

- *name*—Name for the static IP interface; string of up to 256 characters

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip destination-prefix

Description Configures a subscriber interface or a primary IP interface that is enabled for dynamic creation of subscriber interfaces to demultiplex traffic with the specified destination address. The **no** version removes the association between the interface and the specified destination address.

Syntax [no] ip destination-prefix *ipAddress ipAddressMask* deny

- *ipAddress*—Destination IP address that the router uses to identify packets for this interface
- *ipAddressMask*—Network mask for associated IP subnet
- deny—Filters packets matching this command

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip dhcp-capture

Description Configures the E-series router to capture and log DHCP packet information for an interface. By default, DHCP packet information is not captured. The **no** version restores the default behavior.

Syntax ip dhcp-capture { all | receive | transmit } [priority { low | high }]

no ip dhcp-capture { all | receive | transmit }

- all—Captures received and transmitted packets
- receive—Captures received packets
- transmit—Captures transmitted packets
- low—Captured packets arrive with low priority; the default priority
- high—Captured packets arrive with high priority

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

ip dhcp-external auto-configure

Description Configures the E-series router to automatically create the user's DSI. This command is specific to a virtual router. The **no** version disables the autoconfigure feature.

Syntax [no] ip dhcp-external auto-configure [agent-circuit-identifier]

- agent-circuit-identifier—Creates dynamic subscriber interfaces built over dynamic VLANs that are based on the agent-circuit-id option (suboption 1) of the option 82 field in DHCP messages.

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
agent-circuit-identifier keyword added in JUNOSe Release 7.3.0.

ip dhcp-external disregard-giaddr-next-hop

Description Configures the DHCP external application to disregard the giaddr in packets destined for the DHCP server when the next hop for a subscriber's access route is determined. The **no** version returns to the default, in which DHCP external uses the giaddr to determine the next hop.

Syntax [no] ip dhcp-external disregard-giaddr-next-hop

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip dhcp-external server-address

Description Configures a DHCP server that is used to determine which DHCP packets are monitored. The **no** version removes the DHCP server.

Syntax [no] ip dhcp-external server-address *ipAddress*

- *ipAddress*—IP address of the external DHCP server; you can specify a maximum of four servers

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip dhcp-external server-sync

Description Creates subscriber state information based on lease renewals when the external DHCP server is unsynchronized with the E-series router. The **no** version disables this feature.

Syntax [no] ip dhcp-external server-sync

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip dhcp-local auth domain

Description Specifies a domain name for a username that is locally configured for a DHCP standalone mode client. In standalone mode, the locally configured username is presented to AAA in an authentication request. The **no** version removes the domain name.

Syntax [no] ip dhcp-local auth domain *domainName*

- *domainName*—String of 1–32 characters used as the domain name

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

ip dhcp-local auth include

Description Includes optional information as part of the locally configured username for a DHCP standalone mode client. In standalone mode, the username is presented to AAA in an authentication request. The **no** version removes the specified optional information.

Syntax [no] ip dhcp-local auth include { circuit-identifier | circuit-type | mac-address | option82 | virtual-router-name }

- circuit-identifier—Specifies the circuit identifier of the interface on which the DHCP client's request was received
- circuit-type—Specifies the circuit type of the interface on which the DHCP client's request was received
- mac-address—Specifies the DHCP client's MAC address
- option82—Specifies the DHCP client's Option 82 value
- virtual-router-name—Specifies the DHCP local server's virtual router name

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

ip dhcp-local auth password

Description Assigns a password used to authenticate a locally configured DHCP standalone mode client. In DHCP standalone mode, the password is presented to AAA in an authentication request. The **no** version removes the password.

Syntax [no] ip dhcp-local auth password *password*

- *password*—String of 1–32 characters used as the password

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

ip dhcp-local auth user-prefix

Description Specifies a user prefix for a username that is locally configured for a DHCP standalone mode client. In DHCP standalone mode, the username is presented to AAA in an authentication request. The **no** version removes the user prefix.

Syntax [no] ip dhcp-local auth user-prefix *userNamePrefix*

- *userNamePrefix*—String of 1–32 characters used as the prefix for a locally configured username

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

ip dhcp-local auto-configure agent-circuit-identifier

Description Configures the DHCP local server to support the creation of dynamic subscriber interfaces built over dynamic VLANs that are based on the agent-circuit-id option (suboption 1) of the option 82 field in DHCP messages. This command is specific to a virtual router. The **no** version disables the autoconfigure feature.

Syntax [no] ip dhcp-local auto-configure agent-circuit-identifier

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

ip dhcp-local cable-modem

Description Specifies the IP address of the external DHCP server to which the DHCP local server will relay DHCP messages from cable modems. The **no** version removes the cable modem configuration.

NOTE: This command is deprecated and might be removed completely in a future release. Use the **set dhcp vendor-option** command to configure the vendor class identifier option to match the string used by cable modems to replace the function of this command.

Syntax [no] ip dhcp-local cable-modem dhcp-server *ipAddress*

- *ipAddress*—IP address of the cable modem DHCP server

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip dhcp-local excluded-address

Description Specifies IP addresses that the DHCP local server should not supply from the default address pool because those addresses are already used by devices on the subnet. The **no** version allows the DHCP local server to supply the specified IP address.

Syntax [no] ip dhcp-local excluded-address *ipAddressStart ipAddressStop*

- *ipAddressStart*—Single IP address or start of the range of IP addresses that the DHCP local server should not supply
- *ipAddressStop*—End of the range of IP addresses that the DHCP local server should not supply

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip dhcp-local limit

Description Specifies the maximum number of IP addresses that the DHCP local server can supply to each VPI/VCI, VLAN, or Ethernet subnetwork, or to a particular interface or subinterface. The **no** version restores the default value.

Syntax ip dhcp-local limit
{ atm | ethernet | vlan | interface *InterfaceType InterfaceSpecifier* } *value*

no ip dhcp-local limit [atm | ethernet | vlan | interface *InterfaceType InterfaceSpecifier*]

- atm—Specifies the limit for VPIs and VCIs
- ethernet—Specifies the limit for Ethernet subnets
- vlan—Specifies the limit for VLANs
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *value*—Maximum number of leases, in the range 0–48000; default is 48000

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
interface keyword and *interfaceType* and *interfaceSpecifier* variables added in JUNOSe Release 7.1.0.

ip dhcp-local pool

Description Accesses DHCP Local Pool Configuration mode. The **no** version prevents the DHCP local server from supplying IP addresses from the specified pool.

Syntax [no] ip dhcp-local pool { *poolName* | default }

- *poolName*—Name of the address pool
- default—Specifies the default address pool

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip dhcp-local snmpTraps

Description Enables DHCP local server SNMP traps. The **no** version disables DHCP local server SNMP traps.

Syntax [no] ip dhcp-local snmpTraps

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip dhcp-local unique-client-ids

Description Configures the method that DHCP local server uses when it receives a DHCP DISCOVER or REQUEST packet from a client ID or hardware address that matches the client ID or hardware address of a currently bound client on another subnet or subinterface.

Use this command to specify that DHCP local server uses a method that considers a request from a client with a duplicate client ID or hardware address to be from a roaming client—the server then terminates the currently bound client's existing lease and assigns a new address to the requesting client.

The **no** version restores the default behavior, in which DHCP local server uses the DHCP client's subnet or subinterface to differentiate between two clients that use the same client ID or hardware address—the DHCP server processes requests in the normal manner.

NOTE: This command replaces the **ip dhcp-local inhibit-roaming** command, which has been removed from the CLI.

Syntax [no] ip dhcp-local unique-client-ids

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.0.0.

ip dhcp-server

Description Adds the IP address of a single DHCP server to the list of DHCP servers from which the router can request addresses to allocate to remote users. A maximum of five DHCP servers can be specified. The **no** version removes the specified DHCP server or removes all DHCP servers from the list.

Syntax ip dhcp-server *dhcpServerAddress* [*adminStatus*]

no ip dhcp-server [*dhcpServerAddress* [*adminStatus*]]

- *dhcpServerAddress*—IP address of the DHCP server that will allocate addresses for remote users
- *adminStatus*—One of the following options:
  - disable—Disables the DHCP server
  - drain—Drains the DHCP server

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip directed-broadcast

Description Enables translation of directed broadcast to physical broadcasts. The **no** version disables the function.

Syntax [no] ip directed-broadcast

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip disable-forwarding

Description Disables forwarding of packets on the SRP Ethernet interface to maintain router performance. The **no** version enables forwarding of packets on the SRP Ethernet interface. You see an error message if you try to set this command for interfaces other than the SRP Ethernet interface.

Syntax [no] ip disable-forwarding

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip domain-lookup

Description Without the **transit-virtual-router** option, enables the router to query the configured DNS name servers when it needs an IP hostname–to–IP address translation. With the **transit-virtual-router** option, configures a virtual router to use the name servers you configured for another virtual router. The **no** version without the **transit-virtual-router** option restores the default situation, in which the router does not query the DNS server. The **no** version with the **transit-virtual-router** option stops a virtual router from using the same name servers you configured for another virtual router.

Syntax [no] ip domain-lookup [transit-virtual-router *vrName*]

- *vrName*—Name of the virtual router that has the DNS configuration you want to use for a second virtual router

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip domain-name

Description Defines a default domain name for the clients that a name resolver serves. The **no** version deletes the domain name; that is, the domain name will no longer be appended to hostnames in the static host table.

Syntax [no] ip domain-name *domainName*

- *domainName*—Default domain name for your hosts

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip dos-protection-group

Description Attaches an IP denial of service (DoS) protection group to an interface. The **no** version removes the attachment of the DoS protection group from the interface.

Syntax ip dos-protection-group *groupName*

no ip dos-protection-group

- *groupName*—Name of the DoS protection group; string of up to 31 alphanumeric characters

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

ip dvmrp

Description Activates DVMRP on an interface. The **no** version removes DVMRP from an interface.

Syntax [no] ip dvmrp

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip dvmrp accept-filter

Description Filters incoming DVMRP reports in accordance with a standard IP access list. The **no** version disables the filter.

Syntax [no] ip dvmrp accept-filter *listName1* [*distance*] neighbor-list *listName2*

- *listName1*—Name of the IP access list. If the name is 0, the interface accepts all destinations. You can specify a simple or extended access list; with an extended access list you can specify an address and a subnet mask.
- *distance*—Number in the range 0–255; default value is 0; the distance associated with the DVMRP route when the router determines the RPF interface for the source of a multicast packet
- *listName2*—Name of an access list containing the neighbors from which the router will accept reports. If the name is 0, the interface accepts destinations from all its neighbors.

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip dvmrp announce-filter

Description Specifies a list of DVMRP routes that the router will advertise on an interface. The **no** version restores the default situation, in which the router advertises all known routes on the interface.

Syntax ip dvmrp announce-filter *listName*

no ip dvmrp announce-filter

- *listName*—Name of the IP access list that specifies the DVMRP routes that the router will advertise on the interface. You can specify a simple or extended access list; with an extended access list you can specify an address and a subnet mask.

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip dvmrp auto-summary

Description Summarizes routes automatically on an interface. By default, automatic summarization is enabled. The **no** version disables automatic summarization.

Syntax [no] ip dvmrp auto-summary

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip dvmrp disable

Description Disables DVMRP on an interface without removing the DVMRP configuration. The **no** version reenables the DVMRP configuration on a disabled interface.

Syntax [no] ip dvmrp disable

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip dvmrp metric-offset

Description Adjusts the number of hops associated with routes passing through an interface. This action indicates that the route is more efficient or less efficient than an alternative route. The **no** version restores the default values.

Syntax [no] ip dvmrp metric-offset { in | out } [*increment*]

- in—Increments the number of hops for a DVMRP route advertised in incoming DVMRP reports. If you do not specify a key word, this option is the default.
- out—Increments the number of hops for a DVMRP route advertised in outgoing DVMRP reports
- *increment*—Number of hops associated with this interface; default value is 1 for incoming reports and 0 for outgoing reports.

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip dvmrp route-hog-notification

Description Sets the number of DVMRP routes that the router can record before it generates a system log warning message. The **no** version restores the default setting, 10,000 routes.

Syntax [no] ip dvmrp route-hog-notification [*limit*]

limit—Number in the range 0–2147483647

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip dvmrp route-limit

Description Limits the number of routes that the router can advertise on each interface. The default value is 7000. The **no** version removes the limit for the number of routes that the router can advertise on each interface.

Syntax [no] ip dvmrp route-limit [*limit*]

- *limit*—Number of routes that the router can advertise

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip dvmrp summary-address

Description Advertises a DVMRP summary address on the interface. The **no** version stops the advertising of a summary address on an interface.

Syntax [no] ip dvmrp summary-address *ipAddress mask* [metric *cost*]

- *ipAddress*—Summary address
- *mask*—Subnet mask
- *cost*—Cost associated with this summary address

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip dvmrp unicast-routing

Description Enables the exchange of DVMRP unicast routes on an interface not owned by DVMRP. The **no** version disables the exchange of DVMRP unicast routes on an interface not owned by DVMRP.

Syntax [no] ip dvmrp unicast-routing

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip dynamic-interface-prefix

Description Specifies the prefix for the names of dynamic shared IP interfaces created for overlapping BGP/MPLS VPNs. The **no** version restores the default prefix, **dyn**.

Syntax ip dynamic-interface-prefix [vrf *vrfName*] *prefix*

no ip dynamic-interface-prefix [vrf *vrfName*]

- *vrfName*—Name of the VRF in which the shared interface is created; a string of 1–32 alphanumeric characters
- *prefix*—String of 1–10 alphanumeric characters

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip explicit-path

Description Defines an explicit path by name and also enables or disables explicit path routing in implementations on routers from other vendors. See the **mpls explicit-path** command for a complete description and syntax.

ip extcommunity-list

Description Defines an extended-community (extcommunity) list to be referenced in a route map. The **no** version deletes the extcommunity.

Syntax ip extcommunity-list *listName* { permit | deny } *extendedCommunity* [*extendedCommunity*]*

no ip extcommunity-list *listName* [{ permit | deny } *extendedCommunity* [*extendedCommunity*]*]

- *listName*—Name of the extended-community list
- permit—Permits membership in the extended community for matching conditions
- deny—Denies membership in the extended community for matching conditions
- *extendedCommunity*—Extended community specified in the format: {rt | soo } { *ASN*:*nn* | *ipAddress*:*nn* }
  - rt—Specifies a route-target community; consists of one or more routers that can receive a set of routes advertised by BGP that carry the extended-community attribute
  - soo—Specifies a Site-of-Origin community; consists of one or more routers that injects a set of routes into BGP that carry the extended-community attribute
  - *ASN*:*nn*—Identifies the extended community by a 16-bit autonomous system number followed by a 32-bit integer
  - *ipAddress*:*nn*—Identifies the extended community identified by an IP address followed by a 16-bit integer
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip fallback global

Description Enables secondary routing table lookup for an interface in a virtual router forwarding table of the parent (global) virtual router if the initial route lookup on a VRF is unsuccessful. The **no** version discontinues secondary routing table lookup.

Syntax [no] ip fallback global

Mode VRF Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip filter-options all

Description Enables filtering of packets with IP options on an interface. IP options filtering is disabled by default. The **no** version disables filtering of packets with IP options.

Syntax [no] ip filter-options all

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Enabling IP Options Filtering

ip flow-aggregation cache

Description Creates an aggregation cache and accesses Flow Cache Configuration mode. The **no** version removes the aggregation cache and its configuration.

Syntax [no] ip flow-aggregation cache [as | destination-prefix | prefix | protocol-port | source-prefix]

- as—Specifies autonomous system aggregation
- destination prefix—Specifies destination prefix aggregation
- prefix—Specifies prefix aggregation
- protocol-port—Specifies protocol port aggregation
- source-prefix—Specifies source prefix aggregation

Mode Flow Cache Configuration, Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

ip flow-cache entries

Description Limits the number of entries in the flow cache (for all line modules in the router). The **no** version sets the number of entries back to its default value.

Syntax ip flow-cache entries *cacheEntries*

no ip flow-cache entries

- *cacheEntries*—Number of cache entries allowed for all line modules in the router in the range 1024–524288; default value is 65536

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip flow-cache timeout

Description Defines the J-Flow activity or inactivity timers. The **no** version restores the default value of each timer.

Syntax ip flow-cache timeout { active *activeTimer* | inactive *inactiveTimer* }

no ip flow-cache timeout { active | inactive }

- *activeTimer*—Value of activity timer in the range 0–60 minutes; default value is 30
- *inactiveTimer*—Value of inactivity timer in the range 10–600 seconds; default value is 15

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip flow-export

Description Defines J-Flow export values for the IP flow. The **no** version removes the export setting.

Syntax [no] ip flow-export { *hostName* | *ipAddress* } *udpPort* version 5 [peer-as | origin-as]

[no] ip flow-export destination { *hostName* | *ipAddress* } *udpPort*

[no] ip flow-export source *interfaceType interfaceSpecifier*

[no] ip flow-export version 5 [peer-as | origin-as]

- *hostName*—Name of the remote host for outgoing export datagrams
- *ipAddress*—IP address of the export destination host
- *udpPort*—UDP port number
- version 5—Specifies version 5 of the J-Flow statistical information
- peer-as—Exports peer-as information
- origin-as—Exports origin-as information
- destination—Specifies destination for outgoing export datagrams
- source—Specifies source interface for outgoing export datagrams
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip flow-sampling-mode packet-interval

Description Defines the sampling interval for an interface that is running J-Flow. Even though each flow is sampled, the flow sample is not necessarily cached because of system constraints. The **no** version returns the sampling interval to the default value.

NOTE: For interfaces on the ES2 10G LM with either the ES2-S1 GE-8 IOA or the ES2-S2 10GE PR IOA on E120 routers and E320 routers, J-Flow adjusts the maximum sampling interval to 8,388,608 (decimal equivalent of 0x800000) and changes the sampling interval to the closest integer that is a power of two and that is less than or equal to the configured value.

Syntax ip flow-sampling-mode packet-interval *intervalValue*

no ip flow-sampling-mode packet-interval

- *intervalValue*—Sampling interval, in the range 1–4000000000 packets; default value is 4000000000

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip flow statistics

Description Enables J-Flow statistics. The **no** version disables J-Flow statistics.

Syntax [no] ip flow statistics

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ftp source-address

Description Specifies an operational interface by IP address as the source interface in FTP packets sent via the router's FTP client. The **no** version restores the source address in the FTP packets to that on which the FTP connection is made.

Syntax ip ftp source-address *sourceAddress*

no ip ftp source-address [*sourceAddress*]

- *sourceAddress*—Source IP address

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ftp source-interface

Description Identifies an interface by type and location as the source interface in FTP packets sent via the router's FTP client. The **no** version restores the source address in the FTP packets to that on which the FTP connection is made.

Syntax ip ftp source-interface *interfaceType interfaceSpecifier*

no ip ftp source-interface [*interfaceType interfaceSpecifier*]

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip-hint

Description When enabled, the E-series router preallocates an IP address for the remote (B-RAS) user before calling authentication. The address is then passed as a hint in the authentication request to the RADIUS server. The **no** version disables the feature.

Syntax ip-hint { enable | disable }

no ip-hint

- enable—Specifies the feature
- disable—Disables the feature; this is the default setting

Mode Domain Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip http

Description Creates the HTTP local server. The **no** version deletes the HTTP local server.

Syntax [no] ip http

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

ip http access-class

Description Specifies the standard IP access list that identifies the subscribers who are authorized to connect to the HTTP local server. The **no** version removes the association between the access list and the HTTP local server.

Syntax ip http access-class *listName*

no ip http access-class

- *listName*—Name of the access list

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

ip http max-connection-time

Description Specifies the maximum time that the HTTP local server maintains an inactive connection. The **no** version restores the default time.

Syntax ip http max-connection-time *seconds*

no ip http max-connection-time

- *seconds*—Either 0 (unlimited) or the number of seconds in the range 3–7200; default value is 30 seconds

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

ip http port

Description Specifies the port on which the HTTP local server receives connection attempts. The **no** version restores the default port number.

Syntax ip http port *portNumber*

no ip http port

- *portNumber*—Number of the port, in the range 0–65535; the default is port 80

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

ip http redirectUrl

Description Specifies the URL to which a subscriber's initial Web browser session is redirected, enabling initial provisioning and service selection for the subscriber. The **no** version removes the redirection action.

Syntax ip http redirectUrl *url*

no ip http redirectUrl

- *url*—Name of the URL; 64 characters maximum

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

ip http same-host-limit

Description Specifies the maximum number of connections that can exist between one IP address and the HTTP local server. The **no** version restores the default number of allowed connections.

Syntax ip http same-host-limit *maxConnections*

no ip http same-host-limit

- *maxConnections*—Maximum number of connections allowed, in the range 0–1000; the default is 3

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

ip http server

Description Enables the HTTP local server. The **no** version disables the HTTP local server.

Syntax [no] ip http server

- server—Enables the HTTP local server

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

ip icmp update-source

Description Specifies a unique source address or interface for any ICMP messages that the E-series router generates. The **no** version removes the unique source specification.

Syntax ip icmp update-source [vrf *vrfName*] { *interfaceType interfaceSpecifier* | *ipAddress* }

no ip icmp update-source [vrf *vrfName*] [*interfaceType interfaceSpecifier* | *ipAddress*]

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *ipAddress*—IP address of an E-series interface over which you want to send ICMP messages

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp

Description Enables IGMP on an interface, and sets the IGMP version to IGMPv2. The **no** version disables IGMP on an interface.

Syntax [no] ip igmp

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp access-group

Description Restricts hosts on this subnet to joining multicast groups on the specified IP access list. The **no** version removes the association with the specified access list and allows hosts on the subnet to join any multicast group.

Syntax ip igmp access-group *accessListName*

no ip igmp access-group

- *accessListName*—Name of the access list; a string of up to 32 characters

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp access-source-group

Description Restricts hosts on this subnet to membership in those source-groups (also known as "channels") permitted by the specified IP access list. The **no** version removes any access list restriction.

Syntax ip igmp access-source-group *accessListName*

no ip igmp access-source-group

- *accessListName*—Name of the access list; a string of up to 32 characters

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp apply-oif-map

Description Applies the specified outgoing interface (OIF) map to the current interface. The **no** version removes the outgoing interface map association from the interface.

Syntax ip igmp apply-oif-map *mapName*

no ip igmp apply-oif-map

- *mapName*—Name of the OIF map

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp explicit-tracking

Description Enables explicit host tracking for IGMP interfaces. The **no** version disables explicit host tracking on the interface or with the **disable-if-igmp-v2-detected** keyword reverts to the default explicit host tracking.

Syntax [no] ip igmp explicit-tracking [disable-if-igmp-v2-detected]

- disable-if-igmp-v2-detected—Disables explicit host tracking if IGMP V2 hosts detected on IGMP V3 interfaces

Mode Interface Configuration, Profile Configuration

Release Information Command introduced in JUNOSe Release 8.2.0.

ip igmp group limit

Description Limits the number of IGMP groups that an interface can accept. The **no** version restores the default situation, in which there is no limit to the number of IGMP groups that the interface accepts.

Syntax ip igmp group limit *groupLimit*

no ip igmp group limit

- *groupLimit*—Maximum number of IGMP groups that an interface can accept in the range 0–64,000

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp immediate-leave

Description Removes an interface immediately when the router receives an leave group membership message from the host associated with this interface. The **no** version restores the default situation, in which the router issues query messages to multicast groups and removes an interface if the associated host does not return a group membership report within a certain length of time.

CAUTION: Issue this command only on IGMPv2 interfaces to which one IGMP client is connected. Do not issue this command to interfaces to which more than one IGMP client is connected.

Syntax [no] ip igmp immediate-leave

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp last-member-query-interval

Description Specifies in tenths of a second the maximum time the router waits for a response after sending a last member query. The router sends a last member query when it receives an IGMPv2 leave message or an IGMPv3 state change report. The **no** version restores the default value, 10 tenths of a second (1 second).

Syntax ip igmp last-member-query-interval *tenthsOfaSecond*

no ip igmp last-member-query-interval

- *tenthsOfaSecond*—Time interval between receipt of an IGMP leave message and sending out of a query in the range 1–254 tenths of a second. Using a lower value allows members to leave groups more quickly.

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp oif-map

Description Creates an outgoing interface (OIF) map. The **no** version removes an outgoing interface map attribute or the entire outgoing interface map.

Syntax [no] ip igmp oif-map *mapName* { *interfaceType interfaceSpecifier* | self } [*groupPrefix* [*sourcePrefix*]]

- *mapName*—Name of the OIF map
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- self—Specifies that the multicast outgoing interface is the same as IGMP join interface
- *groupPrefix*—Group prefix in the form *ipAddress/maskLength*
- *sourcePrefix*—Source prefix in the form *ipAddress/maskLength*

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp promiscuous

Description Enables the specified interface to accept IGMP reports from hosts on any subnet. The **no** version specifies that an IGMP interface should use the Router Configuration mode setting (see the **igmp promiscuous** command) to determine from which subnets it can accept IGMP reports.

Syntax ip igmp promiscuous { on | off }

no ip igmp promiscuous

- on—Enables the interface to accept IGMP reports from hosts on any subnet
- off—Allows the interface to accept IGMP reports only from hosts on subnets associated with this interface

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp-proxy

Description Enables IGMP proxy on an interface and specifies the version. Version 2 is enabled by default. The **no** version disables IGMP proxy for an interface.

Syntax [no] ip igmp-proxy [version { 2 | 3 }]

- 2—Specifies IGMP proxy version 2
- 3—Specifies IGMP proxy version 3

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp-proxy unsolicited-report-interval

Description Specifies how often the upstream interface should transmit unsolicited reports. This command has no effect on interfaces other than the upstream value. The **no** version transmits unsolicited reports using the default value, 400 tenths of a second.

NOTE: Issue this command only on the upstream interface. Otherwise, this command will have no effect.

Syntax ip igmp-proxy unsolicited-report-interval *tenths-of-a-second*

no ip igmp-proxy unsolicited-report-interval

- *tenths-of-a-seconds*—Time interval at which the interface transmits unsolicited reports

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp-proxy V1-router-present-time

Description Specifies how long the router assumes that there is an IGMPv1 querier router on the subnet after the router receives an IGMP V1 query on this interface. The **no** version restores the default value, 10 seconds.

Syntax ip igmp-proxy V1-router-present-time *seconds*

no ip igmp-proxy V1-router-present-time

- *seconds*—Time for which the router assumes that there is an IGMPv1 querier router on the subnet after the router receives an IGMP V1 query on this interface

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp querier

Description Specifies that the interface will act as a querier when you configure IGMPv1 on an interface; this is the default behavior. The **no** version specifies that this interface will not issue query packets.

NOTE: This command is valid only for interfaces on configured with IGMPv1.

Syntax [no] ip igmp querier

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp querier-timeout

Description Sets the time that the interface waits before declaring itself as the querier. The **no** version restores the default value, twice the query interval.

Syntax ip igmp querier-timeout *seconds*

no ip igmp querier-timeout

- *seconds*—Time interval between the last query from the previous router and the first query from this interface

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp query-interval

Description Sets how often the router sends IGMP host-query packets from this interface. The **no** version restores the default value, 125 seconds.

Syntax ip igmp query-interval *seconds*

no ip igmp query-interval

- *seconds*—Polling interval in the range 0–65535 seconds

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp query-max-response-time

Description Specifies the period in tenths of a second during which the host is expected to respond to an IGMP query. IGMP version 2 includes this value in IGMP query messages sent out on the interface. You cannot set this value on interfaces running IGMP version 1. The **no** version restores the default value, 10 tenths of a second (1 second).

Syntax ip igmp query-max-response-time *tenthsOfaSecond*

no ip igmp query-max-response-time

- *tenthsOfaSecond*—Time interval between receipt of an IGMP query and the response; in the range 1–254 tenths of a second.

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp robustness

Description Specifies the number of times that the router sends IGMP group-specific queries before declaring a group to no longer have any members on an interface. The **no** version restores the default value, 3.

Syntax ip igmp robustness *numberOfMessages*

no ip igmp robustness

- *numberOfMessages*—Number of times that the router sends IGMP group-specific queries in the range 1–4

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp ssm-map enable

Description Enables SSM mapping on the router. SSM mapping statically assigns sources to IGMPv1 and IGMPv2 groups. You must use SSM mapping for IGMPv1 and IGMPv2 hosts to interoperate with PIM SSM. SSM mapping allows the router to use a statically configured list to translate (*,G) memberships to (S,G) memberships. The **no** version disables the SSM map.

Syntax [no] ip igmp ssm-map enable

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp ssm-map static

Description Specifies an access list and source address for use in SSM mapping. SSM mapping statically assigns sources to IGMPv1 and IGMPv2 groups. You must use SSM mapping for IGMPv1 and IGMPv2 hosts to interoperate with PIM SSM. SSM mapping allows the router to use a statically configured list to translate (*,G) memberships to (S,G) memberships. The **no** version removes the SSM map association.

Syntax [no] ip igmp ssm-map static *accessListName sourceAddress*

- *accessListName*—Name of the access control list
- *sourceAddress*—Address of the source

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp static-exclude

Description Specifies that an interface not handle multicast traffic for one or more (S,G) combinations. The **no** version removes the (S,G) exclusion from the interface.

Syntax [no] ip igmp static-exclude *sourceAddress groupAddress*

- *sourceAddress*—Address of the source
- *groupAddress*—Address of the group

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp static-group

Description Assigns an interface to handle all multicast traffic for a group. The interface sets no timers for this group. The **no** version removes the group from the interface.

Syntax [no] ip igmp static-group *groupAddress*

- *groupAddress*—Address of the group

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp static-include

Description Assigns an interface to handle multicast traffic for one or more (S,G) combinations. The **no** version removes the (S,G) association from the interface.

Syntax [no] ip igmp static-include *sourceAddress groupAddress*

- *sourceAddress*—Address of the source
- *groupAddress*—Address of the group

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip igmp version

Description Sets the IGMP version for the interface. The **no** version restores the default value, IGMPv2.

Syntax ip igmp version { 3 | 2 | 1 | passive }

no ip igmp version

- 3—Specifies IGMP version 3
- 2—Specifies IGMP version 2
- 1—Specifies IGMP version 1
- passive—Configures a mapped OIF as a passive interface with only multicast-data-forwarding capability

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ignore-df-bit

Description Specifies that the router ignores the don't-fragment bit if present in the IP header of packets crossing the configured interface; the router then fragments packets even if the bit is present. The **no** version restores the default behavior, which is to consider the DF bit before fragmenting.

Syntax [no] ip ignore-df-bit

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip inactivity-timer

Description Configures an inactivity timer. Dynamically created subscriber interfaces that are inactive for a period exceeding the specified timer value are deleted. The **no** version disables the timer.

Syntax [no] ip inactivity-timer *inactiveTime*

- *inactiveTime*—Length of time in the range 0–63335 minutes; a value of 0 specifies that dynamically created subscriber interfaces are not deleted

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip initial-sequence-preference

Description Configures the warm restart replay preference for an IP interface after a high availability switchover. The **no** version restores the default value.

Syntax ip initial-sequence-preference *preference*

no ip initial-sequence-preference

- *preference*—Preference value, 0 or 1; 1 indicates highest preference; default value is 0

Mode Subinterface Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

ip inspect alert-off

Description Disables the inspect alert control. The **no** version returns the alert control to its default value, enabled.

Syntax [no] ip inspect alert-off

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip inspect audit-trail

Description Enables the inspect audit trail control. The **no** version disables the audit trail.

Syntax [no] ip inspect audit-trail

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip inspect dns-timeout

Description Defines the DNS timeout value for DNS flows. The **no** version restores the default value, 5 seconds.

Syntax ip inspect dns-timeout *timerValue*

no ip inspect dns-timeout

- *timerValue*—Number of seconds in the range 1–65535; default value is 5

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip inspect icmp idle-time

Description Defines the idle-time value for ICMP flows. The **no** version restores the default value, 10 seconds.

Syntax ip inspect icmp idle-time *timerValue*

no ip inspect icmp idle-time

- *timerValue*—Number of seconds in the range 1–65535; default value is 10

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip inspect max-incomplete

Description Defines the number of half-open (incomplete) sessions that will cause the router to start deleting half-complete sessions (the high value) and stop deleting half-complete sessions (the low value). The **no** version restores the default value.

Syntax ip inspect max-incomplete { high | low } *limitValue*

no ip inspect max-incomplete { high | low }

- *limitValue*—Maximum number of incomplete connections in the following ranges and defaults:
  - high—Range is 1–65535; default value is 500
  - low—Range is 1–65535; default value is 400

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip inspect name

Description Creates and defines an inspection list. The **no** version deletes the inspection list.

Syntax

ip inspect name *inspectName*
{ dns | ftp | http | https | icmp | pop-2 | pop-3 | rtsp | smtp | ssh | tcp | telnet | udp }
[alert { on | off }] [audit-trail { on | off }] [timeout *timeoutValue*]

no ip inspect name *inspectName*
[dns | ftp | http | https | icmp | pop-2 | pop-3 | rtsp | smtp | ssh | tcp | telnet | udp]
[alert [on | off]] [audit-trail [on | off]] [timeout [*timeoutValue*]]

- *inspectName*—Name of the inspection list
- dns—Configures the Domain Name Server application in the inspection list
- ftp—Configures File Transfer Protocol in the inspection list
- http—Configures Hypertext Transfer Protocol in the inspection list
- https—Configures Hypertext Transfer Protocol-Secure in the inspection list
- icmp—Configures Internet Control Message Protocol in the inspection list
- pop-2—Configures Post Office Protocol-2 in the inspection list
- pop-3—Configures Post Office Protocol-3 in the inspection list
- rtsp—Configures Real-Time Streaming Protocol and realAudio in the inspection list
- smtp—Configures Simple Mail Transfer Protocol in the inspection list
- ssh—Configures the Secure Shell application in the inspection list
- tcp—Configures Transfer Control Protocol in the inspection list
- telnet—Configures the Telnet application in the inspection list
- udp—Configures User Datagram Protocol in the inspection list
- alert—Overrides the alert log setting on the virtual router
- audit-trail—Overrides the audit trail log setting on the virtual router
- *timeoutValue*—Specifies a timeout value that overrides the idle timeout for the specified application; range is 5–43200; default value is 3600

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip inspect one-minute

Description Defines the connection establishment rate at which the router starts deleting half-complete sessions (the high value) and stops deleting half-complete sessions (the low value). The **no** version restores the default value.

Syntax ip inspect one-minute { high | low } *limitValue*

no ip inspect one-minute { high | low }

- *limitValue*—Maximum number of incomplete connections in the following ranges and defaults:
  - high—Range is 1–65535; default value is 500
  - low—Range is 1–65535; default value is 400

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip inspect tcp

Description Defines the synwait timer, finwait timer, or idle-time value for TCP flows. The **no** version restores the default value.

Syntax ip inspect tcp { finwait-time | idle-time | synwait-time } *timerValue*

no ip inspect tcp { finwait-time | idle-time | synwait-time }

- *timerValue*—Number of seconds in the following ranges and defaults for each timer:
  - finwait-time—Range is 1–65535; default value is 5
  - idle-time—Range is 1–65535; default value is 3000
  - synwait-time—Range is 1–65535; default value is 30

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip inspect tcp max-incomplete host

Description Defines the maximum number of half-complete TCP sessions that the router allows to the same destination before it begins removing sessions. This command also specifies an amount of time that the router disallows connection to affected hosts after removing sessions to those hosts. The **no** version restores the default value.

Syntax ip inspect tcp max-incomplete host *number* [block-time *timerValue*]

no ip inspect max-incomplete host

- *number*—Number of half-complete TCP sessions that the router allows to the same destination, in the range 1–5000; default value is 250 sessions
- *timerValue*—Amount of time, in the range 0–36000 minutes, that the router disallows connection to affected hosts after removing sessions to those hosts; default value is 0 minutes

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip inspect udp idle-time

Description Defines the idle-time value for UDP flows. The **no** version restores the default value, 30 seconds.

Syntax ip inspect udp idle-time *timerValue*

no ip inspect udp idle-time

- *timerValue*—Number of seconds in the range 1–65535; default value is 30

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip inspection

Description Associates an inspection list with the inbound or outbound side of the IP interface. The router applies the rules of the associated inspection list to all of the packets it receives on this interface. The **no** version removes the inspection list association with this interface.

Syntax [no] ip inspection *inspectName* { in | out }

- *inspectName*—Text string in the range 1–32 characters that specifies the name of the inspection list

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip interface

Description This command has only a **no** version. See the **no ip interface** command for a complete description and syntax.

ip irdp

Description Enables ICMP Router Discovery Protocol processing on an interface. The **no** version disables IRDP routing.

Syntax [no] ip irdp

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip local alias

Description Specifies an alias for a local address pool. The **no** version deletes the alias name.

Syntax ip local alias *aliasName* pool-name *poolName*

[no] ip local alias *aliasName*

- *aliasName*—Text string in the range 1–16 characters that defines an alias name for the local address pool
- *poolName*—Text string in the range 1–16 characters that is the name of the local address pool

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip local pool

Description Specifies the pool name, the starting address, the ending address, group name, the utilization threshold, and the SNMP trap flag. The **no** version deletes a local pool.

Syntax [no] ip local pool *name* [*startIpAddress* [*endIpAddress*]]
[warning *highUtilization abatedUtilization*] [snmpTrap]

- *name*—Text string in the range 1–16 characters that defines the name of the local address *pool*
- *startIpAddress*—Starting IP address in the local address pool
- *endIpAddress*—Ending IP address in the local address pool
- warning—Specifies one of the following utilization warnings:
  - *highUtilization*—High utilization value; a number in the range 1–100; default value is 85
  - *abatedUtilization*—Abated utilization value; a number in the range 1–100; default value is 75
- snmpTrap—Enables SNMP pool utilization traps

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip local pool snmpTrap

Description Enables SNMP pool utilization traps. The **no** version disables SNMP pool utilization traps.

Syntax [no] ip local pool *name* snmpTrap

- *name*—Text string in the range 1–16 characters that defines the name of the local address *pool*

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip local pool warning

Description Identifies the warning threshold values. The **no** version resets the thresholds to their default values.

Syntax ip local pool *name* warning *highUtilization abatedUtilization* [snmpTrap]

no ip local pool *name* warning [*highUtilization abatedUtilization*]

- *name*—Text string in the range 1–16 characters that defines the name of the local address *pool*
- *highUtilization*—High utilization value; a number in the range 1–100; default value is 85
- *abatedUtilization*—Abated utilization value; a number in the range 1–100; default value is 75
- snmpTrap—Enables snmp pool utilization traps

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip local shared-pool

Description Configures a shared local address pool that shares addresses from the specified DHCP local server address pool in the same virtual router. The **no** version deletes the shared local address pool.

Syntax ip local shared-pool *localPoolName dhcpPoolName*

no ip local shared-pool *localPoolName*

- *localPoolName*—Text string in the range 1–16 characters that defines the name of the shared local address pool that obtains addresses from a DHCP local server address pool.
- *dhcpPoolName*—Text string in the range 1–64 characters that defines the name of the DHCP local address pool that provides addresses to the shared local address pool.

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip mac-validate

Description Enables MAC address validation on a per interface basis. When MAC address validation is enabled, the router checks the entry in the MAC validation table that corresponds to the IP source address of an incoming packet. The MAC source address of the packet must match the MAC source address of the table entry for the router to forward the packet. The **no** version disables the feature.

Syntax ip mac-validate [strict | loose]

no ip mac-validate

- strict—Prevents transmission of IP packets that do not reside in the validation table
- loose—Allows IP packets to pass through even though the packets do not have entries in the validation table; only packets that have matching IP–MAC pair entries in the table are validated

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip mask-reply

Description Enables ICMP netmask reply. The **no** version disables the feature.

Syntax [no] ip mask-reply

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip match-policy-list

Description Creates an IP policy list and launches the policy list configuration mode. The **no** version deletes the policy list.

Syntax [no] ip match-policy-list *policyList* { permit | deny }

- *policyList*—Name of the policy list
- permit—Defines the policy list as a permit
- deny—Defines the policy list as a deny

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip mirror

Description Configures the specified interface to mirror all IP ingress and egress traffic, and directs the mirrored traffic to an analyzer interface. The **no** version disables mirroring on the interface.

NOTE: This command is deprecated and might be removed completely in a future release. The function provided by this command has been replaced by the updated packet mirroring feature and the **ip policy** command used with the **secure-input** and **secure-output** keywords.

Syntax

ip mirror *mirrorInterfaceType mirrorInterfaceSpecifier* [*analyzerInterfaceType analyzerInterfaceSpecifier* [next-hop *nextHop*]]

no ip mirror *mirrorInterfaceType mirrorInterfaceSpecifier*

- *mirrorInterfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *mirrorInterfaceSpecifier*—Particular interface that performs the interface mirroring function; see *Interface Types and Specifiers* in *About This Guide*
- *analyzerInterfaceType*—Interface type
- *analyzerInterfaceSpecifier*—Particular interface used as the analyzer interface; if omitted, the virtual router's default analyzer interface is used
- *nextHop*—Next-hop IP address to the remote analyzer host; required if the analyzer interface is a shared medium, such as Ethernet

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring CLI-Based Mirroring

ip mobile home-agent

Description Configures the Mobile IP home agent on a virtual router. Issuing this command does not affect existing parameters such as lifetime, replay value, or care-of-access ACL for any mobile node's existing binding. The new parameters take effect only upon each re-registration or new registration. For example, configuring a shorter lifetime does not cause an existing binding to be removed prematurely, but the new lifetime value is used only upon re-registration by a mobile node so that both the mobile node and the home agent are informed of the newly negotiated value. The **no** version disables the home agent service on the virtual router.

NOTE: The values for lifetime, replay, and care-of access configured per mobile host by using the **ip mobile host** command override the values configured by using the **ip mobile home-agent** command.

Syntax ip mobile home-agent [care-of-access *acl*] [lifetime *lifetimeSeconds*] [replay *replaySeconds*] [reverse-tunnel-off]

no ip mobile home-agent

- *acl*—Name of the access control list applied to the care-of-access, which restricts access for foreign agents or networks. You can override this care-of-access ACL with other ACLs for specific host mobile nodes. By default, the router does not apply a care-of-access ACL
- *lifetimeSeconds*—Maximum number of seconds, in the range 5–65535, during which registration requests are established; default value is 36,000 seconds. The maximum lifetime configured for specific mobile nodes can override this lifetime value
- *replaySeconds*—Number of seconds, in the range 1–255, by which a registration request can exceed the home agent configured time value; default value is 7 seconds
- reverse-tunnel-off—Disables reverse tunneling support by the home agent, which denies T bit registration requests. By default, reverse tunneling is enabled on the router. When you modify support for reverse tunnels, the modification takes effect only for subsequently accepted registration requests

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 9.0.0.

ip mobile host

Description Configures the mobile node on a virtual router with an optional host network access identifier (NAI) address or the home address (IP address of the home agent). You can specify either the **nai** keyword or a non-zero home address (IP address of the mobile node). If the AAA server does not provide all configuration information, a local lookup retrieves the configuration information by either matching the NAI registration request or the home address registration request. The **no** version deletes the configuration of the mobile node on the virtual router.

Syntax ip mobile host { nai { *user@realm* | *@realm* | @ } | *ipAddress* } [aaa] [care-of-access *acl*] [lifetime *lifetimeSeconds*]

no ip mobile host { nai { *user@realm* | *@realm* | @ } | *ipAddress* }

- *user@realm*—Name of the user for the mobile node specification when the **nai** keyword is specified, in the format *user@realm*, where *realm* is the domain name
- *@realm*—Name of the user for the mobile node specification when the **nai** keyword is specified, in the format *@realm*, where *realm* is the domain name
- @—Name of the user for the mobile node specification when the **nai** keyword is specified, in the format @
- *ipAddress*—IP address of the home agent
- aaa—Causes the router to use the AAA server to validate registration requests and to obtain configuration and security association information
- *acl*—Name of the access control list applied to the care-of-access, which restricts access for foreign agents or networks. You can override this care-of-access ACL with other ACLs for specific host mobile nodes. By default, the router does not apply a care-of-access ACL
- *lifetimeSeconds*—Maximum number of seconds during which the registration requests are established; default value is 36,000 seconds. The maximum lifetime configured for specific mobile nodes can override this lifetime value

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 9.0.0.

ip mobile profile

Description Configures or associates a preconfigured interface profile with the home agent in a virtual router. You must configure a mobile profile for every virtual router in which the home agent exists. The profile parameters determine the interface characteristics for Mobile IP signaling. The **no** version removes the profile configuration from the virtual router.

Syntax [no] ip mobile profile *profileName*

- *profileName*—Name of the profile associated with the home agent for Mobile IP signaling in a virtual router

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 9.0.0.

ip mobile secure foreign-agent

Description Configures the security associations for a foreign agent by specifying a security parameter index (SPI) value and an authentication key. You can specify the interval within which a registration request can exceed the home agent configured time value by specifying the **replay timestamp within** keyword. The **no** version deletes the security associations for the specified foreign agent on the virtual router.

Syntax ip mobile secure foreign-agent *ipAddress* spi *spi* key { hex *hexKeyVal* | ascii *asciiKeyVal* } [replay timestamp within *seconds*] [algorithm { hmac-md5 | keyed-md5 }]

no ip mobile secure foreign-agent *ipAddress* spi *spi* key { hex *hexKeyVal* | ascii *asciiKeyVal* }

- *ipAddress*—IP address of the foreign agent
- *spi*—Security parameter index (SPI) value, a specific 4-octet hexadecimal number, in the range 0x100–0xFFFFFFFF, that authenticates inbound requests and permits authentication for outbound registration requests
- *hexKeyVal*—128-bit hexadecimal number, in the range 0x0–0xFFFFFFFE, that specifies the authentication key for a specific security association
- *asciiKeyVal*—128-bit alphanumeric value, up to a maximum of 16 characters, that specifies the authentication key for a specific security association
- *seconds*—Number of seconds, in the range 1–255, by which a registration request can exceed the home agent configured time value; default value is 7 seconds
- hmac-md5—Specifies the authentication algorithm for Mobile IP messages, default value is hmac-md5
- keyed-md5—Specifies the authentication algorithm for Mobile IP messages

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 9.0.0.

ip mobile secure host

Description Configures the security associations for a mobile node. You can configure the security associations for a mobile node only after configuring a corresponding host configuration for the mobile node, and only if you have not configured the AAA service on the virtual router. You can specify the interval within which a registration request can exceed the home agent configured time value by specifying the **replay timestamp within** keyword. The **no** version deletes the security associations for the specified host on the virtual router.

NOTE: If you delete a mobile node host by using the **no ip mobile host** command, all security associations that you configured for this host are deleted.

Syntax

ip mobile secure host { nai { *user@realm* | *@realm* | @ } | *ipAddress* } spi *spi* key { hex *hexKeyVal* | ascii *asciiKeyVal* } [replay timestamp within *seconds*] [algorithm { hmac-md5 | keyed-md5 }]

no ip mobile secure host { nai { *user@realm* | *@realm* } | *ipAddress* } spi *spi* key { hex *hexKeyVal* | ascii *asciiKeyVal* }

- *user@realm*—Name of the user for the mobile node specification when the **nai** keyword is specified, in the format *user@realm*, where *realm* is the domain name
- *@realm*—Name of the user for the mobile node specification when the **nai** keyword is specified, in the format *@realm*, where *realm* is the domain name
- @—Name of the user for the mobile node specification when the **nai** keyword is specified, in the format @
- *ipAddress*—IP address of the foreign agent
- *spi*—Security parameter index (SPI) value, a specific 4-octet hexadecimal number, in the range 0x100–0xFFFFFFFF, that authenticates inbound requests and permits authentication for outbound registration requests
- *hexKeyVal*—128-bit hexadecimal number, in the range 0x0–0xFFFFFFFE, that specifies the authentication key for a specific security association
- *asciiKeyVal*—128-bit alphanumeric value, up to a maximum of 16 characters, that specifies the authentication key for a specific security association
- *seconds*—Number of seconds, in the range 1–255, by which a registration request can exceed the home agent configured time value; default value is 7 seconds
- hmac-md5—Specifies the authentication algorithm for Mobile IP messages, default value is hmac-md5
- keyed-md5—Specifies the authentication algorithm for Mobile IP messages

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 9.0.0.

ip mpls forwarding-mode label-switched

Description Generates a label for each different FEC that a BGP route points to in a BGP/MPLS VPN. The **no** version restores the default, generating a single label for all BGP routes sent from a given VRF.

NOTE: For some types of routes, the router always generates a per-VRF label, regardless of the status of this command. See *JUNOSe BGP and MPLS Configuration Guide, Chapter 3, Configuring BGP-MPLS Applications*, for details.

Syntax [no] ip mpls forwarding-mode label-switched

Mode VRF Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip mtu

Description Sets the maximum transmission unit size of IP packets sent on an interface. The **no** version restores the default value.

Syntax [no] ip mtu [*mtuSize*]

- *mtuSize*—Maximum number of packet transmissions permitted on an interface; in the range 160–10240; default value is 0, which means that the router takes the value from a lower protocol layer

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip multicast admission-bandwidth-limit

Description Specifies multicast admission bandwidth (in kilobits per second) for a given interface. The **no** version removes the admission bandwidth limit.

Syntax [no] ip multicast admission-bandwidth-limit *limitValue*

- *limitValue*—Maximum admission bandwidth (in kilobits per second) permitted on an interface; default value is 0, which disables the limit

Mode Interface Configuration, Profile Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

ip multicast ioa-packet-replication

Description Enables IPv4 hardware multicast packet replication on port 8 of a high-density Ethernet I/O module or IOA. The **no** version disables hardware multicast packet replication.

Syntax ip multicast ioa-packet-replication *interfaceType interfaceSpecifier*

no ip multicast ioa-packet-replication

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

ip multicast-routing

Description Enables IP multicast routing on the router. The **no** version disables IP multicast routing on the router.

Syntax [no] ip multicast-routing

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip multicast-routing bandwidth-map

Description Enables the QoS adjust function on the router. The **no** version disables the QoS adjust function on the router.

Syntax ip multicast-routing bandwidth-map *routeMapName*

no ip multicast-routing bandwidth-map

- *routeMapName*—Name of the route map you want to use for the bandwidth map

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

ip multicast-routing disable-rpf-check

Description Disables RPF checks for the (S,G) pairs in the specified access list. The **no** version restores the default situation, in which the router performs RPF checks for all (S,G) pairs.

Syntax ip multicast-routing disable-rpf-check *ipAccessList*

no ip multicast-routing disable-rpf-check

- *ipAccessList*—Name of the IP access list that specifies the (S,G) pairs

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip multicast-routing permanent-mroute

Description Specifies that newly created mroutes that match the specified access list do not get timed out. The **no** version of this command prevents any new mroutes from becoming permanent. However, it does not remove any existing permanent mroutes. To remove existing permanent mroutes, use the **clear ip mroute** command.

Syntax ip multicast-routing permanent-mroute *accessListName*

no ip multicast-routing permanent-mroute

- *accessListName*—Name of the IP access list that contains the mroutes

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip multipath round-robin

Description Specifies round-robin as the mode for ECMP load sharing on an interface. The **no** version restores the default value, hashed.

Syntax [no] ip multipath round-robin

Mode Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip name-server

Description Specifies a DNS name server that the router can query for hostname–to–IP address resolution. The **no** version deletes the name server.

Syntax [no] ip name-server *serverIpAddress* [*serverIpAddress*]*

- *serverIpAddress*—IP or IPv6 address of a DNS name server
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip nat

Description Marks interfaces that participate in NAT translation as residing on the inside or the outside network. The **no** version unmarks the interface so that it does not participate in NAT translation.

Syntax [no] ip nat { inside | outside }

- inside—*S*pecifies that the interface resides on the inside (private) portion of the network. The inside portion of the network uses nonroutable IP addresses.
- outside—Specifies that the interface resides on the outside (public) portion of the network. The outside portion of the network (for example, the Internet) uses routable legitimate addresses.

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip nat inside source list

Description Creates dynamic translation rules that are applied to a source address when routing a packet from the inside network to the outside network, and for translating the destination address when a packet returns from the outside network to the inside network. The **no** version removes the dynamic translation rule.

NOTE: This command does not remove any dynamic translations from the translation table.

Syntax ip nat inside source list *accessListName* pool *poolName* [overload]

no ip nat inside source list *accessListName*

- *accessListName*—Name of the access list that you want to use for this dynamic translation
- *poolName*—Name of the NAT IP address pool that contains addresses you want to use when translating matched access list addresses
- overload—Specifies that the translation process create extended translation table entries (IP address, protocol, and port values)

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip nat inside source static

Description Creates static translations for a source address when routing a packet from the inside network to the outside network, and "untranslates" the destination address when a packet returns from the outside network to the inside network. The **no** version removes the static translation and purges the associated translations from the translation table.

Syntax [no] ip nat inside source static *localIpAddress globalIpAddress*

[no] ip nat inside source static { tcp | udp } *localIpAddress localPort globalIpAddress globalPort*

- tcp—Indicates a TCP port
- udp—Indicates a UDP port
- *localIpAddress*—Inside local address
- *localPort*—Inside local TCP or UDP port
- *globalIpAddress*—Inside global address
- *globalPort* —Inside global TCP or UDP port

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip nat outside source list

Description Creates dynamic translation rules that are applied to a source address when routing a packet from the outside network to the inside network, and used for translating the destination address when a packet returns to the outside network from the inside network. The **no** version removes the dynamic translation rule.

NOTE: This command does not remove any dynamic translations from the translation table.

Syntax ip nat outside source list *accessListName* pool *poolName*

no ip nat outside source list *accessListName*

- *accessListName*—Name of the access list that you want to use for this dynamic translation
- *poolName*—Name of the NAT IP address pool that contains addresses you want to use when translating matched access list addresses

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip nat outside source static

Description Translates the source address when routing a packet from the outside network to the inside network, and "untranslates" the destination address when a packet travels from the inside network to the outside network. The **no** version removes the static translation and purges the associated translations from the translation table.

Syntax [no] ip nat outside source static *globalIpAddress localIpAddress*

[no] ip nat outside source static { tcp | udp } *globalIpAddress globalPort localIpAddress localPort*

- tcp—Indicates a TCP port
- udp—Indicates a UDP port
- *globalIpAddress*—Inside global address
- *globalPort*—Inside global TCP or UDP port
- *localIpAddress*—Inside local address
- *localPort*—Inside local TCP or UDP port

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip nat pool

Description Creates an address pool from which the NAT router obtains an address when performing a dynamic translation. You can create address pools with either a single range or multiple, nonoverlapping ranges. The **no** version removes the NAT pool.

NOTE: The router will not allow you to remove a pool that has allocations outstanding. Before removing this type of pool, you must remove the dynamic translation, clear any outstanding translations, and then remove the pool.

CAUTION: Specifying a range in "single line" mode from the CLI replaces all other ranges. You cannot specify a range in this mode if any existing ranges are in use. To add additional ranges, issue this command to access IP NAT Pool Configuration mode.

Syntax ip nat pool *name* [*startIpAddress endIpAddress*]
{ netmask *networkMask* | prefix-length *length* }

no ip nat pool *name*

- *name*—Name of the address pool; 32 alphanumeric characters maximum
- *startIpAddress*—First IP address (inclusive) in the NAT pool range you are creating; omitting this value in the command (along with *endIpAddress*) launches the IP NAT Pool Configuration mode, in which you can enter multiple, discontinuous ranges
- *endIpAddress*—Last IP address (inclusive) in the NAT pool range you are creating; omitting this value in the command (along with *startIpAddress*) accesses IP NAT Pool Configuration mode, in which you can enter multiple, discontinuous ranges
- *ipAddressMask*—Subnet mask for any NAT pool ranges you specify
- *length*—Length of the network prefix; the number of bits masking the base address that results in the address that you want to match

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip nat translation

Description Changes or disables translation timeouts, per virtual router, for existing and newly created translations in the translation table. All timeouts for this command support a range of 1–2147483 seconds (about 25 days). The **no** version enables the timer using its default value.

NOTE: GRE translations are used as optimizations to discard GRE traffic. You can use the **gre-timeout** keyword to control GRE aging timeout, even though we do not support NAPT for GRE. The GRE aging timer has no effect on any simple translations GRE might use.

Syntax ip nat translation { timeout | udp-timeout | dns-timeout | tcp-timeout | finrst-timeout | icmp-timeout | gre-timeout } *seconds*

no ip nat translation { timeout | udp-timeout | dns-timeout | tcp-timeout | finrst-timeout | icmp-timeout | gre-timeout}

- timeout—Sets aging time for dynamic translations (except for overloaded translations); default value is 86400 seconds (24 hours)
- udp-timeout—Sets aging time for UDP protocol translations; default value is 300 seconds (5 minutes)
- dns-timeout—Sets aging time for DNS protocol translations (port 53 on TCP or UDP); default value is 60 seconds
- tcp-timeout—Sets aging time for TCP protocol translations; default value is 86400 seconds (24 hours)
- first-timeout—Sets aging time for TCP connections terminated with RST or FIN flags; default value is 60 seconds
- icmp-timeout—Sets aging time for ICMP protocol translations; default value is 300 seconds (5 minutes)
- gre-timeout—Sets aging time for GRE protocol translations; default value is 300 seconds (5 minutes)
- *seconds*—Number of seconds before the router removes an unused NAT table entry

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
gre-timeout keyword added in JUNOSe Release 7.3.0.

ip nat translation max-entries

Description Specifies the maximum number of translation entries per virtual router (that is, address bindings, not translation rules) that the translation table can contain in global configuration mode. The **no** version removes the configured limit.

Syntax ip nat translation max-entries *maximumEntryNumber*

no ip nat translation max-entries

- *maximumEntryNumber*—Maximum number of translation entries in the current virtual router; default value is no limit

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip nfs

Description Specifies the E-series interface that the current virtual router uses to exchange NFS communications with an NFS server. The **no** version prevents this interface from sending or receiving NFS communications for the current virtual router.

Syntax ip nfs { source-address *ipAddress* | source-interface *interfaceType interfaceSpecifier* }

no ip nfs { source-address | source-interface }

- *ipAddress*—IP address of an E-series interface that sends and receives NFS communications
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip nfs host

Description Configures a remote host as an NFS server for the current virtual router. The **no** version disassociates the NFS server from the virtual router.

Syntax ip nfs host *hostName* [user *userID* [group *groupID*]]

no ip nfs host *hostName*

- *hostName*—Name of the remote host
- *userID*—User identity in the range 0–4294967295 that a user must enter to connect to the remote host; default value is 2001
- *groupID*—Group identity in the range 0–4294967295 that the user must enter to connect to the remote host; default value is 100

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ospf authentication-key

Description Assigns a password used by neighboring routers that are using OSPF simple password authentication. The **no** version deletes the password.

Syntax ip ospf authentication-key *authKey*

no ip ospf authentication-key

- *authKey*—Password; string of up to 8 characters

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ospf authentication message-digest

Description Specifies that the authentication mode for the interface is MD5. The **no** version sets authentication for the interface to none, but leaves any configured MD5 key intact.

Syntax [no] ip ospf authentication message-digest

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ospf authentication-none

Description Specifies that no authentication is to be used for the interface. The **no** version has no effect.

Syntax ip ospf authentication-none

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ospf bfd-liveness-detection

Description Enables BFD (bidirectional forwarding detection) on an interface running OSPFv2 and defines BFD values to be negotiated between OSPFv2 neighbors for detection of IP data path failures. The **no** version disables BFD on the OSPFv2 interface.

Syntax ip ospf bfd-liveness-detection [minimum-interval *minInterval* |
[minimum-receive-interval *minRecInterval*]
[minimum-transmit-interval *minTransInterval*]] [multiplier *multValue*]

no ip ospf bfd-liveness-detection

- *minInterval*—Minimum proposed transmit interval and required receive interval for BFD control packets; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minRecInterval*—Minimum interval at which the local peer must receive BFD control packets sent by the remote peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minTransInterval*—Minimum proposed interval between BFD control packets sent by the local peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *multValue*—Detection multiplier value that the remote peer router multiplies by the local peer's negotiated transmit interval to determine the remote peer's BFD liveness detection interval; equal to the number of BFD packets that can be missed before the BFD session is declared down; number in the range 1–255; default value is 3

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

ip ospf cost

Description Specifies a cost metric for an interface. Used in the calculation of the SPF routing table. The **no** version resets the path cost to the default.

Syntax ip ospf cost *intfCost*

no ip ospf cost

- *intfCost*—Link-state metric cost; number in the range 0–65535; default value is 10

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ospf dead-interval

Description Sets the time period during which the router's neighbors do not see hello packets before they declare the router to be down. The **no** version resets the dead interval to its default.

Syntax ip ospf dead-interval *deadInterval*

no ip ospf dead-interval

- *deadInterval*—Number in the range 0–2147483647 seconds; default value is 40 seconds

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ospf hello-interval

Description Specifies the interval between hello packets that the router sends on the interface. The **no** version resets the hello interval to its default.

Syntax ip ospf hello-interval *helloInterval*

no ip ospf hello-interval

- *helloInterval*—Number in the range 1–65535 seconds; default value is 10 seconds

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ospf message-digest-key md5

Description Enables OSPF MD5 authentication and configures the MD5 key. The **no** version deletes an MD5 key.

NOTE: If all the MD5 keys have been deleted, the authentication type is still MD5, but you must configure MD5 keys.

NOTE: To disable MD5 authentication for the interface, use the **ip ospf authentication-none** command.

NOTE: To display the password only in encrypted text, use the **service password-encryption** command.

Syntax ip ospf message-digest-key *keyID* md5 [0 | 8] *msgDigestKey*

no ip ospf message-digest-key *keyID*

- *keyID*—Key identifier in the range 1–255
- md5—Specifies use of the MD5 algorithm
- 0—Indicates the *msgDigestKey* is entered in unencrypted form (plaintext); this is the default option
- 8—Indicates the *msgDigestKey* is entered in encrypted form (ciphertext)
- *msgDigestKey*—OSPF password; string of up to 16 alphanumeric characters

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ospf network

Description Configures the OSPF network type to something other than the default for the network medium. The **no** version restores the default value for the medium.

Syntax ip ospf network { broadcast | non-broadcast | point-to-point }

no ip ospf network

- broadcast—Sets the network type to broadcast
- non-broadcast—Sets the network type to NBMA
- point-to-point—Sets the network type to point-to-point

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ospf priority

Description Sets the router priority. Used in determining the designated router for the particular network. This designation applies only to multiaccess networks. Every broadcast and nonbroadcast multiaccess network has a designated router. The **no** version restores the default value.

Syntax ip ospf priority *intfPriority*

no ip ospf priority

- *intfPriority*—Priority value, an 8-bit number in the range 1–255; default value is 1

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ospf retransmit-interval

Description Specifies the time between LSA retransmissions for the interface when an acknowledgment for the LSA is not received. The **no** version restores the default value.

Syntax ip ospf retransmit-interval *retransInterval*

no ip ospf retransmit-interval

- *retransInterval*—Number in the range 0–3600 seconds; default value is 5 seconds

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ospf shutdown

Description Disables OSPF on an interface. The **no** version enables OSPF on the interface.

Syntax [no] ip ospf shutdown

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ospf transmit-delay

Description Sets the estimated time it takes to transmit a link-state update packet on the interface. The **no** version restores the default value.

Syntax ip ospf transmit-delay *transmDelay*

no ip ospf transmit-delay

- *transmDelay*—Link-state transmit delay, a number in the range 0–3600 seconds; default value is 1 second

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip pim

Description In Interface Configuration mode, enables PIM on an interface. In Profile Configuration mode, enables a PIM interface for a dynamic profile. The **no** version disables PIM on an interface.

Syntax In Interface Configuration mode:
[no] ip pim [dense-mode | sparse-mode | sparse-dense-mode]

In Profile Configuration mode:
[no] ip pim [sparse-mode | sparse-dense-mode]

- dense-mode—Enables PIM in dense mode
- sparse-mode—Enables PIM in sparse mode
- sparse-dense-mode—Enables PIM in sparse-dense mode

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
Profile Configuration mode added in JUNOSe Release 8.2.0.

ip pim bfd-liveness-detection

Description Enables BFD (bidirectional forwarding detection) on an interface running PIM and defines BFD values to be negotiated between PIM neighbors for detection of IP data path failures. The **no** version disables BFD on the PIM interface.

Syntax ip pim bfd-liveness-detection [minimum-interval *minInterval* |
[minimum-receive-interval *minRecInterval*]
[minimum-transmit-interval *minTransInterval*]] [multiplier *multValue*]

no ip pim bfd-liveness-detection

- *minInterval*—Minimum proposed transmit interval and required receive interval for BFD control packets; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minRecInterval*—Minimum interval at which the local router must receive BFD control packets sent by its neighbors; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minTransInterval*—Minimum proposed interval between BFD control packets sent by the local router; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *multValue*—Detection multiplier value that the remote neighbor multiplies by the local router's negotiated transmit interval to determine the remote neighbor's BFD liveness detection interval; equal to the number of BFD packets that can be missed before the BFD session is declared down; number in the range 1–255; default value is 3

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.0.0.

ip pim bsr-candidate

Description Defines a router as a bootstrap router (BSR) candidate. The **no** version disables the router BSR candidacy.

Syntax ip pim bsr-candidate *interfaceType interfaceSpecifier* [*hashMaskLen* [priority *priority*]] [period *bootstrapPeriod*]

no ip pim bsr-candidate

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*. The autoRP announcement messages will contain the IP address for this interface.
- *hashMaskLen*—Length (up to 32 bits) of the hash mask length field sent in BSMs that the router originates; default value is 30 bits
- *priority*—Value in the range 0–255 of the BSR-Priority field of BSMs that the router originates; default value is 0
- *bootstrapPeriod*—Interval in the range 1–65535 seconds at which the BSR sends bootstrap messages; default value is 60 seconds

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip pim data-mdt

Description Activates data MDTs and enters IP PIM Data MDT Configuration mode. The **no** version deactivates data MDTs.

Syntax [no] ip pim data-mdt

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.2.0.

ip pim dr-priority

Description Assigns a priority for the interface to be selected as the designated router. An interface with a higher priority value is preferred as a designated router over an interface with a lower priority value. The **no** version restores the default value of one.

Syntax ip pim dr-priority *priority*

no ip pim dr-priority

- *priority*—Value in the range 1–254; default value is 1

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 9.0.0.

ip pim group-address-pool

Description Configures PIM group address pools from which data MDT group addresses are allocated.

Syntax ip pim group-address-pool *poolName groupAddressMinimum groupAddressMaximum*

no ip pim group-address-pool *poolName*

- *poolName*—Name of the group address pool
- *groupAddressMinimum*—Minimum value in the group address range
- *groupAddressMaximum*—Maximum value in the group address range

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.2.0.

ip pim join-filter

Description Specifies an extended access list that you want this PIM interface to use as a join filter. If an interface-level filter exists, it takes precedence over the global-level filter. The **no** version removes the filter association.

Syntax ip pim join-filter *accessListName*

no ip pim join-filter

- *accessListName*—Name of the access list that you want this interface to use as a PIM join filter; a string of up to 32 alphanumeric characters

Mode Global Configuration, Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
Profile Configuration mode added in JUNOSe Release 8.2.0.

ip pim query-interval

Description Specifies how often the router sends PIM router query messages from this interface. The **no** version specifies the default time interval, 30 seconds.

Syntax ip pim query-interval *queryTime*

no ip pim query-interval

- *queryTime*—Interval in the range 0–210 seconds at which the router sends PIM router query messages from this interface

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
Profile Configuration mode added in JUNOSe Release 8.2.0.

ip pim rp-address

Description Specifies a static PIM group–to–RP mapping. The **no** version clears the mapping from this interface.

Syntax [no] ip pim rp-address *ipAddress* [*ipAccessList*] [override]

- *ipAddress*—IP address of the router you want to designate as an RP router
- *ipAccessList*—Name of the IP access list that specifies which multicast groups use this RP
- override—Specifies that this static RP mapping has priority over group-to-RP mappings learned by auto-RP

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip pim rp-candidate

Description Defines a router as a rendezvous point (RP) router candidate. The **no** version stops the router from being an RP candidate.

Syntax ip pim rp-candidate *interfaceType interfaceSpecifier* [group-list *accessListName*] [hold-time *holdTime*] [priority *priority*] [interval *interval*]

no ip pim rp-candidate *interfaceType interfaceSpecifier*

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*. The autoRP announcement messages will contain the IP address for this interface.
- *accessListName*—Access list containing the set of group prefixes supported by this C-RP. If no group-list is specified, the default value is the entire multicast address range.
- *holdTime*—Amount of time in the range 1–65535 seconds that the BSR keeps an RP in its C-RP list if the BSR does not receive a C-RP advertisement message; default value is 150 seconds
- *priority*—Priority field value in the range 0–255 that the C-RP sends to the BSR in C-RP advertisement messages. In the RP election process, the RP with the lower priority value is preferred; default value is 192
- *interval*—Interval in the range 1–65535 seconds at which the C-RP sends advertisement messages to the BSR; default value is 60 seconds

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip pim send-rp-announce

Description Sends autoRP announcement messages from a router you configured as an RP. The **no** version clears the specified filters from this interface.

Syntax ip pim send-rp-announce *interfaceType interfaceSpecifier* scope *ttl* [group-list *ipAccessList*] [interval *seconds*]

no ip pim send-rp-announce *interfaceType interfaceSpecifier* [scope *ttl*] [group-list *ipAccessList*] [interval *seconds*]

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*. The autoRP announcement messages will contain the IP address for this interface.
- *ttl*—Time-to-live value; the number of hops for which the announcement is valid in the range 1–65535; default value is 64 hops
- *ipAccessList*—Name of the IP access list that specifies which multicast groups use this RP; default value is no access list
- *seconds*—Time interval in the range 1–65535 seconds at which the router sends the announcements; default value is 60 seconds

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip pim send-rp-discovery scope

Description Configures the router as an RP mapping agent, which records RP-to-group mappings and notifies PIM DRs about the mappings. The **no** version stops the router from acting as an RP mapping agent.

Syntax ip pim send-rp-discovery scope *ttl* [*interfaceType interfaceSpecifier*]

no ip pim send-rp-discovery

- *ttl*—Time-to-live value; number of hops for which the RP discovery message is valid. Specify a value that covers the PIM domain.
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*. If you specify an interface, the autoRP discovery messages will contain the IP address for this interface.

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip pim sparse-mode graceful-restart-duration

Description Sets duration time for IP PIM sparse-mode graceful restart. The **no** version resets the duration to the default.

Syntax ip pim sparse-mode graceful-restart-duration *seconds*

no ip pim sparse-mode graceful-restart-duration

- sparse-mode—Enables PIM in sparse mode
- *seconds*—Restart duration in seconds; default value is 30 seconds

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

ip pim spt-threshold

Description Specifies the network configuration that PIM sparse mode uses when a source starts sending multicast messages. The **no** version restores the default value, 0.

Syntax [no] ip pim spt-threshold { 0 | *nonzero_integer* | infinity } [group-list *ipAccessList*]

- 0—Configures PIM sparse mode to switch to an SPT when a source begins to send multicast messages
- *nonzero_integer*—Integer in the range 1–4294967294; prevents PIM sparse mode from switching from a shared tree to an SPT
- infinity—Prevents PIM sparse mode from switching from a shared tree to an SPT
- *ipAccessList*—Name of the IP access list that specifies the groups to which the threshold applies

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip pim ssm

Description Enables SSM and defines the SSM range of IP multicast addresses. The **no** version disables SSM on the router.

Syntax ip pim ssm [default | range *ipAccessList*]

no ip pim ssm

- default—Specifies that SSM use the IANA-specified range of 232/8
- *ipAccessList*—Name of the IP access list that specifies the range of multicast addresses you want SSM to use

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip policy

Description Assigns a policy list to the ingress or egress of an interface.

For standard policy lists, specify the **input** or **output** keyword to assign the policy list to the ingress or egress of the interface. If you enter the **ip policy** command and the policy list does not exist, the router inserts a default filter rule. Attaching this policy list to an interface filters all packets on that interface.

For secure policy lists, which are used for packet mirroring, use the **secure-input** or **secure-output** keyword to assign the packet mirroring policy list to the ingress or egress side of the interface. If you use the **ip policy** command and the secure policy list does not exist, the router creates a secure policy list with a default mirror rule that disables mirroring. Attaching this policy list to an interface results in no packet mirroring.

In Profile Configuration mode, assigns the policy list to a profile, which then assigns the policy to an interface.

In Interface Configuration mode, the **no** version removes the association between a policy list and an interface. In Profile Configuration mode, the **no** version removes policy reference from the profile.

Syntax For standard policy lists in Interface Configuration mode:

ip policy { input | output } *policyName*
[statistics { enabled [baseline { enabled | disabled }] [preserve | merge] | disabled [merge] } | merge]

no ip policy { input | output | secondary-input } [*policyName*]

For secure policy lists in Interface Configuration mode:

ip policy { secure-input | secure-output } *policyName*
[statistics { enabled [baseline *baselineValue*] [preserve] | disabled }]

no ip policy { secure-input | secure-output }

For policy lists in Profile Configuration mode:

ip policy { input | output } *policyName*
[statistics { enabled | disabled }] [merge]

no ip policy { input | output | secondary-input } [*policyName*]

- input—Applies policy to data arriving at this interface before a route lookup
- output—Applies policy to data leaving this interface

- secondary-input—Applies policy to data that arrives at this interface after a route lookup
- secure-input—Applies secure policy to data arriving at this interface
- secure-output—Applies secure policy to data leaving this interface

NOTE: The **ip policy** command used with the **secure-input** and **secure-output** keywords provides packet mirroring support. These keywords are available in Interface Configuration mode and do not support the statistics-related keywords. The **ip policy** command used with these keywords replaces the **ip mirror** command, which has been deprecated.

- *policyName*—Name of the policy; a maximum of 40 characters
- statistics—Enables or disables collection of policy routing statistics
  - enabled—Enables collection of policy routing statistics
  - baseline enabled—Enables baselining of policy routing statistics (Interface Configuration mode only)
  - baseline disabled—Disables baselining of policy routing statistics (Interface Configuration mode only)
  - preserve—Preserves existing statistics for any classifier list that is the same for both the new and old policy attachments when you attach a new policy to an interface
  - disabled—Disable collection of policy routing statistics
- merge—Enables merging of multiple policies to form a single policy

NOTE: The **local-input** keyword for the **ip policy** command is deprecated, and might be completely removed in a future release. We recommend that you remove the keyword from scripts.

Mode

Interface Configuration, Profile Configuration

Release Information

Command introduced before JUNOSe Release 7.1.0.
merge keyword added in JUNOSe Release 7.2.0.
Profile Configuration mode added in JUNOSe Release 7.2.0.

Related Topics

- Setting a Statistics Baseline
- Configuring CLI-Based Mirroring

ip policy-list

Description Creates or modifies an IP policy list. If you execute an **ip policy-list** command and type **exit**, the router creates a policy list with no rules, the default. When a policy list does not have rules, the router inserts a default filter rule. Attaching this policy list to an interface filters all packets on that interface. The **no** version removes a policy list.

Syntax [no] ip policy-list *policyName*

- *policyName*—Name of the policy list

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Creating Policy Lists for IP

ip policy-parameter hierarchical

Description Specifies a parameter value for IP interfaces. The **no** version removes the policy parameter and its contents.

Syntax ip policy-parameter hierarchical *parameterName* { *nodeValue* | atm | atm-vc | atm-vp *vpValue* | ethernet | fr-vc | forwarding | svlan *svlanValue* | vlan }

no policy-parameter *parameterName*

- *parameterName*—Name of policy parameter
- *nodeValue*— Aggregation node number in the range 1–65535
- *vpValue*—ATM VPI number in the range 0–255
- *svlanValue*—SVLAN ID number in the range 0–4095

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.0.0.

Related Topics

- Creating a Classifier Group for a Policy List

ip policy-parameter reference-rate

Description Creates an IP policy parameter for a reference rate; creates a global parameter if it does not exist. The **no** version removes the policy parameter and its contents; if used with the **increase** keyword, decreases the value.

Syntax In Interface Configuration mode:

ip policy parameter reference-rate *parameterName* [increase] *value*

no ip policy-parameter reference-rate *parameterName* [increase *value*]

In Profile Configuration mode:

ip policy parameter reference-rate *parameterName* [increase] *value*

no ip policy-parameter reference-rate *parameterName*

- *parameterName*—Name of policy parameter up to 40 characters
- increase—Increments the existing reference rate value
- *value*—Value of the reference rate parameter, in the range 0–4292967295

Mode Interface Configuration, Profile Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

Related Topics

- Creating a Classifier Group for a Policy List

ip prefix-list

Description Creates a prefix list for route filtering; specifies a list entry—a permit or deny clause for a network address. The **no** version removes the specified prefix list or the specified list entry.

Syntax ip prefix-list *listName* { description *desc* |
[seq *sequence*] { permit | deny } *ipPrefix* [ge *geNumber*] [le *leNumber*] }

no ip prefix-list *listName* [description |
[seq *sequence*] [{ permit | deny } *ipPrefix* [ge *geNumber*] [le *leNumber*]]]

- *listName*—Name of the prefix list; a string of up to 32 characters
- *desc*—Description of the prefix list
- *sequence*—Number in the range 0–65535 that indicates the position the prefix list entry is to have in the list of entries already configured for the prefix list; if *sequence* is not specified, the value of the last sequence number + 5 is used
- permit—If the prefix of the route being filtered matches the specified prefix and **permit** is specified, the route is redistributed as controlled by the set actions
- deny—If the prefix of the route being filtered matches the specified prefix and **deny** is specified, the route is not redistributed
- *ipPrefix*—Network route to be filtered, in the format *network/length*, where
  - *network*—Base address of the network route to be filtered; for example, 192.168.32.0 or 10.10.0.0
  - *length*—Length of the network prefix; number of bits masking base address to produce address to be matched
- *geNumber*—Route being filtered matches if its prefix is within the range specified: greater than or equal to *geNumber* and less than or equal to 32
- *leNumber*—Route being filtered matches if its prefix is within the range specified: greater than or equal to *length* and less than or equal to *leNumber*

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip prefix-tree

Description Creates a prefix tree for best-match route filtering; specifies a tree entry—a deny or permit clause for a network address. The **no** version removes the specified prefix tree or the specified tree entry.

Syntax ip prefix-tree *treeName* { description *desc* | { permit | deny } *ipPrefix* }

no ip prefix-tree *treeName* [description | { permit | deny } *ipPrefix*]

- *treeName*—Name of the prefix list; a string of up to 32 characters
- *desc*—Description of the prefix list
- deny—If the prefix of the route being filtered matches the specified prefix and **deny** is specified, the route is not redistributed
- permit—If the prefix of the route being filtered matches the specified prefix and **permit** is specified, the route is redistributed as controlled by the set actions
- *ipPrefix*—Network route to be filtered, in the format *network/length*, where
  - *network*—Base address of the network route to be filtered; for example, 192.168.32.0 or 10.10.0.0
  - *length*—Length of the network prefix; number of bits masking base address to produce address to be matched

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip profile

Description Specifies the IP profile that the IPSec layer passes on to the IP layer upon request for upper-layer instantiation. The **no** version removes the association with this profile.

Syntax ip profile *profileName*

no ip profile

- *profileName*—Name of the profile that you want the IPSec layer to pass to the IP layer upon request for upper-layer instantiation

Mode IPSec Tunnel Profile Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

ip proxy-arp

Description Enables proxy ARP on an Ethernet or bridge1483 interface. Proxy ARP is enabled by default. The **no** version disables proxy ARP on an Ethernet or bridge1483 interface.

Syntax ip proxy-arp [restricted | unrestricted]

no ip proxy-arp

- restricted—Restricts proxy-arp to hosts on the local interface
- unrestricted—Enables proxy-arp for all reachable hosts

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip redirects

Description Enables the sending of redirect messages if the software is forced to resend a packet through the same interface on which it was received. The **no** version disables the sending of redirect messages.

Syntax [no] ip redirects

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip refresh-route

Description Reinstalls routes removed from the IP routing table by the **clear ip route** command. There is no **no** version.

Syntax ip refresh-route [vrf *vrfName*]

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

ip rip

Description Configures RIP to run on the network specified by the **network** command. Uses the default values: send version is RIP version 1, receive version is RIP version 1 and version 2, authentication is not enabled. The **no** version deletes the RIP interface.

Syntax [no] ip rip

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip rip authentication key

Description Specifies the password for text authentication and the key for MD5 authentication. The **no** version clears the key for the interface. Supported only in RIP version 2. Authentication is disabled by default.

Syntax ip rip authentication key [0 | 8] *authkey*

no ip rip authentication key

- 0—Indicates the *authKey* is entered in unencrypted form (plaintext); this is the default option
- 8—Indicates the *authKey* is entered in encrypted form (ciphertext)
- *authkey*—Password sent with RIP messages or the key used to encrypt/decrypt RIP messages, depending on the authentication mode set for this interface

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip rip authentication mode

Description Specifies the type of authentication used on this interface. The **no** version removes authentication from the interface. Supported only in RIP version 2. Authentication is disabled by default.

Syntax ip rip authentication mode { text | md5 *keyID* }

no ip rip authentication mode

- text—Sends a simple text password with each RIP message; if the password is not possessed by neighbors, the message is rejected
- md5—Encrypts and compresses the RIP message with MD5 message-digest algorithms
- *keyID*—Number identifying the MD5 key; neighbors must share the MD5 key to decrypt the message and encrypt the response

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip rip bfd-liveness-detection

Description Enables BFD (bidirectional forwarding detection) on an interface running RIP and defines BFD values to be negotiated between peers for detection of IP data path failures. The **no** version disables BFD on the RIP interface.

Syntax ip rip bfd-liveness-detection [minimum-interval *minInterval* |
[minimum-receive-interval *minRecInterval*]
[minimum-transmit-interval *minTransInterval*]] [multiplier *multValue*]

no ip rip bfd-liveness-detection

- *minInterval*—Minimum proposed transmit interval and required receive interval for BFD control packets; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minRecInterval*—Minimum interval at which the local peer must receive BFD control packets sent by the remote peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minTransInterval*—Minimum proposed interval between BFD control packets sent by the local peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *multValue*—Detection multiplier value that the remote peer router multiplies by the local peer's negotiated transmit interval to determine the remote peer's BFD liveness detection interval; equal to the number of BFD packets that can be missed before the BFD session is declared down; number in the range 1–255; default value is 3

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.0.0.

ip rip copy-to-dynamic

Description Enables RIP on dynamic, unnumbered IP interfaces. You cannot configure RIP on dynamic interfaces directly. However, this command allows dynamic, unnumbered interfaces (that refer to numbered IP interface for configuration data) to obtain RIP attributes from the numbered IP interface to which they refer. The **no** version disables the feature but does not remove all existing, active RIP interfaces that were created by this command.

Syntax [no] ip rip copy-to-dynamic

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip rip receive version

Description Restricts the RIP version that the router can receive on an interface. The **no** version sets the interface back to the default value, receiving both RIP version 1 and version 2.

Syntax ip rip receive version { 1 | 2 | 1 2 | 2 1 | off }

no ip rip receive version

- 1—Specifies RIP version 1 only
- 2—Specifies RIP version 2 only
- 1 2—Specifies RIP version 1 and version 2
- 2 1—Specifies RIP version 2 and version 1
- off—Turns reception off

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip rip send version

Description Restricts the RIP version that the router can send on an interface. The **no** version sets the interface back to the default value, sending only RIP version 1.

Syntax ip rip send version { 1 | 2 | 1 2 | 2 1 | off }

no ip rip send version

- 1—Specifies RIP version 1 only
- 2—Specifies RIP version 2 only
- 1 2—Specifies RIP version 1 and version 2
- 2 1—Specifies RIP version 2 and version 1
- off—Turns reception off

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip route

Description Establishes static routes and can also enable Bidirectional Forwarding Detection (BFD) for the static route. The **no** version removes static routes or removes BFD from the static route.

Syntax ip route [vrf *vrfName*] { *ipAddress ipMask* { *ipNextHop*
[*interfaceType interfaceSpecifier*] | *interfaceType interfaceSpecifier* } }
[*distance*] [tag *tagVal*] [permanent] [verify rtr *rtrIndex* [last-resort]]
[verify bfd-liveness-detection [minimum-interval *minInterval* |
[minimum-receive-interval *minRecInterval*]
[minimum-transmit-interval *minTransInterval*]]] [multiplier *multValue*] [last-resort]]

no ip route [vrf *vrfName*] *ipAddress ipMask* [*ipNextHop* | *interfaceType interfaceSpecifier*] [*distance*]

- *vrfName*—Name of the VRF if the static route is being established within a VRF context; available only in Global Configuration mode
- *ipAddress*—Destination IP address
- *ipMask*—IP mask for the destination
- *ipNextHop*—IP address of the next hop that can be used to reach the destination network
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *distance*—Administrative distance for this route in the range 0–254
- *tagVal*—Number in the range 0–4294967295 that identifies the tag for this route
- permanent—Specifies that the route will not be removed, even if the interface shuts down
- verify rtr—Installs the static route in the routing table only if the next hop to the specified destination address is resolved and if the specified RTR operation is currently reachable
- *rtrIndex*—Number of the RTR operation to be verified; there is no default value
- last-resort—Installs the static route in the routing table even if the specified RTR operation is currently unreachable, provided that no other static route to the same network prefix is available
- verify bfd-liveness-detection—Installs the static route in the routing table only if the next hop to the specified destination address is verifiable by means of BFD liveness detection

- *minInterval*—Minimum proposed transmit interval and required receive interval for BFD control packets; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minRecInterval*—Minimum interval at which the local peer must receive BFD control packets sent by the remote peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minTransInterval*—Minimum proposed interval between BFD control packets sent by the local peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *multValue*—Detection multiplier value that the remote peer router multiplies by the local peer's negotiated transmit interval to determine the remote peer's BFD liveness detection interval; equal to the number of BFD packets that can be missed before the BFD session is declared down; number in the range 1–255; default value is 3

Mode Global Configuration, VRF Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip route-cache flow sampled

Description Enables J-Flow statistics on an interface. The **no** version disables J-Flow statistics on the interface.

Syntax [no] ip route-cache flow sampled

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
Profile Configuration mode added in JUNOSe Release 7.2.0.

ip route-map ip-subscriber

Description Configures an interface for route-map processing and specifies the route map that is applied to the IP interface subscriber. If no route map is specified, then all packets will trigger the creation of a dynamic subscriber interface. The **no** version deletes the route map.

Syntax ip route-map ip-subscriber *routeMapName*

no ip route-map ip-subscriber

- *routeMapName*—Name of route map

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip route-type

Description Specifies whether BGP, IS-IS, OSPF, or RIP routes are available only for unicast forwarding, only for multicast reverse path forwarding checks, or for both. The **no** version restores the default value, **unicast** for BGP or **both** for IS-IS, OSPF, and RIP.

Syntax For BGP:

ip route-type [unicast | both]

no ip route-type

For IS-IS, OSPF, and RIP:

ip route-type [unicast | multicast | both]

no ip route-type

- unicast—Specifies that routes for the protocol are available only for unicast forwarding
- multicast—Specifies that routes for the protocol are available only for multicast route path forwarding checks; this option is not available for BGP
- both—Specifies that routes for the protocol are available for both unicast forwarding and multicast route path forwarding checks

Mode Address Family Configuration (RIP), Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip router-id

Description Establishes the IP address of a router. The **no** version removes the IP address assignment.

Syntax [no] ip router-id [*vrfName*] *ipAddress*

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *ipAddress*—IP address of the router

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring the Loopback Interface and Router ID for BGP

ip router isis

Description Configures an IS-IS routing process for IP on an interface. The **no** version disables IS-IS for IP on the interface.

Syntax [no] ip router isis [*tag*]

- *tag*—Meaningful name for a routing process. If not specified, a null tag is assumed. The name must be unique among all IP router processes for a given router. Use the same text for the argument tag as specified in the **router isis** command.

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip-router-name

Description Assigns an IPv4 virtual router. The **no** version restores the default router.

NOTE: This command replaces the deprecated **router-name** command, which may be removed completely in a future release.

Syntax [no] ip-router-name *vrName*

- vrName—Name of the virtual router; string of 1–32 alphanumeric characters

Mode Domain Map Configuration

Release Information Command introduced in JUNOSe Release 9.0.0.

ip rpf-route

Description Customizes static routes that the router can use to verify source addresses in multicast packets. The **no** version removes the static route.

Syntax ip rpf-route *ipAddress addressMask*
{ *nextHopIpAddress* | *nextHopInterfaceType nextHopInterfaceSpecifier* }
[*distanceValue*] [tag *tagValue*]

[no] ip rpf-route *ipAddress addressMask*

- *ipAddress*—IP address of the destination network
- *addressMask*—Subnet mask for the destination network
- *nextHopIpAddress*—IP address of the next hop
- *nextHopInterfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *nextHopInterfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *distanceValue*—Number in the range 0–255 that indicates the preference for this route
- *tagValue*—Number in the range 0–4294967295 that identifies the route in the routing table

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip rsvp authentication

Description Enables MD5 authentication on the RSVP interface in implementations on routers from other vendors. See the **mpls rsvp authentication** command for a complete description and syntax.

ip rsvp authentication key

Description Assigns a key for MD5 authentication between RSVP peers in implementations on routers from other vendors. See the **mpls rsvp authentication key** command for a complete description and syntax.

ip rsvp bandwidth

Description Specifies the total bandwidth *reservable* on the interface in a non–E-series implementation. See the **mpls bandwidth** command for a complete description and syntax.

ip rsvp bfd-liveness-detection

Description Enables BFD (bidirectional forwarding detection) on an interface running RSVP-TE and defines BFD values to be negotiated between RSVP-TE neighbors for detection of IP data path failures. See the **mpls rsvp bfd-liveness-detection** command for a complete description and syntax.

ip rsvp signalling hello

Description Turns on or configures RSVP-TE hello support. See the **mpls rsvp signalling hello** command for a complete description and syntax.

ip sa-validate

Description Enables source address validation on an interface. This feature verifies that a packet has been sent from a valid source address. When a packet arrives on an interface, the router performs a routing table lookup using the source address. The result from the routing table lookup is an interface to which packets destined for that address are routed. This interface must match the interface that the packet arrived on. If it does not match, the router drops the packet. The **no** version disables source address validation.

Syntax [no] ip sa-validate

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip sa-validate trap-enable

Description Enables the generation of source address validation failure traps. The **no** version disables the generation of source address validation failure traps.

Syntax [no] ip sa-validate [vrf *vrfName*] trap-enable

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

ip service-profile

Description Specifies a service profile used in the route map and enters Service Profile configuration mode. The **no** version deletes the profile.

Syntax ip service-profile *profileName*

no ip service-profile

- *profileName*—Name of service profile

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip share-interface

Description Specifies the layer 2 interface that an IP interface will share in the current virtual router. The **no** version removes the association between the layer 2 interface and the shared IP interface.

Syntax ip share-interface *interfaceType interfaceSpecifier*

no ip share-interface

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip share-nexthop

Description Specifies that the shared IP interface dynamically tracks a next hop for the specified destination. The **no** version halts tracking of the next hop.

Syntax ip share-nexthop *ipAddress* [virtual-router *vrName*]

no ip share-nexthop

- *ipAddress*—IP address of the destination for which the next hop is tracked
- *vrName*—Name of the virtual router for the next hop

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip shutdown

Description Shuts down an IP interface. The **no** version restarts the interface.

Syntax [no] ip shutdown

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip source-prefix

Description Configures a subscriber interface or a primary IP interface that is enabled for dynamic creation of subscriber interfaces to demultiplex traffic with the specified IP address and mask. The **no** version removes the association between the interface and the specified IP address and mask.

Syntax [no] ip source-prefix *ipAddress ipAddressMask* deny

- *ipAddress*—IP address of the physical interface that receives messages for this subscriber
- *ipAddressMask*—Network mask for associated IP subnet
- deny—Filters packets matching this command

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip source-route

Description Enables the forwarding of source-routed packets in a VR or VRF. The **no** version disables forwarding. Forwarding is disabled by default in all VRs.

Syntax [no] ip source-route [vrf *vrfName*]

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip speed

Description Sets the speed of an IP interface in bits per second. The **no** version restores the default value, 0 bps.

Syntax [no] ip speed *adminSpeed*

- *adminSpeed*—Speed of the interface in bps in the range 1–4294967295

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip split-horizon

Description Enables split horizon, preventing the RIP router from advertising routes from the interface originating the route, reducing the possibility of routing loops; this is the default condition. The **no** version disables split horizon.

Syntax [no] ip split-horizon

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ssh authentication-retries

Description Sets the number of times that a user can retry a failed authentication (such as trying to correct a wrong password) before the server terminates the connection. The **no** version restores the default value, 20 retries.

Syntax ip ssh authentication-retries *retryLimit*

no ip ssh authentication-retries

- *retryLimit*—Number of times authentication can be retried after the initial failure within a given connection attempt

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ssh crypto

Description Adds an encryption algorithm to the specified list of supported algorithms. The **no** version removes or excludes an algorithm from the specified list. The **default** version restores the default algorithms for the specified list.

Syntax ip ssh crypto [client-to-server | server-to-client] [no | default] *cipherAlgorithm*

- client-to-server—Adds the specified algorithm to the SSH server's list of supported inbound algorithms
- server-to-client—Adds the specified algorithm to the SSH server's list of supported outbound algorithms
- no—Removes or excludes the specified algorithm from the list
- default—Restores the specified list to the factory defaults, which includes 3des-cbc, twofish-cbc, and blowfish-cbc
- *cipherAlgorithm*—Algorithm to add to the list

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ssh disable-user-authentication

Description Disables RADIUS password authentication, resulting in the acceptance of all SSH clients that pass protocol negotiation. The **no** version restores RADIUS authentication.

Syntax [no] ip ssh disable-user-authentication

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ssh mac

Description Adds a MAC algorithm to the specified list of supported algorithms. The **no** version removes or excludes an algorithm from the specified list. The **default** version restores the default algorithms for the specified list.

Syntax ip ssh mac [client-to-server | server-to-client] [no | default] *macAlgorithm*

- client-to-server—Adds the specified algorithm to the SSH server's list of supported inbound algorithms
- server-to-client—Adds the specified algorithm to the SSH server's list of supported outbound algorithms
- no—Removes or excludes the specified algorithm from the list
- default—Restores the specified list to the factory defaults, which includes hmac-md5, hmac-sha1, and hmac-sha1-96
- *macAlgorithm*—Algorithm to add to the list

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ssh sleep

Description Sets a sleep period in seconds for users that have exceeded the authentication retry limit. Connection attempts from the user at the same host are denied until this period expires. The **no** version restores the default value, 600 seconds.

Syntax ip ssh sleep *sleepPeriod*

no ip ssh sleep

- *sleepPeriod*—Period in the range 0–4294967295 seconds

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ssh timeout

Description Sets a timeout period in seconds. The SSH server terminates the connection if protocol negotiation—including user authentication—is not complete within this timeout. The **no** version restores the default value, 600 seconds.

Syntax ip ssh timeout *timeout*

no ip ssh timeout

- *timeout*—Period in the range 10–600 seconds

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip static-route table-map

Description Filters static routes before adding them to the routing table. The **no** version deletes the table map.

Syntax ip static-route table-map [vrf *vrfName*] *mapName*

no ip static-route table-map [vrf *vrfName*] [*mapName*]

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *mapName*—Name of the table map that you want the router to use

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip summary-address

Description Summarizes specified addresses for RIP. The **no** version removes the summarization.

Syntax ip summary-address [rip] *ipAddress ipAddressMask* [metric]

no ip summary-address [rip] *ipAddress ipAddressMask*

- rip—Specifies optional keyword for compatibility with non–E-series implementations
- *ipAddress*—IP address identifying the route to be summarized
- *ipAddressMask*—Network mask identifying the route to be summarized
- metric—Specifies a metric for the summary address; default value is 1

Mode Address Family Configuration, Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip tcp ack-rst-and-syn

Description The **ip** keyword for **tcp** commands is now optional (with the exception of the **ip tcp adjust-mss** command, which is IPv4 specific). For information about this command and any other **ip tcp** command, see the **tcp** commands.

ip tcp adjust-mss

Description Modifies the maximum segment size (MSS) for TCP SYN packets traveling through the interface. The router compares the MSS value of incoming or outgoing packets against the MSS adjustment value. For any packet that contains an MSS value larger than the MSS adjustment value, the router replaces the MSS option with the configured adjustment value. If the packet does not contain an MSS value, the router assumes a value of 536 for the packet MSS on which to base the comparison. The **no** version removes the MSS modification.

NOTE: The purpose behind using MSS is to alleviate problems with Path MTU Discovery (PMTUD) and resulting "black hole" detection issues. See *RFC 2923—TCP Problems with Path MTU Discovery (September 2000)* for additional information about the black hole scenario.

Syntax [ip] tcp adjust-mss *mssAdjustment*

no [ip] tcp adjust-mss

- ip—Specifies optional keyword for use with older scripts
- *mssAdjustment*—Adjustment value for the MSS; in the range 160–10240

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip ttl

Description Sets the hop count specified by the TTL field in the IP header used by IP for all operations unless overridden by another command. The **no** version restores the default value, 127.

Syntax ip ttl [*vrfName*] *ttlValue*

no ip ttl [*vrfName*]

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *ttlValue*—Number in the range 1–255

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip tunnel reassembly

Description Enables the reassembly of fragmented IP tunnel packets that are received on the current virtual router. The **no** version restores the default disabled condition.

Syntax [no] ip tunnel reassembly

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip unnumbered

Description Enables IP processing on an interface without assigning an explicit IP address to the interface. The **no** version disables IP processing on the interface.

Syntax [no] ip unnumbered *interfaceType interfaceSpecifier*

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip unreachables

Description Enables the generation of an ICMP unreachable message when a packet is received that cannot be delivered by the router. The **no** version disables this function.

Syntax [no] ip unreachables

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip use-framed-routes ip-subscriber

Description Configures the router to enable a static primary IP interface to use the RADIUS Framed-Route attribute [22]. The primary IP interface applies the framed routes as source IP addresses when creating and configuring dynamic subscriber interfaces. The **no** version disables the primary IP interface support of the Framed-Route RADIUS attribute.

Syntax [no] ip use-framed-routes ip-subscriber

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

ip virtual-router

Description Specifies a virtual router in an IP profile. Dynamic interfaces created with the profile are assigned to this VR. The **no** version removes the VR from the profile; if a VR is not specified via RADIUS, then any subsequent creation process for dynamic interfaces using the profile fails.

Syntax [no] ip virtual-router *vrName*

- *vrName*—Name of the virtual router; a string of 1–15 alphanumeric characters

Mode Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip vrf

Description Creates a VRF or accesses VRF Configuration mode to configure a VRF. The **no** version deletes the VRF.

NOTE: After creating the VRF, you must configure a route distinguisher for it via the **rd** command; otherwise, the VRF will not operate.

Syntax ip vrf *vrfName*

no ip vrf *vrfName* [wait-for-completion [*waitSeconds*]]

- *vrfName*—Name of the VRF; a string of 1–32 alphanumeric characters
- wait-for-completion—Specifies (in the absence of *waitSeconds*) that the CLI waits for completion of the **no** version operation before it returns a prompt, regardless of how long that takes
- *waitSeconds*—Number of seconds in the range 1–64000 that the CLI waits before it returns a prompt, regardless of whether the **no** version operation has completed

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip vrf forwarding

Description Assigns a VRF to an interface or subinterface. Optionally specifies secondary routing table lookup on the parent (global) virtual router forwarding table if a lookup on the initial VRF forwarding table does not yield any results. The **no** version removes the assignment or discontinues the secondary routing table lookup option.

NOTE: The **ip vrf forwarding** command changes the prompt to indicate that the CLI is now in Interface or Subinterface Configuration mode within the child VRF. This condition persists only for as long as you are configuring attributes on the given interface within the VRF. Entering a top-level command, such as **interface**, within this VRF context takes the CLI out of the VRF context back to the parent VR context.

NOTE: When you issue the **ip vrf forwarding** command from within the Interface Configuration or Subinterface Configuration mode of the parent VR, the IP address and other attributes of the interface are deleted from the interface. You must then reconfigure the IP attributes in the context of the VRF after issuing the command.

Syntax [no] ip vrf forwarding *vrfName* [fallback global]

- *vrfName*—Name of the VRF; a string of 1–32 alphanumeric characters
- fallback global—Specifies secondary routing table lookup on the parent (global) virtual router forwarding table, if an initial VRF forwarding table lookup does not yield results.

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip vrrp

Description Creates a VRRP instance ID. The **no** version removes a VRID. The default is disabled.

Syntax [no] ip vrrp *vrid*

- *vrid*—VRID identifier; a number in the range 1–255

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip vrrp accept-data

Description Enables the backup router to process packets with an IP destination address equivalent to the virtual addresses while the backup router is in the master state. The **no** version restores the default value, disabled.

NOTE: When using this attribute and also restricting incoming packets to ICMP only, you must use policy filters to accept only ICMP packets with the virtual address as the destination address.

Syntax [no] ip vrrp *vrid* accept-data

- *vrid*—VRID identifier; a number in the range 1–255

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip vrrp advertise-interval

Description Configures the VRRP advertisement interval time. You must use seconds to comply with RFC 2338. Use milliseconds only if all VRRP instances peering for the given VRID are composed of E-series routers. The **no** version restores the default value, 1 second.

Syntax ip vrrp *vrid* advertise-interval *advertiseInterval* [seconds | milliseconds]

no ip vrrp *vrid* advertise-interval

- *vrid*—VRID identifier; a number in the range 1–255
- *advertiseInterval*—Advertisement period in seconds or milliseconds; in the range 1–255 seconds or 100–255000 milliseconds
- seconds—Specifies interval in seconds
- milliseconds—Specifies interval in milliseconds

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip vrrp authentication-key

Description Specifies the authentication key. This command is only valid if the **text** keyword was selected in the **ip vrrp authentication-type** command. The **no** version negates the command or restores the default.

Syntax ip vrrp *vrid* authentication-key *key*

no ip vrrp *vrid* authentication-key

- *vrid*—VRID identifier; a number in the range 1–255
- *key*—String of 1–8 characters

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip vrrp authentication-type

Description Specifies the VRRP authentication type. The **no** version restores the default value, none.

Syntax ip vrrp *vrid* authentication-type { none | text }

no ip vrrp *vrid* authentication-type

- *vrid*—VRID identifier; a number in the range 1–255
- none—Disables authentication
- text—Specifies simple text password

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip vrrp enable

Description Enables a VRID. The **no** version disables a VRID. The default is disabled.

Syntax [no] ip vrrp *vrid* [enable]

- *vrid*—VRID identifier; a number in the range 1–255

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip vrrp preempt

Description Enables VRRP preemption. The **no** version disables VRRP preemption. The default is enabled.

Syntax [no] ip vrrp *vrid* preempt

- *vrid*—VRID identifier; a number in the range 1–255

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip vrrp priority

Description Configures the priority of VRRP routers. The **no** version restores the default value, 100.

Syntax ip vrrp *vrid* priority *priorityValue*

no ip vrrp *vrid* priority

- *vrid*—VRID identifier; a number in the range 1–255
- *priorityValue*—Priority value of the VRRP router; a number in the range 1–255; default value is 100

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ip vrrp track

Description Tracks a specified object and changes the priority of that object when the state of the object changes from an up state to a down state. The priority is decremented by the specified value or by the default value (100; when no decrement value is specified). The object priority is restored when the state of the object changes from a down state to an up state. The **no** version disables any tracking for the object.

Syntax ip vrrp *vrid* track *objectName* [decrement *priorityValue*]

no ip vrrp *vrid* track *objectName*

- *vrid*—VRID identifier; a number in the range 1–255
- *objectName*—Name of the object to track
- *priorityValue*—Priority value of the VRRP router; a number in the range 1–255; default value is 100

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

ip vrrp virtual-address

Description Associates an IP address with a VRID. The **no** version removes a list of IP addresses associated with a VRID. The **no** version clears the auto flag, if auto addresses are being used. There is no default.

Syntax ip vrrp *vrid* virtual-address { auto | ipAddress *ipAddress* [ipAddress *ipAddress*]* }

no ip vrrp *vrid* virtual-address [ipAddress *ipAddress*]*

- *vrid*—VRID identifier; a number in the range 1–255
- *ipAddress*—IP address
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipsec ca authenticate

Description Obtains the specified CA's public key (a self-signed certificate) during online digital certificate configuration. The CA must be previously declared by the **ipsec ca identity** command. There is no **no** version; however, to remove the CA certificate, issue the **no ipsec ca identity** command for the specified CA or boot the router using the factory defaults.

Syntax ipsec ca authenticate *caName*

- *caName*—Name of CA

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipsec ca enroll

Description Generates a certificate request to the specified CA and retrieves the public key certificate for the router during online digital certificate configuration. The CA must be previously declared by the **ipsec ca identity** command. There is no **no** version.

Syntax ipsec ca enroll *caName* [*password*]

- *caName*—Name of CA
- *password* —Challenge password to access the CA and enable enrollment

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipsec ca identity

Description Specifies the certificate authority (CA) that the router uses for certificate requests and enters IPSec Identity Configuration mode during online digital certificate configuration. The **no** version deletes the identity information and the certificates associated with the specified CA.

Syntax [no] ipsec ca identity *name*

- *name*—Name of CA

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipsec certificate-database refresh

Description Informs the E-series router that a public key certificate has been copied to the router. There is no **no** version.

Syntax ipsec certificate-database refresh

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipsec certificate-request generate

Description Generates a certificate request. There is no **no** version.

Syntax ipsec certificate-request generate rsa *fileName*

- rsa—Specifies that the certificate request is issued for the RSA public key
- *fileName*—Name of the certificate request file generated on the E-series router; the filename must include a .crq extension

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipsec clear sa

Description Refreshes ISAKMP/IKE or IPSec SAs. There is no **no** version.

Syntax ipsec clear sa { all [state *tunnelState*] | tunnel *tunnelName* } [phase { 1 | 2 }]

- all—Reinitializes all SAs
- state—Reinitializes SAs on tunnels that are in a specific state
- *tunnelState*—State of tunnel, up, down, not-present
- tunnel—Specifies that an SA on a specific tunnel is to be reinitialized
- *tunnelName*—Name of tunnel
- phase—Specifies one of the following types of tunnel to be reinitialized:
  - 1—ISAKMP/IKE tunnels
  - 2—IPSec tunnels

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipsec crl

Description Controls how the router checks certificate revocation lists (CRLs) when determining whether to accept a peer's certificates. The **no** version restores the default setting.

NOTE: This command is replacing the **ike crl** command. The **ike crl** command may be removed completely in a future release.

Syntax ipsec crl { ignored | optional | required }

no ipsec crl

- ignored—Specifies that the router will not try to find or use CRLs
- optional—Specifies that the router will try to find a CRL. If a CRL is found, the peer certificate must not appear in the CRL. If no CRL is found, the peer can still authenticate; this is the default.
- required—Specifies that the router must find a valid CRL; the CRL must be current, and the peer certificate must not appear in the CRL

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipsec identity

Description Configures the identity that the router uses in certificate requests and during negotiations with its peers. The **no** version removes the identity configuration.

Syntax [no] ipsec identity

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipsec ike-policy-rule

Description Defines and prioritizes an ISAKMP/IKE policy. ISAKMP/IKE policies define parameters to be used during ISAKMP/IKE negotiation. You can have up to 10 ISAKMP/IKE policies per router. The **no** version removes a policy. If you do not include a priority number with the **no** version, the software removes all ISAKMP/IKE policies.

NOTE: This command is replacing the **ipsec isakmp-policy-rule** command. The **ipsec isakmp-policy-rule** command may be removed completely in a future release.

Syntax ipsec ike-policy-rule *priority*

no ipsec ike-policy-rule [*priority*]

- *priority*—Identifies and prioritizes the ISAKMP/IKE policy; in the range 1 to 10000, with 1 having the highest priority

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipsec isakmp-policy-rule

Description Defines and prioritizes an ISAKMP/IKE policy. ISAKMP/IKE policies define parameters to be used during ISAKMP/IKE negotiation. You can have up to 10 ISAKMP/IKE policies per router. The **no** version removes a policy. If you do not include a priority number with the **no** version, the software removes all ISAKMP/IKE policies.

NOTE: This command has been replaced by the **ipsec ike-policy-rule** command and may be removed completely in a future release.

Syntax ipsec isakmp-policy-rule *priority*

no ipsec isakmp-policy-rule [*priority*]

- *priority*—Identifies and prioritizes the ISAKMP/IKE policy; in the range 1–10000, with 1 having the highest priority

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipsec key generate

Description Generates RSA key pairs. Specify the length of the key in bits, either 1024 or 2048. There is no **no** version. To remove a key pair, use the **ipsec key zeroize** command.

Syntax ipsec key generate rsa { 1024 | 2048 }

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipsec key manual pre-share

Description Specifies a preshared key for a remote peer, indexed by remote IP or remote identity. It can also specify a preshared key which is indexed by the local ip / remote IP pair for use in specific pairings or in group preshared keys (remote is wildcard 0.0.0.0).

Manually configured keys are used during the tunnel establishment phase when the ISAKMP/IKE policy specifies preshared key authentication.

You can identify the remote peer by either IP address or fully qualified domain name (FQDN). The **no** version deletes a preshared key.

NOTE: You must enter this command in the virtual router context where the IP address or FQDN of the peer is defined.

Syntax [no] ipsec key manual pre-share { *ipAddress* | ip address *ipAddress* | identity *fqdn* | local-ip-address *localIpAddress* [remote-ip-address *remoteIpAddress*] }

- *ipAddress*—Address of the peer for which the key can be used
- *fqdn*—Fully qualified domain name of the peer for which the key can be used; a maximum of 80 characters
- *localIpAddress*—Address of the local peer for which the key can be used
- *remoteIpAddress*—Address of the remote peer for which the key can be used

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
local-ip-address and **remote-ip-address** keywords added in JUNOSe Release 7.3.0.
localIpAddress and *remoteIpAddress* variables added in JUNOSe Release 7.3.0.

ipsec key pubkey-chain rsa

Description Enables you to configure the public key for a remote peer with which you want to establish IKE SAs. This command accesses IPSec Peer Public Key Configuration mode, from which you can enter the peer public key data without the need for a digital certificate. Public keys are used during the tunnel establishment phase when the ISAKMP/IKE policy specifies RSA digital signature authentication. The **no** version removes the peer public key from the router.

Syntax [no] ipsec key pubkey-chain rsa { address *ipAddress* | name *identityString* }

- *ipAddress*—IP address of the peer for which the public key can be used, in 32-bit dotted decimal format (for example, 192.168.32.2)
- *identityString*—Identity of the remote peer for which the public key can be used, either in fully qualified domain name (FQDN) format (for example, group003.customer535.isp.net) or in FQDN format preceded by an optional *user@* specification (for example, tsmith@group003.customer535.isp.net); maximum of 80 characters

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

ipsec key zeroize

Description Deletes RSA key pairs. There is no **no** version.

Syntax ipsec key zeroize { rsa | pre-share | all }

- rsa—Removes the RSA key pair from the router
- pre-share—Removes all preshared keys from the router
- all—Removes all keys within the VR context from the router

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipsec lifetime

Description Specifies the default lifetime in volume of traffic or seconds. The default lifetime applies to secure tunnels that do not have a tunnel lifetime defined. When either the volume of traffic or number of seconds limit is reached, IPSec renegotiates the SA. The **no** version restores the default values.

Syntax [no] ipsec lifetime { kilobytes *kilobytes* | seconds *seconds* }

- *kilobytes*—Volume of traffic in kilobytes that can pass between IPSec peers before the SA expires; in the range 102400–4294967295; default value is 4294967295 kilobytes; a setting of zero turns off the kilobyte lifetime
- *seconds*—Number of seconds an SA lives before expiring; in the range 7200–4294967295; default value is 28800 seconds (8 hours)

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipsec local-endpoint

Description Defines a default local endpoint used for ISAKMP/IKE negotiations and all IPSec tunnels for a transport virtual router. The **no** version restores the default settings of the local endpoint.

Syntax [no] ipsec local-endpoint *ipAddress* transport-virtual-router *transportVRName*

- *ipAddress*—IP address to use as the local endpoint
- *transportVRName*—Name of transport virtual router in which the IP address is defined

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipsec option dpd

Description Enables IPSec dead peer detection (DPD) for the current virtual router. With DPD enabled, the router detects when connectivity between the router and an IPSec peer has been terminated. The router then sets the status for the tunnel and the upper layer interfaces to down, which enables routing protocols to take alternate routes. Also, administrators can then take corrective action. The **no** version restores the default DPD setting, disabled.

Syntax [no] ipsec option dpd

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipsec option nat-t

Description Enables IPSec Network Address Translation Traversal (NAT-T) for the current virtual router. With NAT-T enabled, IPSec traffic flows transparently through a NAT device, thereby allowing one or more remote hosts located behind the NAT device to use secure L2TP/IPSec tunnels to access the router. The **ipsec option nat-t** command affects only IKE SAs negotiated on this virtual router after the command is issued; it has no effect on previously negotiated IKE SAs. The **no** version disables NAT-T for the current virtual router. The **default** version restores the default NAT-T setting, enabled.

Syntax [no | default] ipsec option nat-t

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipsec option tx-invalid-cookie

Description Enables transmission of invalid cookie notification for the current virtual router (transport VR). With invalid cookie notification enabled, the router signals to an ISAKMP peer when it does not recognize an IKE phase 1 message received from the peer, The **no** version restores the default setting, disabled.

Syntax [no] ipsec option tx-invalid-cookie

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0

ipsec transform-set

Description Creates a transform set. Transform sets used for manually configured tunnels can have only one transform. Transform sets used for signaled tunnels can have up to six transforms. Transforms are numbered in a priority sequence in the order in which you enter them. Each transform provides a different combination of data authentication and confidentiality. The **no** version deletes the transform set.

Syntax ipsec transform-set *transformSetName transform0*
[*transform1* [*transform2* [*transform3* [*transform4* [*transform5*]]]]]

no ipsec transform-set *transformSetName*

- *transformSetName*—Name of the transform set
- *transform0* through *transform5*—AH or ESP transform; use the online Help to view available transforms

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipsec transport profile

Description Creates or configures a transport profile for IPSec and accesses the IPSec Transport Profile Configuration mode. The **no** version deletes the transport profile.

Syntax [no] ipsec transport profile { *profileName* [[virtual-router *vrName*] ip address *ipAddress*] | [*virtual-router vrName*] ip address *ipAddress* }

no ipsec transport profile { *profileName* | [virtual-router *vrName*] ip address *ipAddress* }

- *profileName*—Name of the transport profile
- *vrName*—Name of the VR on which you want to create the profile. If you do not specify a virtual router, the current virtual router context is used
- *ipAddress*—Remote endpoint for the IPSec transport connection. You can enter a single IP address or the wildcard address of 0.0.0.0. If you use the wildcard address, the profile accepts any remote client connection, which is a typical scenario for secure remote access.

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipsec tunnel profile

Description Creates or configures a tunnel profile for IPSec and accesses the IPSec Tunnel Profile Configuration mode (config-ipsec-tunnel-profile). The **no** version deletes the tunnel profile.

Syntax ipsec tunnel profile *profileName* [virtual-router *vrName*]

no ipsec tunnel profile *profileName*

- *profileName*—Name of the tunnel profile
- *vrName*—Name of the VR on which you want to create the profile. If you do not specify a virtual router, the current virtual router context is used

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

ipv6

Description Enables an IPv6 instance on a router that does not already have an explicit IPv6 address. Normally, performing any IPv6 configuration automatically enables IPv6 on the interface. The **no** version disables IPv6 on the router.

NOTE: Disabling IPv6 on the router disables all IPv6 unicast routing protocols.

Syntax [no] ipv6

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 access-list

Description Defines an IPv6 access list. The extended access list enables you to specify a destination address or host, precedence, and type of service. Imposes an implicit last rule of "deny ip any any" to deny all routes that do not match previous rules in the access list. The **no** version removes the IPv6 access list, the specified entry in an access list, or the log for a specified entry.

Syntax Extended IPv6 access list:

ipv6 access-list *accessListName* { permit | deny } { *srcIPv6Prefix* | host *srcIPHost* | any } { *dstIPv6Prefix* | host *dstIPHost* | any } [log]

no ipv6 access-list *accessListName* [{ permit | deny } { *srcIPv6Prefix* | host *srcIPv6Host* | any } { *dstIPv6Prefix* | host *dstIPv6Host* | any } [log]]

- *accessListName*—String of up to 32 alphanumeric characters
- permit—Permits access if the conditions are matched
- deny—Denies access if the conditions are matched
- *srcIPv6Prefix*—Source IPv6 address and mask length from which the packet is being sent
- *srcIPv6Host*—Source host IPv6 address; assumes a mask length of 128
- any—Creates an address of :: with a mask length of 0
- *dstIPv6Prefix*—Destination IP address and mask length
- *dstIPv6Host*—Destination host IPv6 address to which the packet is being sent
- log—Logs an Info event into the ipAccessList log whenever the access-list rule is matched

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 access-route table-map

Description Filters access routes before an access list adds them to the routing table. The **no** version deletes the table map.

Syntax ipv6 access-route [vrf *vrfName*] table-map *mapName*

no ipv6 access-route [vrf *vrfName*] table-map [*mapName*]

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *mapName*—Name of the table map that you want the router to use

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
vrf keyword and *vrfName* variable added in JUNOSe Release 7.2.0.

ipv6 address

Description Assigns an IPv6 address (or network) to an interface and enables IPv6 processing on that interface. The **no** version deletes the association from the interface.

NOTE: The link-local address for an interface is automatically configured when IPv6 is enabled on the interface.

Syntax [no] ipv6 address *ipv6Prefix* [eui-64]

[no] ipv6 address [*ipv6Address maskLength* [eui-64]]

- *ipv6Prefix*—Prefix that defines the IPv6 interface or network in the format *ipv6Address/length*, where
  - *ipv6Address*—Base IPv6 address of the network route that you want to filter (for example, ::ffff:a:b:c:d)
  - *length*—Length of the network prefix; number of bits masking base address to produce address to be matched
- *ipv6Address*—Base IPv6 address of the network route that you want to filter (for example, ::ffff:a:b:c:d); the *ipv6Address* must appear in hexadecimal format using 16-bit values between colons. Refer to *RFC 2373—IP Version 6 Addressing Architecture (July 1998)* for details.
- *maskLength*—Length of the IPv6 mask. A decimal value that indicates how many of the high-order contiguous bits of the address comprise the prefix (the network portion of the address).
- eui-64—Specifies the use of the eui-64 interface identifier

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 block-multicast-sources

Description Prevents mroute creation by blocking multicast traffic that has a scope larger than link-local (for example, global). The **no** version restores the default behavior of creating mroutes upon receiving multicast packets.

Syntax [no] ipv6 block-multicast-sources

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 classifier-list

Description Creates or modifies an IPv6 classifier control list. The **no** version removes the classifier control list.

Syntax ipv6 classifier-list *classifierName* [traffic-class *trafficClassName*]
[color { green | yellow | red }] [user-packet-class *userPacketClassValue*]
[source-route-class *routeClassValue*] [destination-route-class *routeClassValue*]
[local { true | false }]
[source-address *ipv6Prefix* | source-host *ipv6Address*]
[destination-address *ipv6Prefix* | destination-host *ipv6Address*]
[precedence *precNum* | dsfield *dsFieldNum* | tcfield *tcFieldNum*]
[*protocol* [*protocolQualifier*]]

no ipv6 classifier-list *classifierName* [*classifierNumber*]

- *classifierName*—Name of the classifier control list entry
- *trafficClassName*—Name of the traffic class to match
- green—Matches packet color to green, indicating a low drop preference
- yellow—Matches packet color to yellow, indicating a medium drop preference
- red—Matches packet color to red, indicating a high drop preference
- *userPacketClassValue*—User packet value to match
- *routeClassValue*—Value of the source or destination route-class; in the range 0–255
- local—Specifies traffic destined for this interface
  - true—Matches packets that are locally destined
  - false—Matches packets that are not locally destined
- *ipv6Prefix*—Prefix that defines the IPv6 interface or network
- *ipv6Address*—Base IPv6 address of the network route
- *precNum*—Upper three bits of the traffic class byte; in the range 0–7
- *dsFieldNum*—Upper six bits of the traffic class byte; in the range 0–63
- *tcFieldNum*—Whole eight bits of the traffic class byte; in the range 0–255
- *protocol*—Protocol type to match; **tcp**, **udp**, **icmpv6**, or protocol number in the range 0–255

- *protocolQualifier*—Specifies the following protocol-specific parameters:

  For TCP and UDP:

  - source-port or destination-port—Specifies that a source or destination port is matched
  - *portOperator*—One of the following classifier parameters. See *JUNOSe Policy Management Configuration Guide, Chapter 2, Creating Classifier Control Lists for Policies*, for details.
    - lt—Less than
    - gt—Greater than
    - eq—Equal to
    - ne—Not equal
    - range—Range of port numbers
  - *portNumber*—Port number of the source or destination port

  For TCP only:

  - tcpFlag; a logic equation that specifies flag bit values; ! means logical NOT and & means logical AND; use any of the following flag names:
    - ack—0x10
    - fin—0x01
    - psh—0x08
    - rst—0x04
    - syn—0x02
    - urg—0x20

  For ICMPv6:

  - *icmpType*—ICMP message type
  - *icmpCode*—ICMP message code
- *classifierNumber*—Index of the classifier control list entry to be deleted

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NOTE: The **local-input** keyword for the **ipv6 policy** command is deprecated, and may be completely removed in a future release. The keyword should be removed from scripts.

You should recreate any local input policies using the **ipv6 classifier-list local true** command and attaching the policies using the **ipv6 policy secondary-input** command.

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Creating or Modifying Classifier Control Lists for IPv6 Policy Lists

ipv6 description

Description Assigns a text description or an alias to an IPv6 interface or subinterface. Use the **show ipv6 interface** command to display the text description. The **no** version removes the description or alias.

Syntax ipv6 description *name*

no ipv6 description

- *name*—Name for the IP interface; string of up to 256 characters

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 dhcpv6-local delegated-prefix

Description Specifies the IPv6 prefix and lifetime that is to be delegated, when requested, to the DHCPv6 client on this interface by the DHCPv6 local server. This lifetime overrides the default lifetime that is set in Global Configuration mode. If no lifetime is specified, the default lifetime is used. The **no** version removes the IPv6 prefix from the interface.

Syntax ipv6 dhcpv6-local delegated-prefix *ipv6Prefix*
[lifetime { *days* [*hours* [*minutes* [*seconds*]]] | infinite }]

no ipv6 dhcpv6-local delegated-prefix

- *ipv6Prefix*—Prefix that defines the IPv6 interface
- *days*—Number of days in the lifetime; in the range 0–32768
- *hours*—Number of hours in the lifetime; in the range 0–24
- *minutes*—Number of minutes in the lifetime; in the range 0–60
- *seconds*—Number of seconds in the lifetime; in the range 0–60
- infinite—Assigns a lifetime that does not expire

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 dhcpv6-local dns-domain-search

Description Adds the specified DNS domain name to the domain search list. The **no** version removes the specified domain name from the search list.

Syntax [no] ipv6 dhcpv6-local dns-domain-search *dnsDomainName*

- *dnsDomainName*—Name of DNS domain name

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 dhcpv6-local dns-server

Description Assigns the specified DNS server to all DHCPv6 clients in the current virtual router. The **no** version removes the specified DNS server.

Syntax [no] ipv6 dhcpv6-local dns-server *ipv6Address*

- *ipv6Address*—IPv6 address of the DNS server

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 dhcpv6-local prefix-lifetime

Description Sets the default lifetime for which a prefix delegated by this DHCPv6 local server is valid. This default is overridden by the interface-specific lifetime. The **no** version restores the default lifetime to 1 day.

Syntax ipv6 dhcpv6-local prefix-lifetime { *days* [*hours* [*minutes* [*seconds*]]] | infinite }

no ipv6 dhcpv6-local prefix-lifetime

- *days*—Number of days in the lifetime; in the range 0–32768
- *hours*—Number of hours in the lifetime; in the range 0–24
- *minutes*—Number of minutes in the lifetime; in the range 0–60
- *seconds*—Number of seconds in the lifetime; in the range 0–60
- infinite—Assigns a lifetime that does not expire

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 dos-protection-group

Description Attaches an IPv6 denial of service (DoS) protection group to an interface. The **no** version removes the attachment of the DoS protection group from the interface.

Syntax ipv6 dos-protection-group *groupName*

no ipv6 dos-protection-group

- *groupName*—Name of the DoS protection group; string of up to 31 alphanumeric characters

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

ipv6 enable

Description Enables IPv6 processing on an interface that does not already have an explicit IPv6 address. The **no** version disables IPv6 processing on the interface.

Syntax [no] ipv6 enable

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 hop-limit

Description Specifies the maximum number of hops that the router can use in router advertisements and all IPv6 packets. The **no** version sets the hop limit for IPv6 packets to 255 hops and router advertisements to zero [0] hops (or "unspecified").

Syntax ipv6 hop-limit [vrf *vrfName*] *hopLimit*

no ipv6 hop-limit [vrf *vrfName*]

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *hopLimit*—Maximum number of hops (from 1 to 255) that the router can use in router advertisements and in all IPv6 packets; the original default value is 64 hops

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
vrf keyword and *vrfName* variable added in JUNOSe Release 7.2.0.

ipv6-local-interface

Description Maps a domain name to a loopback interface. The **no** version deletes the mapping to the user domain name.

Syntax ipv6-local-interface { loopback *interfaceSpecifier* | *ipv6Prefix* }

no ipv6-local-interface

- *interfaceSpecifier*—Particular loopback interface
- *ipv6Prefix*—Prefix that defines the IPv6 interface in the format *ipv6Address*/*length*, where
  - *ipv6Address*—Base IPv6 address of the loopback interface (for example, ::ffff:a:b:c:d)
  - *length*—Length of the network prefix; number of bits masking base address to produce address to be matched

Mode Domain Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld

Description Enables MLD on an interface, and sets the MLD version to MLDv2. The **no** version disables MLD on an interface.

Syntax [no] ipv6 mld

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld access-group

Description Restricts hosts on this subnet to joining multicast groups on the specified IPv6 access list. The **no** version removes the association with the specified access list and allows hosts on the subnetwork to join any multicast group.

Syntax ipv6 mld access-group *accessListName*

no ipv6 mld access-group

- *accessListName*—Name of the access list; a string of up to 32 characters

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld access-source-group

Description Restricts hosts on this subnetwork to membership in those source groups (also known as "channels") permitted by the specified IPv6 access list. The **no** version removes any access list restriction.

Syntax ipv6 mld access-source-group *accessListName*

no ipv6 mld access-source-group

- *accessListName*—Name of the access list; a string of up to 32 characters

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld apply-oif-map

Description Applies the specified outgoing interface (OIF) map to the current interface. The **no** version removes the outgoing interface map from the interface.

Syntax ipv6 mld apply-oif-map *mapName*

no ipv6 mld apply-oif-map

- *mapName*—Name of the OIF map

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld explicit-tracking

Description Enables explicit host tracking for IPv6 MLD interfaces. The **no** version disables explicit host tracking on the interface or with the **disable-if-mld-v1-detected** keyword reverts to the default explicit host tracking.

Syntax [no] ipv6 mld explicit-tracking [disable-if-mld-v1-detected]

- disable-if-mld-v1-detected—Disables explicit host tracking if MLD V1 hosts detected on MLD V2 interfaces

Mode Interface Configuration, Profile Configuration

Release Information Command introduced in JUNOSe Release 8.2.0.

ipv6 mld group limit

Description Limits the number of MLD groups that an interface can accept. The **no** version restores the default situation, in which there is no limit to the number of MLD groups that the interface accepts.

Syntax ipv6 mld group limit *groupLimit*

no ipv6 mld group limit

- *groupLimit*—Maximum number of MLD groups that an interface can accept, in the range 0–64,000

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld immediate-leave

Description Removes an interface immediately when the router receives a leave group membership message from the host associated with this interface. The **no** version restores the default situation, in which the router issues query messages to multicast groups and removes an interface if the associated host does not return a group membership report within a certain length of time.

CAUTION: Issue this command only on MLDv1 interfaces to which one MLD client is connected. Do not issue this command to interfaces to which more than one MLD client is connected.

Syntax [no] ipv6 mld immediate-leave

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld last-member-query-interval

Description Specifies in tenths of a second the maximum time the router waits for a response after sending a last member query. The router sends a last member query when it receives an MLDv1 leave message or an MLDv2 state change report. The **no** version restores the default value, 10 tenths of a second (1 second).

Syntax ipv6 mld last-member-query-interval *tenthsOfaSecond*

no ipv6 mld last-member-query-interval

- *tenthsOfaSecond*—Time interval to wait after sending out of a last member query in the range 1–254 tenths of a second. Using a lower value allows members to leave groups more quickly.

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld oif-map

Description Creates an outgoing interface (OIF) map. The **no** version removes an outgoing interface map attribute or the entire outgoing interface map.

Syntax [no] ipv6 mld oif-map *mapName* { *interfaceType interfaceSpecifier* | self } [*groupPrefix* [*sourcePrefix*]]

- *mapName*—Name of the OIF map
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- self—Specifies that the multicast outgoing interface is the same as IGMP join interface
- *groupPrefix*—Group prefix in the form *ipv6Address/maskLength*
- *sourcePrefix*—Source prefix in the form *ipv6Address/maskLength*

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld-proxy

Description Enables MLD proxy on an interface and specifies the version. Version 2 is enabled by default. The **no** version disables MLD proxy for an interface.

Syntax [no] ipv6 mld-proxy

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld-proxy unsolicited-report-interval

Description Specifies how often the upstream interface should transmit unsolicited reports. This command has no effect on interfaces other than the upstream value. The **no** version transmits unsolicited reports using the default value, 100-tenths of a second (10 seconds).

NOTE: Issue this command only on the upstream interface. Otherwise, this command will have no effect.

Syntax ipv6 mld-proxy unsolicited-report-interval *tenths-of-a-seconds*

no ipv6 mld-proxy unsolicited-report-interval

- *tenths-of-a-seconds*—Time interval at which the interface transmits unsolicited reports

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld-proxy version

Description Sets the MLD proxy version for the interface. The **no** version restores the default value, MLDv2.

Syntax ipv6 mld-proxy version { 1 | 2 }

no ipv6 mld-proxy version

- 1—Sets MLD version 1
- 2—Sets MLD version 2

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld querier-timeout

Description Sets the time that the interface waits before declaring itself as the querier. The **no** version restores the default value, twice the query interval.

Syntax ipv6 mld querier-timeout *seconds*

no ipv6 mld querier-timeout

- *seconds*—Time interval between the last query from the previous router and the first query from this interface

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld query-interval

Description Sets how often the router sends MLD host-query packets from this interface. The **no** version restores the default value, 125 seconds.

Syntax ipv6 mld query-interval *seconds*

no ipv6 mld query-interval

- *seconds*—Polling interval in the range 0–65535 seconds

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld query-max-response-time

Description Specifies the period in tenths of a second during which the host is expected to respond to an MLD query. MLD version 1 includes this value in MLD query messages sent out on the interface. The **no** version restores the default value, 10 tenths of a second (1 second).

Syntax ipv6 mld query-max-response-time *tenthsOfaSecond*

no ipv6 mld query-max-response-time

- *tenthsOfaSecond*—Time interval between receipt of an MLD query and the response; in the range 1–254 tenths of a second.

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld robustness

Description Specifies the number of times that the router sends MLD group-specific queries before declaring a group to no longer have any members on an interface. The **no** version restores the default value, 2.

Syntax ipv6 mld robustness *numberOfMessages*

no ipv6 mld robustness

- *numberOfMessages*—Number of times that the router sends MLD group-specific queries in the range 1–4

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld ssm-map enable

Description Enables SSM mapping on the router. SSM mapping statically assigns sources to MLDv1 groups. You must use SSM mapping for MLDv1 hosts to interoperate with PIM SSM. SSM mapping allows the router to use a statically configured list to translate <*,G> memberships to <S,G> memberships. The **no** version disables the SSM map.

NOTE: To operate correctly, the static source addresses configured with the **ipv6 mld ssm-map static** command must fall within the configured PIM SSM range.

Syntax [no] ipv6 mld ssm-map enable

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld ssm-map static

Description Specifies an access list and source address for use in SSM mapping. SSM mapping statically assigns sources to MLDv1 groups. You must use SSM mapping for MLDv1 hosts to interoperate with PIM SSM. SSM mapping allows the router to use a statically configured list to translate <*,G> memberships to <S,G> memberships. The **no** version removes the SSM map association.

NOTE: To operate correctly, the static source addresses configured with the **ipv6 mld ssm-map static** command must fall within the configured PIM SSM range.

Syntax [no] ipv6 mld ssm-map static *accessListName sourceAddress*

- *accessListName*—Name of the access control list
- *sourceAddress*—Address of the source

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld static-exclude

Description Specifies that an interface not handle multicast traffic for one or more (S,G) combinations. The **no** version removes the (S,G) exclusion from the interface.

Syntax [no] ipv6 mld static-exclude *sourceAddress groupAddress*

- *sourceAddress*—Address of the source
- *groupAddress*—Address of the group

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld static-group

Description Assigns an interface to handle all multicast traffic for a group. The interface sets no timers for this group. The **no** version removes the group from the interface.

Syntax [no] ipv6 mld static-group *groupAddress*

- *groupAddress*—Address of the group

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld static-include

Description Assigns an interface to handle multicast traffic for one or more (S,G) combinations. The **no** version removes the (S,G) association from the interface.

Syntax [no] ipv6 mld static-include *sourceAddress groupAddress*

- *sourceAddress*—Address of the source
- *groupAddress*—Address of the group

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mld version

Description Sets the MLD version for the interface. The **no** version restores the default value, MLDv1.

Syntax ipv6 mld version { 1 | 2 | passive }

no ipv6 mld version

- 1—Sets MLD version 1
- 2—Sets MLD version 2
- passive—Configures a mapped OIF as a passive interface with only multicast-data-forwarding capability

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 mtu

Description Sets the maximum transmission unit size of IPv6 packets sent on an interface. The **no** version restores the default value.

Syntax ipv6 mtu [*mtuSize*]

no ipv6 mtu

- *mtuSize*—Maximum number of packet transmissions permitted on an interface; in the range 160–10240; default value is 0, which means that the router takes the value from a lower protocol layer

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 multicast admission-bandwidth-limit

Description Specifies multicast admission bandwidth (in kilobits per second) for a given interface. The **no** version removes the admission bandwidth limit.

Syntax [no] ipv6 multicast admission-bandwidth-limit *limitValue*

- *limitValue*—Maximum admission bandwidth (in kilobits per second) permitted on an interface; default value is 0, which disables the limit

Mode Interface Configuration, Profile Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

ipv6 multicast ioa-packet-replication

Description Enables IPv6 hardware multicast packet replication on port 8 of a high-density Ethernet I/O module or IOA. The **no** version disables hardware multicast packet replication.

Syntax ipv6 multicast ioa-packet-replication *interfaceType interfaceSpecifier*

no ipv6 multicast ioa-packet-replication

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

ipv6 multicast-routing

Description Enables IPv6 multicast routing on the router. The **no** version disables IPv6 multicast routing on the router.

Syntax [no] ipv6 multicast-routing

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 multicast-routing bandwidth-map

Description Enables the QoS adjust function on the router. The **no** version disables the QoS adjust function on the router.

Syntax ipv6 multicast-routing bandwidth-map *routeMapName*

no ipv6 multicast-routing bandwidth-map

- *routeMapName*—Name of the route map you want to use for the bandwidth map

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

ipv6 multicast-routing disable-rpf-check

Description Disables RPF checks for the (S,G) pairs in the specified access list. The **no** version restores the default situation, in which the router performs RPF checks for all (S,G) pairs.

Syntax ipv6 multicast-routing disable-rpf-check *accessListName*

no ipv6 multicast-routing disable-rpf-check

- *accessListName*—Name of the IPv6 access list that specifies the (S,G) pairs

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 multicast-routing permanent-mroute

Description Specifies that newly created mroutes that match the specified access-list do not get timed out. The **no** version of this command prevents any new mroutes from becoming permanent. However, it does not remove any existing permanent mroutes. To remove existing permanent mroutes, use the **clear ipv6 mroute** command.

Syntax ipv6 multicast-routing permanent-mroute *accessListName*

no ipv6 multicast-routing permanent-mroute

- *accessListName*—Name of the IPv6 access list that specifies the mroutes

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 nd

Description Enables the IPv6 Neighbor Discovery process on an interface. The **no** version disables the Neighbor Discovery process.

Syntax [no] ipv6 nd

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
Profile Configuration mode added in JUNOSe Release 9.0.0.

ipv6 nd active-solicitations

Description Specifies that the router can actively solicit neighbors that become stale (inactive). The **no** version disables the ability to actively solicit neighbors that become stale.

Syntax [no] ipv6 nd active-solicitations

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 nd dad attempts

Description Specifies the number of consecutive neighbor solicitation messages that an interface sends while the router performs duplicate address detection (DAD) on the unicast IPv6 addresses of the interface. The **no** version returns the number of neighbor solicitation messages to its default value (one message without any follow-up messages).

Syntax ipv6 nd dad attempts *numberOfAttempts*

no ipv6 nd dad attempts

- *numberOfAttempts*—Number of neighbor solicitation messages that you want the router to transmit

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 nd managed-config-flag

Description Sets the "managed address configuration" flag in IPv6 router advertisements. The **no** version clears the flag from IPv6 router advertisements.

Syntax [no] ipv6 nd managed-config-flag

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
Profile Configuration mode added in JUNOSe Release 9.0.0.

ipv6 nd ns-interval

Description Specifies the interval between IPv6 neighbor solicitation retransmissions on an interface. The **no** version returns the interval between neighbor solicitation retransmission to its default value (zero [0] milliseconds for router advertisements and 1000 milliseconds for Neighbor Discovery activity of the E-series router).

Syntax ipv6 nd ns-interval *milliseconds*

no ipv6 nd ns-interval

- *milliseconds*—Interval between IPv6 neighbor solicit transmissions

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 nd other-config-flag

Description Sets the "other stateful configuration" flag in IPv6 router advertisements. The **no** version clears the flag from IPv6 router advertisements.

Syntax [no] ipv6 nd other-config-flag

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
Profile Configuration mode added in JUNOSe Release 9.0.0.

ipv6 nd prefix-advertisement

Description Specifies which IPv6 prefixes the router includes in IPv6 router advertisements. In Profile Configuration mode, you can configure a single prefix. The **no** version removes any prefixes from the IPv6 routing advertisements.

Syntax ipv6 nd prefix-advertisement *ipv6Prefix/ipv6PrefixLength validLifetime preferredLifetime* [onlink] [autoconfig]

[no] ipv6 nd prefix-advertisement [*ipv6Prefix/ipv6PrefixLength*]

- *ipv6Prefix*—IPv6 network number to include in router advertisements
- *ipv6PrefixLength*—Length of the IPv6 prefix; a decimal value that indicates how many of the higher-order contiguous bits of the IPv6 address comprise the prefix (the network portion of the IPv6 address). A slash (/) must precede this value.

NOTE: When used in an IPv6 profile, the *ipv6PrefixLength* must be set to a length of 64.

- *validLifetime*—Amount of time in seconds that the router can advertise the specified IPv6 prefix as valid; in the range 0–4294967295
- *preferredLifetime*—Amount of time in seconds that the router can advertise the specified IPv6 prefix as preferred; in the range 0–4294967295
- onlink—Indicates that the specified prefix is assigned to the link
- autoconfig—Indicates that local host links can use the specified prefix for IPv6 autoconfiguration

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
Profile Configuration mode added in JUNOSe Release 9.0.0.

ipv6 nd proxy

Description Enables IPv6 Neighbor Discovery proxy. The **no** version disables IPv6 Neighbor Discovery proxy.

Syntax [no] ipv6 nd proxy

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 nd ra-interval

Description Specifies the interval between IPv6 router advertisement retransmissions on an interface. The **no** version restores the default interval, 200 seconds.

Syntax ipv6 nd ra-interval *seconds*

no ipv6 nd ra-interval

- *seconds*—Number of seconds between IPv6 advertisement retransmissions; in the range 3–1800

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
Profile Configuration mode added in JUNOSe Release 9.0.0.

ipv6 nd ra-lifetime

Description Specifies the router lifetime value in IPv6 router advertisements on an interface. The router lifetime value is the amount of time the router is considered the default router on this interface. The **no** version restores the default router lifetime value, 1800 seconds.

Syntax ipv6 nd ra-lifetime *seconds*

no ipv6 nd ra-lifetime

- *seconds*—Number of seconds this router is considered the default router on this interface; in the range 0–1800. A value of zero (0) indicates that this router is not a default router on this interface. Nonzero values indicate that the router is a default router on this interface. Nonzero values should not be less than the router advertisement interval.

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
Profile Configuration mode added in JUNOSe Release 9.0.0.

ipv6 nd reachable-time

Description Specifies the amount of time that the E-series router can reach a remote IPv6 node after some reachability confirmation event has occurred. The **no** version restores the default value 0 milliseconds for router advertisements and 3,600,000 milliseconds (1 hour) for Neighbor Discovery activity of the E-series router.

Syntax ipv6 nd reachable-time { *milliseconds* | *hours minutes seconds* }

no ipv6 nd reachable-time

- *milliseconds*—Amount of time, in the range 0–21600000 milliseconds, that the E-series router can reach a remote node after some reachability confirmation event has occurred
- *hours minutes seconds*—Amount of time, in the range 0 hours 0 minutes 0 seconds – 6 hours 0 minutes 0 seconds, that the E-series router can reach a remote node after some reachability confirmation event has occurred; this specification is not supported in Profile Configuration mode

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
Profile Configuration mode added in JUNOSe Release 9.0.0.

ipv6 nd suppress-ra

Description Suppresses IPv6 router advertisement transmissions on a local area network (Ethernet) interface. The **no** version reenables the sending of IPv6 router advertisement transmissions on the LAN (Ethernet) interface.

Syntax [no] ipv6 nd suppress-ra

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
Profile Configuration mode added in JUNOSe Release 9.0.0.

ipv6 nd suppress-ra-source-link-layer

Description Suppresses the source link-layer option in IPv6 router advertisement transmissions. This action forces neighbors to solicit the router link layer explicitly, and may prove necessary when enabling inbound load sharing across multiple link-layer addresses. The **no** version reenables the sending of the source link-layer option in IPv6 router advertisement transmissions.

Syntax [no] ipv6 nd suppress-ra-source-link-layer

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 neighbor

Description Specifies a static entry in the IPv6 Neighbor Discovery cache. The **no** version removes the static entry from the IPv6 Neighbor Discovery cache.

Syntax ipv6 neighbor [vrf *vrfName*] *ipv6Address interfaceType interfaceSpecifier hardwareAddress*

no ipv6 neighbor [vrf *vrfName*] *ipv6Address interfaceType interfaceSpecifier*

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *ipv6Address*—IPv6 address that corresponds to the local data-link address
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *hardwareAddress*—Local, 48-bit data-link address

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
vrf keyword and *vrfName* variable added in JUNOSe Release 7.2.0.

ipv6 ospf area

Description Creates an OSPFv3 interface under the specified area ID or moves an OSPFv3 interface from its current area to a specified area. The **no** version removes the interface from the specified area.

Syntax [no] ip ospf [*processId*] area { *areaId* | *areaIdInt* }

- *processId*—Integer in the range 1–65535
- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value 0–4294967295

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 ospf bfd-liveness-detection

Description Enables BFD (bidirectional forwarding detection) on an interface running OSPFv3 and defines BFD values to be negotiated between OSPFv3 neighbors for detection of IPv6 data path failures. The **no** version disables BFD on the OSPFv3 interface.

Syntax ipv6 ospf bfd-liveness-detection [minimum-interval *minInterval* |
[minimum-receive-interval *minRecInterval*]
[minimum-transmit-interval *minTransInterval*]] [multiplier *multValue*]

no ipv6 ospf bfd-liveness-detection

- *minInterval*—Minimum proposed transmit interval and required receive interval for BFD control packets; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minRecInterval*—Minimum interval at which the local peer must receive BFD control packets sent by the remote peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minTransInterval*—Minimum proposed interval between BFD control packets sent by the local peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *multValue*—Detection multiplier value that the remote peer router multiplies by the local peer's negotiated transmit interval to determine the remote peer's BFD liveness detection interval; equal to the number of BFD packets that can be missed before the BFD session is declared down; number in the range 1–255; default value is 3

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

ipv6 ospf cost

Description Specifies a cost metric for an interface. Used in the calculation of the SPF routing table. The **no** version resets the path cost to the default.

Syntax ipv6 ospf [*processId*] cost *intfCost*

no ipv6 ospf [*processId*] cost

- *processId*—Integer in the range 1–65535
- *intfCost*—Link-state metric cost; number in the range 0–65535; default value is 10

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 ospf dead-interval

Description Sets the time period during which the router's neighbors do not see hello packets before they declare the router to be down. The **no** version resets the dead interval to its default.

Syntax ipv6 ospf [*processId*] dead-interval *deadInterval*

no ipv6 ospf [*processId*] dead-interval

- *processId*—Integer in the range 1–65535
- *deadInterval*—Number in the range 0–2147483647 seconds; default value is 40 seconds

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 ospf hello-interval

Description Specifies the interval between hello packets that the router sends on the interface. The **no** version resets the hello interval to its default.

Syntax ipv6 ospf [*processId*] hello-interval *helloInterval*

no ipv6 ospf [*processId*] hello-interval

- *processId*—Integer in the range 1–65535
- *helloInterval*—Number in the range 1–65535 seconds; default value is 10 seconds

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 ospf mtu-ignore

Description Specifies that the interface ignore the MTU size contained in the DBD packet. The interface accepts data description packets from its neighbor even if it has a different a MTU size. However, the MTU size must be less than 18000. The **no** version resets the default; that the neighbor MTU size must match the MTU size of the OSPFv3 interface from which the packet is received.

Syntax [no] ipv6 ospf [*processId*] mtu-ignore

- *processId*—Integer in the range 1–65535

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 ospf network

Description Specifies a network type (broadcast or point-to-point) for an interface. The **no** version resets the path cost to the default.

Syntax ipv6 ospf [*processId*] network { broadcast | point-to-point }

no ipv6 ospf [*processId*] network

- *processId*—Integer in the range 1–65535

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 ospf priority

Description Sets the router priority. Used in determining the designated router for the particular network. This designation applies only to multiaccess networks. Every broadcast and nonbroadcast multiaccess network has a designated router. The **no** version restores the default value.

Syntax ipv6 ospf [*processId*] priority *intfPriority*

no ipv6 ospf [*processId*] priority

- *processId*—Integer in the range 1–65535
- *intfPriority*—Priority value, an 8-bit number in the range 1–255; default value is 1

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 ospf retransmit-interval

Description Specifies the time between LSA retransmissions for the interface when an acknowledgment for the LSA is not received. The **no** version restores the default value.

Syntax ipv6 ospf [*processId*] retransmit-interval *retransInterval*

no ipv6 ospf [*processId*] retransmit-interval

- *processId*—Integer in the range 1–65535
- *retransInterval*—Number in the range 0–3600 seconds; default value is 5 seconds

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 ospf shutdown

Description Disables OSPF on an interface. The **no** version enables OSPF on the interface.

Syntax [no] ipv6 [*processId*] ospf shutdown

- *processId*—Integer in the range 1–65535

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 ospf transmit-delay

Description Sets the estimated time it takes to transmit a link-state update packet on the interface. The **no** version restores the default value.

Syntax ipv6 ospf [*processId*] transmit-delay *transmDelay*

no ipv6 ospf [*processId*] transmit-delay

- *processId*—Integer in the range 1–65535
- *transmDelay*—Link-state transmit delay, a number in the range 0–3600 seconds; default value is 1 second

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 pim bfd-liveness-detection

Description Enables BFD (bidirectional forwarding detection) on an interface running PIM and defines BFD values to be negotiated between PIM neighbors for detection of IPv6 data path failures. The **no** version disables BFD on the PIM interface.

Syntax ipv6 pim bfd-liveness-detection [minimum-interval *minInterval* |
[minimum-receive-interval *minRecInterval*]
[minimum-transmit-interval *minTransInterval*]] [multiplier *multValue*]

no ipv6 pim bfd-liveness-detection

- *minInterval*—Minimum proposed transmit interval and required receive interval for BFD control packets; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minRecInterval*—Minimum interval at which the local router must receive BFD control packets sent by its neighbors; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minTransInterval*—Minimum proposed interval between BFD control packets sent by the local router; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *multValue*—Detection multiplier value that the remote neighbor multiplies by the local router's negotiated transmit interval to determine the remote neighbor's BFD liveness detection interval; equal to the number of BFD packets that can be missed before the BFD session is declared down; number in the range 1–255; default value is 3

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.0.0.

ipv6 pim bsr-candidate

Description Defines a router as a bootstrap router (BSR) candidate. The **no** version disables the router BSR candidacy.

Syntax ipv6 pim bsr-candidate *interfaceType interfaceSpecifier* [*hashMaskLen* [*priority*]] [period *bootstrapPeriod*]

no ipv6 pim bsr-candidate

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*. The autoRP announcement messages will contain the IP address for this interface.
- *hashMaskLen*—Length in the range 1–128 bits of the hash mask length field sent in BSMs that the router originates; default value is 126 bits
- *priority*—Value in the range 0–255 of the BSR-Priority field of BSMs that the router originates; default value is 0
- *bootstrapPeriod*—Interval in the range 1–65535 seconds at which the BSR sends bootstrap messages; default value is 60 seconds

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 pim join-filter

Description Specifies an extended access list that you want this PIM router or PIM interface to use as a join filter. If an interface-level filter exists, it takes precedence over the global-level filter. The **no** version removes the filter association.

Syntax ipv6 pim join-filter *accessListName*

no ipv6 pim join-filter

- *accessListName*—Name of the access list that you want this interface to use as a PIM join filter; a string of up to 32 alphanumeric characters

Mode Global Configuration, Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 pim query-interval

Description Specifies how often the router sends PIM router query messages from this interface. The **no** version specifies the default time interval, 30 seconds.

Syntax ipv6 pim query-interval *queryTime*

no ipv6 pim query-interval

- *queryTime*—Interval in the range 0–210 seconds at which the router sends PIM router query messages from this interface

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 pim rp-address

Description Specifies a static PIM group–to–RP mapping. The **no** version clears the mapping from this interface.

Syntax [no] ipv6 pim rp-address *ipv6Address* [*ipv6AccessList*] [override]

- *ipv6Address*—IPv6 address of the router you want to designate as an RP router
- *ipv6AccessList*—Name of the IPv6 access list that specifies which multicast groups use this RP
- override—Specifies that this static RP mapping has priority over group-to-RP mappings learned by auto-RP

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 pim rp-candidate

Description Defines a router as a rendezvous point (RP) router candidate. The **no** version stops the router from being an RP candidate.

Syntax ipv6 pim rp-candidate *interfaceType interfaceSpecifier* [group-list *accessListName*] [hold-time *holdTime*] [priority *priority*] [interval *interval*]

no ipv6 pim rp-candidate *interfaceType interfaceSpecifier* [group-list *accessListName*]

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*. The autoRP announcement messages will contain the IP address for this interface.
- *accessListName*—Access-list containing the set of group prefixes supported by this C-RP. If no group-list is specified, the default value is the entire multicast address range.
- *holdTime*—Amount of time in the range 1–65535 seconds that the BSR keeps an RP in its C-RP list if the BSR does not receive a C-RP advertisement message; default value is 150 seconds
- *priority*—Priority field value in the range 0– 255 that the C-RP sends to the BSR in C-RP advertisement messages; default value is 192. In the RP election process, the RP with the lower priority value is preferred.
- *interval*—Interval in the range 1–65535 seconds at which the C-RP sends advertisement messages to the BSR; default value is 60 seconds

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 pim sparse-mode

Description Enables PIM in sparse mode on an interface. The **no** version disables PIM in sparse mode on an interface.

Syntax [no] ipv6 pim sparse-mode

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 pim spt-threshold

Description Specifies the network configuration that PIM sparse mode uses when a source starts sending multicast messages. The **no** version restores the default value, 0.

Syntax [no] ipv6 pim spt-threshold { 0 | *nonZeroInteger* | infinity } [group-list *ipv6AccessList*]

- 0—Configures PIM sparse mode to switch to an SPT when a source begins to send multicast messages
- *nonZeroInteger*—Integer in the range 1–4294967294; prevents PIM sparse mode from switching from a shared tree to an SPT
- infinity—Prevents PIM sparse mode from switching from a shared tree to an SPT
- *ipv6AccessList*—Name of the IPv6 access list that specifies the groups to which the threshold applies

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 pim ssm

Description Enables SSM and defines the SSM range of IPv6 multicast addresses. The **no** version disables SSM on the router.

Syntax ipv6 pim ssm { default | range *ipv6AccessList* }

no ipv6 pim ssm

- default—Specifies that SSM use the IANA-specified range of 232/8
- *ipv6AccessList*—Name of the IPv6 access list that specifies the range of multicast addresses you want SSM to use

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 policy

Description In Interface Configuration mode, assigns a policy list to the ingress or egress of an interface. If you enter the **ipv6 policy** command and the policy list does not exist, the router creates a policy list with no rules, the default. When a policy list does not have rules, the router inserts a default filter rule. Attaching this policy list to an interface filters all packets on that interface. You must specify the **input** or **output** keyword to assign the policy list to the ingress or egress of the interface.

In Profile Configuration mode, assigns the policy list to a profile, which then assigns the policy to an interface.

The **no** version removes the association between a policy list and an interface. In Profile Configuration mode, the **no** version removes policy reference from the profile.

Syntax ipv6 policy { input | output } *policyName*
[statistics { enabled [baseline { enabled | disabled }] [preserve | merge] | disabled [merge] } | merge]

no ipv6 policy { input | output | secondary-input } [*policyName*]

For policy lists in Profile Configuration mode:
ipv6 policy { input | output } *policyName*
[statistics { enabled | disabled }] [merge]

no ipv6 policy { input | output | secondary-input } [*policyName*]

- input—Applies policy to data arriving at this interface before a route lookup
- output—Applies policy to data leaving this interface
- secondary-input—Applies policy to data that arrives at this interface after a route lookup
- *policyName*—Name of the policy; a maximum of 40 characters
- statistics—Enables or disables collection of policy routing statistics
  - enabled—Enable collection of policy routing statistics
  - baseline enabled—Enables baselining of policy routing statistics (Interface Configuration mode only)
  - baseline disabled—Disables baselining of policy routing statistics (Interface Configuration mode only)

- preserve—Preserves existing statistics for any classifier-list that is the same for both the new and old policy attachments when you attach a new policy to an interface
- disabled—Disable collection of policy routing statistics

- merge—Enables merging of multiple policies to form a single policy

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NOTE: The **local-input** keyword for the **ipv6 policy** command is deprecated, and may be completely removed in a future release. The keyword should be removed from scripts.

You should recreate any local input policies using the **ipv6 classifier-list local true** command and attaching the policies using the **ipv6 policy secondary-input** command.

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
merge keyword added in JUNOSe Release 7.2.0.
Profile Configuration mode added in JUNOSe Release 7.2.0.

Related Topics

- Setting a Statistics Baseline

ipv6 policy-list

Description Creates or modifies an IPv6 policy list. If you execute an **ipv6 policy-list** command and type **exit**, the router creates a policy list with no rules, the default. When a policy list does not have rules, the router inserts a default filter rule. Attaching this policy list to an interface filters all packets on that interface. The **no** version removes a policy list.

Syntax [no] ipv6 policy-list *policyName*

- *policyName*—Name of the policy list

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Creating Policy Lists for IPv6

ipv6 policy-parameter hierarchical

Description Specifies a parameter value for IPv6 interfaces. The **no** version removes the policy parameter and its contents.

Syntax ipv6 policy-parameter hierarchical *parameterName* { *nodeValue* | atm | atm-vc | atm-vp *vpValue* | ethernet | fr-vc | forwarding | svlan *svlanValue* | vlan }

no policy-parameter *parameterName*

- *parameterName*—Name of policy parameter
- *nodeValue*— Aggregation node number in the range 1–65535
- *vpValue*—ATM VPI number in the range 0–255
- *svlanValue*—SVLAN ID number in the range 0–4095

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.0.0.

Related Topics

- Creating a Classifier Group for a Policy List

ipv6 policy-parameter reference-rate

Description Creates an IPv6 policy parameter for a reference rate; creates a global parameter if it does not exist. The **no** version removes the policy parameter and its contents; if used with the **increase** keyword, decreases the value.

Syntax In Interface Configuration mode:
ipv6 policy-parameter reference-rate *parameterName* [increase] *value*

no ipv6 policy-parameter reference-rate *parameterName* [increase *value*]

In Profile Configuration mode:
ipv6 policy-parameter reference-rate *parameterName* [increase] *value*

no ipv6 policy-parameter reference-rate *parameterName*

- *parameterName*—Name of policy parameter up to 40 characters
- increase—Increments the existing reference rate value
- *value*—Value of the reference rate parameter, in the range 0–4292967295

Mode Interface Configuration, Profile Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

Related Topics

- Creating a Classifier Group for a Policy List

ipv6 prefix-list

Description Creates an IPv6 prefix list for route filtering; specifies a list entry—a permit or deny clause for a network address. The **no** version removes the specified prefix list or the specified list entry.

Syntax ipv6 prefix-list *listName* { description *desc* | { [seq *sequence*] { permit | deny } *ipv6Prefix* [ge *geNumber*] [le *leNumber*] } }

no ipv6 prefix-list *listName* [description | [seq *sequence*] [{ permit | deny } *ipv6Prefix* [ge *geNumber*] [le *leNumber*]]]

- *listName*—Name of the IPv6 prefix list; a string of up to 32 characters
- *desc*—Description of the prefix list
- *sequence*—Number in the range 0–65535 that indicates the position the prefix list entry has in the already existing list of entries for the prefix list; if you do not specify a *sequence*, the command uses the value of the last sequence number + 5
- permit—When specified, the router redistributes any prefix that matches the filtered route based on the set actions
- deny—When specified, the router drops any prefix that matches the filtered route
- *ipv6Prefix*—Network route that you want to filter, in the format *ipv6Address/length*, where
  - *ipv6Address*—Base IPv6 address of the network route that you want to filter (for example, ::ffff:a:b:c:d)
  - *length*—Length of the network prefix; number of bits masking base address to produce address to be matched
- *geNumber*—Route being filtered matches if its prefix is within the range specified: greater than or equal to *geNumber* and less than or equal to 32
- *leNumber*—Route being filtered matches if its prefix is within the range specified: greater than or equal to *length* and less than or equal to *leNumber*

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 route

Description Configures a static IPv6 prefix route. The **no** version removes a static IPv6 prefix route.

Syntax ipv6 route [vrf *vrfName*] *prefix* { *nextHop* | *interfaceType interfaceSpecifier* } [*distance*]

no ipv6 route [vrf *vrfName*] *prefix* [*nextHop* | *interfaceType interfaceSpecifier*] [*distance*]

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *prefix*—Combination of both a prefix and prefix length (mask) value. The prefix (IP address or network) defines the IPv6 interface or network. The prefix (mask) length of the IPv6 prefix is a decimal value that indicates how many of the high-order contiguous bits of the address comprise the prefix (the network portion of the address). A slash mark must precede the decimal value. An example of a prefix would be "7fff::0/16", "7fff::0/32", "7fff:2:3::0/24", or "7fff::1/128".
- *nextHop*—IPv6 address of the next-hop to reach the destination prefix (network). The next-hop address need not be directly connected; recursion locates the physical next-hop.
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *distance*—Preference value for the IPv6 route. A default value of 1 gives static routes precedence over any other type of route (with the exception of connected routes).

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
vrf keyword and *vrfName* variable added in JUNOSe Release 7.2.0.

ipv6 router isis

Description Enables the IS-IS routing protocol on an interface and specifies an IS-IS process for IPv6. The **no** version disables IS-IS routing.

Syntax [no] ipv6 router isis [*tag*]

- *tag*—Meaningful name for a routing process; name must be unique among all IP router processes for a given router; if not specified, a null tag is assumed, and the process is referenced with a null tag

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.2.0.

ipv6 router mld

Description Creates and enables MLD on a virtual router; accesses MLD router configuration mode. The **no** version disables MLD on a virtual router.

NOTE: This command is identical to the **router mld** command.

Syntax [no] ipv6 router mld

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6-router-name

Description Maps a user domain name to an IPv6 virtual router. The **no** version deletes the router name parameter, and the router defaults to the default virtual router.

Syntax ipv6-router-name *vrName*

no ipv6-router-name [*vrName*]

- *vrName*—Name of the virtual router; a string of 1–15 alphanumeric characters

Mode Domain Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 router ospf

Description Configures an IPv6 OSPF routing process. The **no** version disables an IPv6 OSPF routing process.

Syntax [no] ipv6 router ospf *processId*

- *processId*—Number in the range 1–65535 that identifies the OSPF process

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 router pim

Description Creates and enables PIM for IPv6 on a virtual router; accesses PIM router configuration mode. The **no** version deletes PIM from a virtual router.

Syntax [no] ipv6 router pim

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 route-type

Description For BGP, specifies whether BGP IPv6 routes are available only for other unicast protocols or for both unicast protocols and multicast protocols to perform RPF checks. The **no** version restores the default value, unicast.

For OSPF, specifies whether OSPF IPv6 routes are available only for unicast forwarding, only for multicast reverse path forwarding checks, or for both. The **no** version restores the default value, both.

Syntax For BGP

ipv6 route-type [unicast | both]

no ipv6 route-type

For OSPF

ipv6 route-type [unicast | multicast | both]

no ipv6 route-type

- unicast—Specifies that routes for the protocol are available only for unicast forwarding
- both—Specifies that routes for the protocol are available for both unicast forwarding and multicast route path forwarding checks
- multicast—Specifies that routes for the protocol are available only for multicast route path forwarding checks

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 rpf-route

Description Customizes static IPv6 routes that the router can use to verify source addresses in multicast packets. The **no** version removes the static route.

Syntax ipv6 rpf-route [vrf *vrfName*] *ipv6Address/addressMask*
{ *nextHopIpv6Address* | *interfaceType interfaceSpecifier* } [*distance*]

no ipv6 rpf-route [vrf *vrfName*] *ipv6Address/addressMask*
[*nextHopIpv6Address* | *interfaceType interfaceSpecifier*] [*distance*]

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *ipv6Address*—IPv6 address of the destination network
- *addressMask*—Subnet mask for the destination network
- *nextHopIpv6Address*—IPv6 address of the next hop
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *distance*—Number in the range 0–255 that indicates the preference for this route

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
vrf keyword and *vrfName* variable added in JUNOSe Release 7.2.0.

ipv6 sa-validate

Description Enables source address validation on an IPv6 interface. This feature verifies that a packet has been sent from a valid source address. When a packet arrives on an interface, the router performs a routing table lookup using the source address. The result from the routing table lookup is an interface to which packets destined for that address are routed. This interface must match the interface that the packet arrived on. If it does not match, the router drops the packet. The **no** version disables source address validation.

Syntax [no] ipv6 sa-validate

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 share-interface

Description Specifies the layer 2 interface that an IPv6 interface will share in the current virtual router. The **no** version removes the association between the layer 2 interface and the shared IPv6 interface.

Syntax ipv6 share-interface *interfaceType interfaceSpecifier*

no ipv6 share-interface

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 static-route table-map

Description Filters static routes before adding them to the routing table. The **no** version deletes the table map.

Syntax ipv6 static-route table-map [vrf *vrfName*] *mapName*

no ipv6 static-route table-map [vrf *vrfName*] [*mapName*]

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *mapName*—Name of the table map that you want the router to use

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
vrf keyword and *vrfName* variable added in JUNOSe Release 7.2.0.

ipv6 unnumbered

Description Enables or disables IPv6 processing on an interface without assigning an explicit IPv6 address to that interface. The global IPv6 address of the interface, specified by the *interfaceType interfaceSpecifier* values, becomes the source address in packets that the unnumbered interface generates. The **no** version of the command removes the IPv6 address from the interface.

NOTE: Enabling IPv6 on an interface automatically configures the link-local address on an unnumbered interface.

Syntax ipv6 unnumbered *interfaceType interfaceSpecifier*

no ipv6 unnumbered

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

ipv6 virtual-router

Description Specifies a virtual router in an IPv6 profile. Dynamic interfaces created with the profile are assigned to this VR. The **no** version removes the VR from the profile; if a VR is not specified via RADIUS, then any subsequent creation process for dynamic interfaces using the profile fails.

Syntax [no] ipv6 virtual-router *vrName*

- *vrName*—Name of the virtual router; a string of 1–15 alphanumeric characters

Mode Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

isis authentication-key

Description Assigns a password for IS-IS level 1 and level 2 hellos used by neighboring routers that are using IS-IS password authentication. The **no** version deletes the password.

Syntax isis authentication-key [level-1 | level-2] *authKey*

no isis authentication-key [level-1 | level-2]

- level-1—Inserts the password into level 1 hello packets
- level-2—Inserts the password into level 2 hello packets
- *authKey*—Password; string of up to 8 characters

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

isis bfd-liveness-detection

Description Enables BFD (bidirectional forwarding detection) on an interface running IS-IS and defines BFD values to be negotiated between IS-IS neighbors for detection of IP data path failures. The **no** version disables BFD on the IS-IS interface.

Syntax [no] isis bfd-liveness-detection [minimum-interval *minInterval* |
[minimum-receive-interval *minRecInterval*]
[minimum-transmit-interval *minTransInterval*]] [multiplier *multValue*]

- *minInterval*—Minimum proposed transmit interval and required receive interval for BFD control packets; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minRecInterval*—Minimum interval at which the local peer must receive BFD control packets sent by the remote peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minTransInterval*—Minimum proposed interval between BFD control packets sent by the local peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *multValue*—Detection multiplier value that the remote peer router multiplies by the local peer's negotiated transmit interval to determine the remote peer's BFD liveness detection interval; equal to the number of BFD packets that can be missed before the BFD session is declared down; number in the range 1–255; default value is 3

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

isis circuit-type

Description Configures the type of adjacency desired for the specified interface. The **no** version resets the circuit type to level 1 and level 2.

Syntax isis circuit-type [level-1 | level-1-2 | level-2-only]

no isis circuit-type

- level-1—Establishes a level 1 adjacency if there is at least one area address in common between this router and its neighbors
- level-1-2—(default) Establishes a level 1 and 2 adjacency if the neighbor is also configured as a level 1-2 router and there is at least one area in common. If there is no area in common, a level 2 adjacency is established.
- level-2-only—Establishes a level 2 adjacency on the circuit. If the neighboring router is a level 1 only router, no adjacency will be established.

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

isis csnp-interval

Description Configures the IS-IS CSNP interval for the specified interface. The **no** version restores the default value.

Syntax isis csnp-interval *seconds* [level-1 | level-2]

no isis csnp-interval [*seconds*] [level-1 | level-2]

- *seconds*—Number in the range 0–65535; the interval of time in seconds between the transmission of CSNPs on multiaccess networks for the designated router; default value is 10 seconds, except for WAN interfaces, where the default value is 0
- level-1—Sets the interval of time between transmission of CSNPs for level 1 independently
- level-2—Sets the interval of time between transmission of CSNPs for level 2 independently

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

isis hello-interval

Description Specifies the length of time in seconds between hello packets that the router sends on the specified interface. The **no** version restores the default value.

Syntax isis hello-interval *seconds* [level-1 | level-2]

no isis hello-interval [*seconds*] [level-1 | level-2]

- *seconds*—Time (in the range 0–65535 seconds) equal to the *hello multiplier* times the *hello interval seconds*; default value is 10 seconds.
- level-1—Sets the hello interval for level 1 independently
- level-2—Sets the hello interval for level 2 independently

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

isis hello-multiplier

Description Specifies the number of IS-IS hello packets a neighbor must miss before the router declares the adjacency to be down. The **no** version restores the *multiplier* default value, 3.

Syntax isis hello-multiplier *multiplier* [level-1 | level-2]

no isis hello-multiplier [*multiplier* | level-1 | level-2]

- *multiplier*—Value (in the range 3–1000) that the router uses as the hello-multiplier when calculating the advertised hold time. The default multiplier value is 3.
- level-1—Sets the hello-multiplier independently for level 1 adjacencies
- level-2—Sets the hello-multiplier independently for level 2 adjacencies

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

isis hello padding

Description Pads IS-IS hello packets to their full maximum transmission unit (MTU) size. The **no** version restores the hello padding to its default, no padding.

Syntax [no] isis hello padding

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

isis lsp-interval

Description Configures the time delay between successive IS-IS link-state packet transmissions. The **no** version restores the default value, 33 milliseconds.

Syntax isis lsp-interval *milliseconds*

no isis lsp-interval

- *milliseconds*—Number of milliseconds in the range 1–4294967295; an interval between successive link-state packets

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

isis mesh-group

Description Configures an interface in the same mesh group to act as a virtual multiaccess network. The **no** version disables the feature.

Syntax isis mesh-group { blocked | *number* }

no isis mesh-group

- blocked—Blocks reserved LSPs from being flooded out on this defined configured interface
- *number*—Mesh group number in the range 1–4294967295

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

isis message-digest-key

Description Specifies an HMAC MD5 key that the router uses to create a secure, encrypted message digest of IS-IS level 1 or level 2 hello packets on the interface. Level 1 packets are the default. The digest is inserted into the packet from which it is created. Using this algorithm protects against intrusion by preventing unauthorized routers from forming adjacencies with your router.

You can specify when the router will start (default is the current time) and stop (default is never) accepting packets that include a digest made with this key. You can specify when the router will start (default is the current time plus 2 minutes) and stop (default is never) generating packets that include a digest made with this key. The **no** version deletes the key specified by the *keyId*.

Syntax isis message-digest-key *keyId* hmac-md5 *key*
[start-accept *startAcceptTime* [{ *startAcceptMonth startAcceptDay* | *startAcceptDay startAcceptMonth* } *startAcceptYear*]]
[start-generate *startGenTime* [{ *startGenMonth startGenDay* | *startGenDay startGenMonth* } *startGenYear*]]
[stop-accept { never | *stopAcceptTime* [{ *stopAcceptMonth stopAcceptDay* | *stopAcceptDay stopAcceptMonth* } *stopAcceptYear*] }]
[stop-generate { never | *stopGenTime* [{ *stopGenMonth stopGenDay* | *stopGenDay stopGenMonth* } *stopGenYear*] }] [level-1 | level-2]

no isis message-digest-key *keyId* [level-1 | level-2]

- *keyId*—Integer from 1 to 255 that is a unique identifier for the secret key, sent with the message digest in the packet.
- *key*—String of up to 20 alphanumeric characters; secret key used by the HMAC MD5 algorithm to generate the message digest.
- *startAcceptTime, startAcceptMonth, startAcceptDay, startAcceptYear*—Time, month, day, year that the router will start accepting packets created with this password. Use military time format *HH*:*MM*[:*SS*].
- *startGenTime, startGenMonth, startGenDay, startGenYear*—Time, month, day, year that the router will start inserting this password into packets. Use military time format *HH*:*MM*[:*SS*].
- never—Specifies that the router never stops accepting or generating packets; overrides previously specified stop times.
- *stopAcceptTime, stopAcceptMonth, stopAcceptDay, stopAcceptYear*—Time, month, day, year that the router will stop accepting packets created with this password. Use military time format *HH*:*MM*[:*SS*].
- *stopGenTime, stopGenMonth, stopGenDay, stopGenYear*—Time, month, day, year that the router will stop inserting this password into packets. Use military time format *HH*:*MM*[:*SS*].
- level-1—Inserts the password into level 1 hello packets
- level-2—Inserts the password into level 2 hello packets

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

isis metric

Description Configures the metric (cost) for the interface to links at the specified level. If no level is specified, the cost is applied to both level 1 and level 2 links. The **no** version restores the default metric value.

Syntax isis metric *defaultMetric* [level-1 | level-2]

no isis metric [*defaultMetric* | level-1 | level-2]

- *defaultMetric*—Metric used for the redistributed route; a number in the range 0–63 if the router is configured with the **metric-style narrow** command; a number in the range 0–16777215 if the router is configured with the **metric-style transition** or **metric-style wide** command; default value is 10
- level-1—Applies metric to level 1 links
- level-2—Applies metric to level 2 links

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

isis network point-to-point

Description Specifies the IS-IS circuit type as point-to-point. Issuing this command tears down existing adjacencies, originates or flushes LSPs, and establishes new adjacencies. The **no** version restores the default, treating the circuit as a broadcast circuit.

Syntax [no] isis network point-to-point

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

isis priority

Description Configures the priority of this router for designated router election. The **no** version resets priority to the default value, 64.

Syntax isis priority *value* [level-1 | level-2]

no isis priority [level-1 | level-2]

- *value*—Number in the range 0–127; the priority of a router; default value is 64
- level-1—Sets the priority of a router for level 1 independently
- level-2—Sets priority of a router for level 2 independently

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

isis retransmit-interval

Description Configures the number of seconds between retransmission of LSPs with the same lsp-id for point-to-point links. The **no** version restores the default value.

Syntax isis retransmit-interval *seconds*

no isis retransmit-interval

- *seconds*—Number of seconds in the range 1–65535; default value is 5. The number should be greater than the expected round-trip delay between any two routers on the attached network. The setting of this parameter should be conservative, or needless retransmission will result. The value should be larger for serial lines.

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

isis retransmit-throttle-interval

Description Configures the amount of time between retransmissions of any IS-IS LSPs on a point-to-point interface. The **no** version restores the default value, 33 milliseconds.

Syntax isis retransmit-throttle-interval *milliseconds*

no isis retransmit-throttle-interval

- *milliseconds*—Number of milliseconds in the range 0–65535; the minimum delay between LSP retransmissions on the interface

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

isis tag

Description Sets a route tag value for the IP addresses on an IS-IS interface before the route is propagated to other routers in an IS-IS domain. To use the route tag, you must reference it in a route map to set values and/or redistribute routes. The **no** version removes the route tag from the interface.

Syntax [no] isis tag *tagValue*

- *tagValue*—Number in the range 1–4294967295 that identifies the route tag assigned to the IS-IS interface

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

issuer-identifier

Description Specifies the name of the CA issuer for online digital certificate configuration. In CA authentication requests, the identifier is used together with the enrollment URL specified by the **enrollment url** command. The **no** version removes the name from the configuration.

Syntax issuer-identifier *name*

no issuer-identifier

- *name*—Name of CA issuer; in the range 1–200 characters

Mode IPSec CA Identity Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

issu initialize

Description Starts the initialization phase of unified ISSU. There is no **no** version.

Syntax issu initialize

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 9.0.0.

issu start

Description Starts the upgrade phase of unified ISSU. There is no **no** version.

Syntax issu start

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 9.0.0.

issu stop

Description Stops the unified ISSU operation and restores the router to the state existing before you issued the **issu initialize** command. There is no **no** version.

Syntax issu stop

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 9.0.0.

is-type

Description Configures the IS-IS level at which the router is to operate. The **no** version restores the default value, level-1-2.

Syntax is-type { level-1 | level-1-2 | level-2-only }

no is-type

- level-1—Causes the router to act as a station router
- level-1-2—Causes the router to act as both a station router and an area router; the default setting
- level-2-only—Causes the router to act as an area router

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

key

Description

From RADIUS Configuration mode, specifies the secret for the RADIUS authentication, accounting, dynamic-request server, or preauthentication server that is used to calculate the RADIUS authenticator field during exchanges with the RADIUS server. The **no** version removes the secret and causes the router to drop all requests for the RADIUS client.

From RADIUS Relay Configuration mode, specifies the IP address and mask of the network that will use the relay authentication or accounting server, and the secret used during exchanges between the RADIUS relay server and client. The **no** version removes the secret.

From IPSec Manual Key Configuration mode, configures a manual ISAKMP/IKE preshared key. There is no **no** version. To delete a key, use the **no** version of the **ipsec key manual** command.

Syntax

To assign a RADIUS key:

key *secret*

no key

- *secret*—Authentication, accounting, dynamic-request, or preauthentication server secret text string used by RADIUS to encrypt the client and server authenticator field during exchanges between the router and a RADIUS server. The router encrypts PPP PAP passwords using this text string.

To assign a RADIUS relay key:

key *ipAddress ipMask secret*

no key *ipAddress ipMask*

- *ipAddress*—IP address for client network
- *ipMask*—IP mask for the client network
- *secret*—Text string; up to 32 characters

To assign an ISAKMP/IKE key:

key *keyString*

no key

- *keyString*—Key value in ASCII format; up to 200 characters

Mode

IPSec Manual Key Configuration, RADIUS Configuration, RADIUS Relay Configuration

Release Information

Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring RADIUS-Based Mirroring

key-string

Description Manually configures a 1024-bit or 2048-bit ISAKMP/IKE public key that a remote peer uses for RSA authentication without the need for a digital certificate. The key string represents the public key hexadecimal data that includes the ASN.1 object identifier and sequence tags for RSA encryption. There is no **no** version. To remove a peer public key from the router, use the **no** version of the **ipsec key pubkey-chain rsa** command.

Syntax key-string *keyStringData*

- *keyStringData*—Alphanumeric string with a maximum length of 1999 characters; delimited by the first character of the string, which must be repeated at the end of the string and must not occur anywhere else in the string

Mode IPSec Peer Public Key Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

l2c

Description Accesses the L2C Configuration (config-l2c) mode for ANCP. The **no** version exits the L2C CSonfiguration mode and removes all ANCP configuration.

Syntax [no] l2c

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2c end-user-id

Description Creates the GSMP output label associated with the interface. In addition to the label, this command also specifies the access node using the **neighbor** keyword. The **no** version removes the output label association.

Syntax l2c end-user-id *idString* neighbor *neighborName*

no l2c end-user-id *idString*

- *idString*—String to identify the GSMP label
- *neighborName*—Name of the neighboring access node

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2c ip listen

Description Creates a listening TCP socket at the virtual router within the ANCP context. ANCP needs TCP sockets so that neighbors can open GSMP sessions. The **no** version removes the listening TCP socket and stops any new sessions from being established. The **no** version does not terminate any existing GSMP sessions.

Syntax [no] l2c ip listen

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2c ip oif

Description Creates an IGMP session at the virtual router within the context. ANCP needs IGMP sessions so it can convey OIF mapping events to the appropriate ANCP neighbor. The **no** version removes the IGMP session.

Syntax [no] l2c ip oif

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2c line-configuration

Description Generates a GSMP port management message to the access node for the purpose of configuring a DSL profile string on the specified neighbor interface. There is no **no** command.

Syntax l2c line-configuration interface *interfaceType interfaceSpecifier profileName*

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *profileName*—Name of profile to be used in the line configuration (port management) message

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2c max-branches

Description Specifies the maximum number of branches the ANCP end user can have. The **no** version returns the maximum number of branches to its default value (unlimited branches).

Syntax [no] l2c max-branches *maxBranches*

- *maxBranches*—Maximum number of branches allowed for the ANCP end user in the range 1–64000

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2c oam

Description Triggers the access node to run a local loopback test on the specified interface. There is no **no** version.

Syntax l2c oam { neighbor *neighborName* end-user-id *endUserId* | interface *interfaceType interfaceSpecifier* } [count *countValue*] [timeout *timeoutValue*]

- *neighborName*—Name of the neighbor
- *endUserId*—Output ANCP label
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *countValue*—Number of local loopback messages
- *timeoutValue*—Time (in seconds) for the access node to wait for a loopback response from the neighbor

Mode Privileged Exec, User Exec

Release Information Command introduced in JUNOSe Release 7.2.0.

l2c peer-attachment-id

Description Creates the GSMP input label associated with the interface. The **no** version removes the input label association.

Syntax l2c peer-attachment-id *idString*

no l2c peer-attachment-id

- *idString*—String to identify the GSMP label

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp checksum

Description Enables the generation of a UDP data integrity checksum in data packets sent to an L2TP peer. The default setting is disabled. The **no** version disables the generation of the checksums.

Syntax [no] l2tp checksum

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp classifier-list

Description Creates or modifies a classifier control list. The **no** version removes the classifier control list.

Syntax l2tp classifier-list *classifierName* [traffic-class *trafficClassName*] [color { green | yellow | red }] [user-packet-class *userPacketClassValue*]

no l2tp classifier-list *classifierName* [*classifierNumber*]

- *classifierName*—Name of the classifier control list entry
- *classifierNumber*—Index of the classifier list entry; use the **show classifier-list** command to see a list of entries with index numbers
- *trafficClassName*—Name of the traffic class to match
- green—Matches packet color to green, indicating a low drop preference
- yellow—Matches packet color to yellow, indicating a medium drop preference
- red—Matches packet color to red, indicating a high drop preference
- *userPacketClassValue*—User packet class value

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Creating or Modifying Classifier Control Lists for L2TP Policy Lists

l2tp destination lockout-test

Description Configures L2TP to test locked-out destinations to verify whether a destination is available before it is returned to service. The **no** version restores the default behavior, in which locked-out destinations are not tested.

Syntax [no] l2tp destination lockout-test

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

l2tp destination lockout-timeout

Description Specifies the amount of time an L2TP destination remains in the lockout state after the destination becomes unavailable. When the timeout period expires, the router either begins the lockout test procedure (if configured to do so) or immediately returns the destination to service. The **no** version restores the default lockout timeout value.

Syntax l2tp destination lockout-timeout *timeOutValue*

no l2tp destination lockout-timeout

- *timeOutValue*—Number of seconds in the range 60–3600; default is 300 seconds (5 minutes)

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

l2tp destination profile

Description Creates or accesses a destination profile that defines the location of a LAC. The **no** version removes the L2TP destination profile.

Syntax l2tp destination profile { *profileName* [[virtual-router *vrName*] ip address *ipAddress*] | [virtual-router *vrName*] ip address *ipAddress* }

no l2tp destination profile { *profileName* | [virtual-router *vrName*] ip address *ipAddress* }

- *profileName*—Name of the L2TP destination profile
- *vrName*—Name of the virtual router to be used to reach the destination (that is, the LAC). If you do not specify a virtual router, the current virtual router context is used.
- *ipAddress*—IP address to be used to reach the destination

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp destruct-timeout

Description Specifies the maximum time for which the router maintains dynamic destinations, tunnels, and sessions that have terminated. If resources are low, the router will replace the terminated objects with new requests. The **no** version restores the default value, 600 seconds.

Syntax l2tp destruct-timeout *seconds*

no l2tp destruct-timeout

- *seconds*—Time in the range 10–3600 seconds (1 hour)

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp dial-out connecting-timer-value

Description Sets the maximum amount of time allowed for successful establishment of an L2TP dial-out session. The **no** version restores the default value, 30 seconds.

Syntax [no] l2tp dial-out connecting-timer-value *connectingTime*

- *connectingTime*—Range 30–3600 seconds

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp dial-out dormant-timer-value

Description Defines how long the dial-out session stays in the dormant state waiting for a new trigger after the associated L2TP outgoing call is ended. The **no** version set the dormant timer to the default value, 300 seconds (5 minutes).

Syntax [no] l2tp dial-out dormant-timer-value *dormantTime*

- *dormantTime*—Range 0–3600 seconds

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp dial-out max-buffered-triggers

Description Sets the maximum number of buffered trigger packets held for any dial-out session pending the successful establishment of the L2TP session. The **no** version set the number of trigger buffers to the default value, 0.

Syntax [no] l2tp dial-out max-buffered-triggers *maxBuffers*

- *maxBuffers*—Range 0–50 buffered packets

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp dial-out session delete

Description Deletes a dial-out session. There is no **no** version.

Syntax l2tp dial-out session delete *triggerIpAddress*

- *triggerIpAddress*—Target IP address of the session

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp dial-out session reset

Description Resets the state of a dial-out session by forcing it to the dormant state. There is no **no** version.

Syntax l2tp dial-out session reset *triggerIpAddress*

- *triggerIpAddress*—Trigger IP address of the session

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp dial-out target

Description Defines an L2TP dial-out target that enables the creation of a dial-out session. The **no** version removes the L2TP dial-out route or target.

Syntax l2tp dial-out target *ipAddress ipAddressMask domainName* profile *profileName*

no l2tp dial-out target *ipAddress ipAddressMask*

- *ipAddress*—IP address of the target
- *ipAddressMask*—IP address mask of the target
- *domainName*—Domain name to be used in the outgoing call Access-Request message
- *profileName*—Name of profile to be used in the creation of the interface stack

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp disable calling-number-avp

Description Prevents the E-series LAC from sending the Calling Number attribute value pair (AVP) in incoming-call-request (ICRQ) packets. The **no** version enables sending of the Calling Number AVP, the default setting.

Syntax [no] l2tp disable calling-number-avp

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp disable challenge

Description Disables the generation of local tunnel authentication challenges. The **no** version enables local challenge generation, which is the default setting.

Syntax [no] l2tp disable challenge

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp disconnect-cause

Description Enables an E-series LNS to generate, for all L2TP sessions, a PPP Disconnect Cause Code attribute value pair (AVP) and include it in all L2TP Call-Disconnect-Notify (CDN) messages that it sends to an LAC. This action provides a mechanism for the LAC to obtain information about the cause of a session disconnection. The **no** version disables generation of the PPP Disconnect Cause Code AVP, which is the default setting.

Syntax [no] l2tp disconnect-cause

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp drain

Description Prevents the creation of new destinations, tunnels, and sessions for the router. This command works in conjunction with the **l2tp shutdown** command. Both commands affect the status of the administrative state of L2TP on the router; the **l2tp drain** command sets the administrative state to drain. The **no** version allows the creation of new destinations, tunnels, and sessions for the router.

Syntax [no] l2tp drain

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp drain destination

Description Prevents the creation of new tunnels and sessions at a destination. This command works in conjunction with the **l2tp shutdown destination** command. Both commands affect the status of the administrative state of L2TP for the destination; the **l2tp drain destination** command sets the administrative state to drain. The **no** version allows the creation of new tunnels and sessions at a destination.

Syntax [no] l2tp drain destination { *destinationName* | [virtual-router *vrName*] ip *ipAddress* }

- *destinationName*—Name the router assigns to the LNS
- *vrName*—Name of the virtual router on which the destination exists
- *ipAddress*—IP address of the LNS

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp drain tunnel

Description Prevents the assignment of new sessions to a tunnel. This command works in conjunction with the **l2tp shutdown tunnel** command. Both commands affect the status of the administrative state of L2TP for the tunnel; the **l2tp drain tunnel** command sets the administrative state to drain. The **no** version allows the assignment of new sessions to a tunnel.

Syntax [no] l2tp drain tunnel { *destinationName* |
[virtual-router *vrName*] ip *ipAddress tunnelName* }

- *destinationName*—Name the router assigns to the LNS
- *vrName*—Name of the virtual router on which the tunnel exists
- *ipAddress*—IP address of the LNS
- *tunnelName*—Name of the tunnel

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp failover-resync

Description Configures the global L2TP peer resynchronization method that an L2TP failed endpoint uses to resynchronize with its peer non-failed endpoint. This setting can be overridden by a peer resynchronization method that is configured by either an L2TP host profile or an AAA domain map tunnel configuration. The **no** version disables peer resynchronization. The **default** version restores the default peer resynchronization method, failover-protocol-fallback-to-silent-failover.

Syntax l2tp failover-resync { failover-protocol | failover-protocol-fallback-to-silent-failover | silent-failover | disable }

no l2tp failover-resync

- failover-protocol—Specifies the L2TP failover protocol method
- failover-protocol-fallback-to-silent-failover—Specifies the L2TP failover protocol method; however, if the peer does not support this method, the silent failover method is used; this is the default setting
- silent-failover—Specifies the silent failover method
- disable—Disables peer resynchronization

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

l2tp fail-over-within-preference

Description Enables tunnel selection within a preference level. The **no** version restores the default behavior, which is to drop down a preference level when a connection attempt has failed.

Syntax [no] l2tp fail-over-within-preference

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp ignore-receive-data-sequencing

Description Suppresses sequence number checking for data packets received on all L2TP tunnels in the router. This setting affects only packets received on a tunnel, not packets sent on a tunnel. The L2TP LAC still inserts sequence numbers into data packets if the LAC receives packets from the LNS that contain sequence numbers. The **no** version restores the default, which causes the router to check the sequence numbers in data packets that it receives on L2TP tunnels.

NOTE: If you are using IP reassembly, we recommend that you set up the router to ignore sequence numbers in received data packets. Because IP reassembly may reorder L2TP packets, out-of-order packets may be dropped if sequence numbers are being used on L2TP data packets.

Syntax [no] l2tp ignore-receive-data-sequencing

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp ignore-transmit-address-change

Description Specifies that E-series routers ignore address changes in Start-Control-Connection-Reply (SCCRP) control packets received from the remote endpoint. If you do not include a keyword, the router ignores the entire address change. The **no** version restores the default, which causes the router to accept address changes in response to SCCRP packets.

Syntax [no] l2tp ignore-transmit-address-change [ip-address | udp-port]

- ip-address—Ignores only IP address changes
- udp-port—Ignores only UDP port number changes

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
ip-address and **udp-port** keywords added in JUNOSe Release 7.1.0.

l2tp policy

Description Assigns an L2TP policy list to a profile, which then assigns the policy to an interface. If you enter the **l2tp policy** command and the policy list does not exist, the router creates a policy list with no rules, the default. Attaching this policy list to an interface filters all packets on that interface. You must specify the **input** or **output** keyword to assign the policy list to the ingress or egress of the interface. The **no** version removes the association between a policy list and a profile.

Syntax

l2tp policy { input | output } *policyName* [statistics { enabled | disabled } [merge]

no l2tp policy { input | output }

- input—Applies policy to data arriving at the interface
- output—Applies policy to data leaving the interface
- *policyName*—Name of the policy; maximum of 40 characters
- statistics—Enables or disables collection of policy routing statistics
  - enabled—Enables collection of policy routing statistics
  - disabled—Disables collection of policy routing statistics
- merge—Enables merging of multiple policies to form a single policy

Mode Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
merge keyword added in JUNOSe Release 7.2.0.

Related Topics

- Setting a Statistics Baseline

l2tp policy-list

Description Creates or modifies an L2TP policy list. If you enter an **l2tp policy-list** command and type **exit**, the router creates a policy list with no rules. When a policy list does not have rules, the router inserts a default filter rule. Attaching this policy list to an interface filters all packets on that interface. The **no** version removes a policy list.

Syntax

[no] l2tp policy-list [*policyName*]

- *policyName*—Name of the policy list

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Creating Policy Lists for L2TP

l2tp policy-parameter hierarchical

Description Specifies a parameter value for L2TP interfaces. The **no** version removes the policy parameter and its contents.

Syntax l2tp policy-parameter hierarchical *parameterName* { *nodeValue* | atm | atm-vc | atm-vp *vpValue* | ethernet | fr-vc | forwarding | svlan *svlanValue* | vlan }

no policy-parameter *parameterName*

- *parameterName*—Name of policy parameter
- *nodeValue*— Aggregation node number in the range 1–65535
- *vpValue*—ATM VPI number in the range 0–255
- *svlanValue*—SVLAN ID number in the range 0–4095

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.0.0.

Related Topics

- Creating a Classifier Group for a Policy List

l2tp policy-parameter reference-rate

Description Creates an L2TP policy parameter for a reference rate; creates a global parameter if it does not exist. The **no** version removes the policy parameter and its contents; if used with the **increase** keyword, decreases the value.

Syntax l2tp policy-parameter reference-rate *parameterName* [increase] *value*

no l2tp policy-parameter reference-rate *parameterName*

- *parameterName*—Name of policy parameter up to 40 characters
- increase—Increments the existing reference rate value
- *value*—Value of the reference rate parameter, in the range 0–4292967295

Mode Profile Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

Related Topics

- Creating a Classifier Group for a Policy List

l2tp reject-transmit-address-change

Description Specifies that E-series routers reject address changes in Start-Control-Connection-Reply (SCCRP) control packets received from the remote endpoint. If you do not include a keyword, the router rejects the entire address change. The **no** version restores the default, which causes the router to accept address changes in response to SCCRP packets.

Syntax [no] l2tp reject-transmit-address-change [ip-address | udp-port]

- ip-address—Rejects only IP address changes
- udp-port—Rejects only UDP port number changes

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

l2tp retransmission

Description Sets the number of retransmission retries, and allows you to apply the retry count to established and/or unestablished tunnels. If you do not include a keyword, the router applies the retry count to all tunnels. The **no** version resets the number of retransmissions to the default value, 5.

Syntax l2tp retransmission *retries* [established | not-established]

no l2tp retransmission [*retries*] [established | not-established]

- *retries*—Number in the range 2–7
- established—Applies the retry count only to established tunnels
- not-established—Applies the retry count only to tunnels that are not established

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp rx-connect-speed-when-equal

Description Generates the L2TP receive (RX) speed AVP when the RX and TX speeds are equal. The **no** version disables generation of the RX speed AVP when the RX and TX speeds are equal.

Syntax [no] l2tp rx-connect-speed-when-equal

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp shutdown

Description Closes all destinations, tunnels, and sessions and prevents the creation of new destinations, tunnels, and sessions for the router. This command works in conjunction with the **l2tp drain** command. Both commands affect the status of the administrative state of L2TP on the router; the **l2tp shutdown** command sets the administrative state to disabled. The **no** version enables the creation of new destinations, tunnels, and sessions for the router.

Syntax [no] l2tp shutdown

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp shutdown destination

Description Closes all tunnels and sessions at a destination, and prevents the creation of new tunnels and sessions at that destination. This command works in conjunction with the **l2tp drain destination** command. Both commands affect the status of the administrative state of L2TP on the destination; the **l2tp shutdown destination** command sets the administrative state to disabled. The **no** version enables the creation of new tunnels and sessions at that destination.

Syntax [no] l2tp shutdown destination { *destinationName* |
[virtual-router *vrName*] ip *ipAddress* }

- *destinationName*—Name the router assigns to the LNS
- *vrName*—Name of the virtual router on which the destination exists
- *ipAddress*—IP address of the LNS

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp shutdown session

Description Closes a specific session. The **no** version has no effect because all L2TP sessions are dynamic and cannot be restarted after they have been shut down.

Syntax [no] l2tp shutdown session { *destinationName* |
[virtual-router *vrName*] ip *ipAddress sessionName* }

- *destinationName*—Name that the router assigns to the LNS
- *vrName*—Name of the virtual router on which the destination exists
- *ipAddress*—IP address of the LNS
- *sessionName*—Name of the session

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp shutdown tunnel

Description Closes all sessions in a tunnel, and prevents the creation of new sessions in that tunnel. This command works in conjunction with the **l2tp drain tunnel** command. Both commands affect the status of the administrative state of L2TP on the tunnel; the **l2tp shutdown tunnel** command sets the administrative state to disabled. The **no** version enables the creation of new sessions in that tunnel.

Syntax [no] l2tp shutdown tunnel { *destinationName* |
[virtual-router *vrName*] ip *ipAddress tunnelName* }

- *destinationName*—Name the router assigns to the LNS
- *vrName*—Name of the virtual router on which the tunnel exists
- *ipAddress*—IP address of the LNS
- *tunnelName*—Name of the tunnel

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp switch-profile

Description Creates and names an L2TP tunnel switch profile. This command accesses L2TP Tunnel Switch Profile Configuration mode, from which you can define the L2TP tunnel switching behavior for the interfaces to which this profile is assigned. The **no** version removes the named tunnel switch profile from the router.

Syntax [no] l2tp switch-profile *profileName*

- *profileName*—Name of the tunnel switch profile; a string of up to 64 alphanumeric characters

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

l2tp tunnel default-receive-window

Description Configures the default L2TP receive window size (RWS) for a tunnel on both the LAC and the LNS. The RWS is the number of packets that the peer can transmit without receiving an acknowledgment from the router. This command affects only those tunnels configured on the router after the command is issued; it has no effect on previously configured tunnels. The **no** version restores the default behavior, in which the router chooses the default RWS.

Syntax l2tp tunnel default-receive-window *receiveWindowSize*

no l2tp tunnel default-receive-window

- *receiveWindowSize*—Default receive window size, in packets; currently, the only supported value is 4

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp tunnel idle-timeout

Description Configures the tunnel idle-timeout value. Creates persistent tunnels by setting the value to 0. There is no **no** version.

Syntax l2tp tunnel idle-timeout [*timeOutValue*]

- *timeOutValue*—Number in the range 0–86400 seconds

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp tunnel short-drain-timeout

Description Configures the amount of time a disconnected LAC L2TP tunnel waits (the drain timeout) before restarting after a restart request is received. The **no** version restores the default setting.

Syntax l2tp tunnel short-drain-timeout [*timeOutValue*]

no l2tp tunnel short-drain-timeout

- *timeOutValue*—Short drain timeout in seconds, in the range 0–31; default value is 2 seconds

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

l2tp tunnel-switching

Description Enables tunnel switching chassis-wide. The **no** version restores the default, disabling tunnel switching.

Syntax [no] l2tp tunnel-switching

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp tunnel test

Description Allows you to force the establishment of a tunnel in order to verify the tunnel configuration and to verify connectivity. There is no **no** version.

Syntax l2tp tunnel test *authenticateName* [*tunnelName*]

- *authenticateName*—Authenticate name used to look up tunnel test parameters
- *tunnelName*—Name of the tunnel to be tested

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

l2tp unlock destination

Description Forces L2TP to immediately unlock the specified L2TP destination and return the destination to the available state. Any remaining lockout time and the lockout test setting (if configured) are not taken into account. There is **no** no version.

Syntax l2tp unlock destination { *destinationName* | [virtual-router *vrName*] ip *ipAddress* }

- *destinationName*—Name of the L2TP destination
- *vrName*—Name of the virtual router on which the destination exists
- *ipAddress*—IP address of the destination

Mode Privileged Exec (at privilege level 10 or higher)

Release Information Command introduced in JUNOSe Release 7.2.0.

l2tp unlock-test destination

Description Forces L2TP to disregard any remaining lockout time and immediately begin the lockout test procedure for the specified destination. If lockout testing is not enabled, this command immediately unlocks the destination. There is **no** no version.

Syntax l2tp unlock-test destination { *destinationName* | [virtual-router *vrName*] ip *ipAddress* }

- *destinationName*—Name of the L2TP destination
- *vrName*—Name of the virtual router on which the destination exists
- *ipAddress*—IP address of the destination

Mode Privileged Exec (at privilege level 10 or higher)

Release Information Command introduced in JUNOSe Release 7.2.0.

l2tp weighted-load-balancing

Description Allows you to use a weighted load balancing scheme for session distribution. The **no** version restores the default behavior, wherein the session load of a chassis is distributed evenly across all tunnels defined to be at the same preference level.

Syntax [no] l2tp weighted-load-balancing

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

l2vpn control-word

Description Indicates that the local preference is to use the control word for the layer 2 packets encapsulated in the MPLS packets that are sent to the remote PE router. The **no** version indicates that the local preference is to not use the control word for the layer 2 packets encapsulated in the MPLS packets that are sent to the remote PE router. The **default** version accepts the preference determined by the interface stack on which the MPLS interface is stacked.

Syntax [no | default] l2vpn *l2VpnName* control-word

- *l2VpnName*—Name of the L2VPN instance

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

Related Topics

- Configuring an L2VPN Instance

l2vpn encapsulation-type

Description Creates an L2VPN instance and configures the encapsulation type for interfaces in that L2VPN instance. The **no** version removes the L2VPN instance.

Syntax l2vpn *l2VpnName* encapsulation-type { atm-aal5-vcc | atm-vcc-cell | cisco-hdlc | ethernet | frame-relay | ppp | vlan }

no l2vpn *l2VpnName*

- *l2VpnName*—Name of the L2VPN instance
- atm-aal5-vcc—Specifies ATM AAL5 VCC encapsulation
- atm-vcc-cell—Specifies ATM VCC Cell encapsulation
- cisco-hdlc—Specifies Cisco HDLC encapsulation
- ethernet—Specifies Ethernet encapsulation
- frame-relay—Specifies Frame-Relay encapsulation
- ppp—Specifies PPP encapsulation
- vlan—Specifies VLAN encapsulation

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

Related Topics

- Configuring an L2VPN Instance

l2vpn local-site-id remote-site-id

Description Configures a layer 2 interface as a member of a layer 2 VPN by specifying local and remote customer site IDs. The **no** version removes the interface as a member of the layer 2 VPN.

Syntax l2vpn *l2VpnName* local-site-id *localSiteId* remote-site-id *remoteSiteId*

no l2vpn *l2VpnName*

- *l2VpnName*—Name of the L2VPN instance
- *localSiteId*—Numerical identifier for the local site in the L2VPN, in the range 1–65535
- *remoteSiteId*—Numerical identifier for the remote site in the L2VPN, in the range 1–65535

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

Related Topics

- Configuring Customer-facing Interfaces in the L2VPN Instance

l2vpn rd

Description Specifies the unique two-part route distinguisher for the L2VPN instance. Once configured, you cannot change or remove the route distinguisher. There is no **no** version.

Syntax l2vpn *l2VpnName* rd *distinguisher*

- *l2VpnName*—Name of the L2VPN instance
- *distinguisher*—Unique two-part identifier of the format *number1*:*number2* where:
  - *number1*—AS number or an IP address
  - *number2*—Unique integer; 32 bits if *number1* is an AS number; 16 bits if *number1* is an IP address

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

Related Topics

- Configuring an L2VPN Instance

l2vpn route-target

Description Creates or adds to a list of L2VPN extended communities that the router uses to determine which routes are imported by the specified L2VPN instance. The **no** version removes a route target from the specified list.

Syntax [no] l2vpn *l2VpnName* route-target { import | export | both } *extendedCommunity*

- *l2VpnName*—Name of the L2VPN instance
- import—Adds the route target to the import list for the specified L2VPN instance; the L2VPN accepts only routes that have at least one route target that matches a route target in the import list
- export—Adds the route target to the export list for the specified L2VPN instance; all routes advertised from this L2VPN are associated with the route targets in the export list; at least one route target in the export list must match a route target in the import list of a L2VPN receiving the route for the route to be accepted by the L2VPN.
- both—Adds the route target to both the import list and export list for the specified L2VPN instance; recommended setting for an L2VPN instance
- *extendedCommunity*—Two-part number of the format *number1*:*number2* that identifies an extended community of L2VPNs where:
  - *number1*—AS number or an IP address
  - *number2*—Unique integer; 32 bits if *number1* is an AS number; 16 bits if *number1* is an IP address

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

Related Topics

- Configuring an L2VPN Instance

l2vpn sequencing

Description Specifies that the local preference is to include nonzero sequence numbers with the control word, enabling the remote PE to detect out-of-order packets. This command has no effect if no control word is sent in the packets. The router always accepts zero sequence numbers and checks the order of nonzero sequence numbers of MPLS packets received from the remote PE. Any out of order packets are dropped, regardless of whether sequencing is configured. The **no** version specifies that the sequencing number in the control word is set to zero, instructing the remote PE router to not attempt to detect out-of-order packets; has no effect if no control word is sent in the packets. The **default** version accepts the preference determined by the interface stack on which the MPLS shim interface is stacked.

Syntax [no | default] l2vpn *l2VpnName* sequencing

- *l2VpnName*—Name of the L2VPN instance

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

Related Topics

- Configuring an L2VPN Instance

l2vpn site-name site-id

Description Configures a name and a unique site identifier for a customer site that belongs to the specified L2VPN instance. In an L2VPN configuration, each customer site is represented by one or more customer edge (CE) devices located at the edge of the customer's network. The **no** version removes the site name and site identifier from the L2VPN instance.

Syntax [no] l2vpn *l2VpnName* site-name *siteName* site-id *siteId*

- *l2VpnName*—Name of the L2VPN instance
- *siteName*—Name of the site; string of up to 128 alphanumeric characters
- *siteId*—Numerical identifier for the site, in the range 1–65535; must be unique across the L2VPN domain

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

Related Topics

- Configuring an L2VPN Instance

l2vpn site-range

Description Configures the maximum number of customer sites that can participate in the specified L2VPN. In an L2VPN configuration, each customer site is represented by a customer edge (CE) device located at the edge of the customer's network. The **no** version restores the default site range, 1.

Syntax l2vpn *l2VpnName* site-range *siteRange*

no l2vpn *l2VpnName* site-range

- *l2VpnName*—Name of the L2VPN instance
- *siteRange*—Maximum number of sites that can participate in the L2VPN domain, in the range 1–65535; default value is 1

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

Related Topics

- Configuring an L2VPN Instance

lacp

Description Configures whether an Ethernet link in an IEEE 802.3ad link aggregation group (LAG) bundle participates actively or passively in the Link Aggregation Control Protocol (LACP). LACP controls the transmission of protocol data units (PDUs) to exchange information between partner links in a LAG bundle. By default, Ethernet links do not send LACP PDUs. The **no** version restores the default behavior.

Syntax lacp { active | passive }

no lacp

- active—Causes the Ethernet link to always transmit LACP PDUs, regardless of whether its partner link is set to active or passive LACP participation
- passive—Causes the Ethernet link to transmit LACP PDUs only when it receives LACP PDUs from its partner link

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

lacp port-priority

Description Sets the priority for an Ethernet member link, also known as an Ethernet port, in an IEEE 802.3ad link aggregation group (LAG) bundle. The member link with the lowest numerical priority value has the highest priority. The Ethernet member link with the highest priority is selected first to join the LAG bundle. The **no** version restores the default priority value, 32768.

Syntax lacp port-priority *portPriority*

no lacp port-priority

- *portPriority*—Priority value; integer in the range 0–65535; default value is 32768

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

lag dos-protection-group

Description Attaches a lag denial of service (DoS) protection group to an interface. The **no** version removes the attachment of the DoS protection group from the interface.

Syntax lag dos-protection-group *groupName*

no lag dos-protection-group

- *groupName*—Name of the DoS protection group; string of up to 31 alphanumeric characters

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

lease

Description Specifies the time period for which the supplied IP address is valid. The **no** version restores the default lease time, 30 minutes.

NOTE: Ensure that DHCP clients have a minimum lease of 120 minutes before you begin a unified in-service software upgrade to prevent unwanted lease expirations due to the length of the unified ISSU process.

Syntax lease { *days* [*hours* [*minutes* [*seconds*]]] | infinite }

no lease

- *days*—Number of days for which the IP address is valid; in the range 0–32768
- *hours*—Number of hours for which the IP address is valid in the range 0–24
- *minutes*—Number of minutes for which the IP address is valid; in the range 0–60
- *seconds*—Number of seconds for which the IP address is valid; in the range 0–60
- infinite—Assigns a lease that does not expire

Mode DHCP Local Pool Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

license bfd

Description Specifies the Bidirectional Forwarding Detection (BFD) license provided by your sales representative or Juniper Networks Customer Service. The **no** version disables the license.

Syntax license bfd *licenseKey*

no license bfd

- *licenseKey*—Unique string of up to 15 alphanumeric characters that we provide to you

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

license b-ras

Description Specifies the B-RAS license provided by your sales representative or Juniper Networks Customer Service. Depending on the license purchased, the router supports up to 2,000, 4,000, 8,000, 16,000, or 20,000 authenticated PPP or SRC sessions. The **no** version disables the license.

Syntax license b-ras *licenseKey*

no license b-ras

- *licenseKey*—Unique string of up to 15 alphanumeric characters that we provide to you

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

license firewall maximum-virtual-routers

Description Specifies the firewall license key provided by your sales representative or Juniper Networks Customer Service. Firewall licensing is enforced according to a tiered structure based on the number of VR/VRF instances you can configure for enhanced firewall. Contact your sales representative or Juniper Networks Customer Service for details. The **no** version disables the license.

Syntax license firewall maximum-virtual-routers *licenseKey*

no license firewall maximum-virtual-routers

- *licenseKey*—Unique string of alphanumeric characters that we provide to you

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

license ipsec-tunnels

Description Specifies the IPSec license key provided by your sales representative or Juniper Networks Customer Service. Depending on the license purchased, the router supports up to 5,000, 7,500, or 10,000 tunnels per chassis. The **no** version disables the license.

Syntax license ipsec-tunnels *licenseKey*

no license ipsec-tunnels

- *licenseKey*—Unique string of alphanumeric characters that we provide to you

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

license ipv6

Description Specifies the IPv6 license key provided by your sales representative or Juniper Networks Customer Service. The **no** version disables the license.

Syntax license ipv6 *licenseKey*

no license ipv6

- *licenseKey*—Unique string of alphanumeric characters that we provide to you

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

license l2tp-session

Description Specifies the L2TP license key provided by your sales representative or Juniper Networks Customer Service. You can use the license on ERX-1440 routers, E120 routers, and E320 routers to increase the number of supported L2TP sessions from 16,000 to 32,000. The **no** version removes the license.

NOTE: This command is deprecated and might be removed completely in a future release.

JUNOSe software no longer requires you to configure a license to enable support for 32,000 L2TP sessions. The ERX-1440 routers, E120 routers, and E320 routers support 32,000 L2TP sessions by default; all other models support a maximum of 16,000 L2TP sessions.

Although the **license l2tp-session** command remains in the CLI, the command has no effect on the actual enforced limit.

Syntax license l2tp-session *licenseKey*

no license l2tp-session

- *licenseKey*—Unique string of alphanumeric characters that we provide to you

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

license mobile-ip home-agent

Description Configures the license key to enable a home agent. The **no** version does not change any existing Mobile IP configurations such as deleting the existing bindings or preventing any new registrations, but disables the license key. You cannot modify, but only delete, the Mobile IP configurations after enabling the **no** version. For example, if you disable the home agent and delete all existing bindings, you cannot re-enable it until a valid license is provided.

Syntax license mobile-ip home-agent *licenseKey*

no license mobile-ip home-agent

- *licenseKey*—Unique alphanumeric license key, up to a maximum of 16 alphanumeric characters, to enable a Mobile IP home agent configuration

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 9.0.0.

license nat

Description Specifies the NAT license key provided by your sales representative or Juniper Networks Customer Service. The **no** version disables the license.

Syntax license nat *licenseKey*

no license nat

- *licenseKey*—Unique string of alphanumeric characters that we provide to you

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

license service-management

Description Specifies the Service Manager license key provided by your sales representative or Juniper Networks Customer Service. The **no** version removes the license.

Syntax license service-management *licenseKey*

no license service-management

- *licenseKey*—Unique string of alphanumeric characters that Juniper Networks provides to you

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

lifetime

Description From IKE Policy Configuration mode, associates a lifetime with IKE SAs established with this IKE policy. The **no** version restores the lifetime to its default, 28800 seconds (8 hours).

From IPSec Transport Profile Configuration mode, sets a lifetime range for the IPSec connection in volume of traffic and/or in seconds. If the client PC offers a lifetime within this range, the router accepts the offer. The **no** version returns the lifetime to the default, 100000–4294967295 KB and 900–86400 seconds (1–24 hours).

From IPSec Tunnel Profile Configuration mode, specifies the IPSec lifetime range used on IPSec security association negotiations. The **no** version returns the lifetime to its default, 28800 seconds (8 hours) and no traffic volume limit.

Syntax To set an IKE lifetime:

lifetime *seconds*

no lifetime

- *seconds*—Number of seconds an SA lives before expiring; in the range 900–86400 seconds

To set an IPSec transport profile lifetime:

lifetime { kilobytes *lowKilobytes highKilobytes* | seconds *lowSeconds highSeconds* | seconds *lowSeconds highSeconds* kilobytes *lowKilobytes highKilobytes* }

no lifetime

- *lowKilobytes*—Lower range of the lifetime in kilobytes; in the range 100000–4294967295 KB; default value is 100000
- *highKilobytes*—Higher range of the lifetime in kilobytes; in the range 100000–4294967295 KB; default value is 4294967295
- *lowSeconds*—Lower range of the lifetime in seconds; in the range 300–86400 seconds; default value is 3600
- *highSeconds*—Higher range of the lifetime in seconds; in the range 300–86400 seconds; default value is 86400

To set an IPSec tunnel profile lifetime:

lifetime { seconds *lowSeconds highSeconds* | kilobytes *lowKilobytes highKilobytes* | seconds *lowSeconds highSeconds* kilobytes *lowKilobytes highKilobytes* }

no lifetime

- *lowSeconds*—Lower range of the lifetime in seconds; in the range 900–86400 seconds; default value is 3600
- *highSeconds*—Higher range of the lifetime in seconds; in the range 900–86400 seconds; default value is 86400
- *lowKilobytes*—Lower range of the lifetime in kilobytes; in the range 100000–4294967295 KB; default value is 100000
- *highKilobytes*—Higher range of the lifetime in kilobytes; in the range 100000–4294967295 KB; default value is 4294967295

Mode IKE Policy Configuration, IPSec Transport Profile Configuration, IPSec Tunnel Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
IPSec Tunnel Profile Configuration mode added in JUNOSe Release 7.3.0.

line

Description Opens virtual terminal lines or the console line and allows you to configure the lines. By default five vty lines (0–4) are open. The **no** version removes a vty line or a range of lines from your configuration; users will not be able to run Telnet, SSH, or FTP to lines that you remove. When you remove a vty line, the router removes all lines above that line. For example, **no line vty 6** causes the router to remove lines 6 through 29. You cannot remove lines 0 through 4.

NOTE: Once lines are open, login is enabled by default. Before users can access the lines, you must configure a password, disable login using the **no login** command, or configure AAA authentication on the line.

Syntax line { console *lineNumber* | vty *lineRangeStart* [*lineRangeEnd*] }

no line vty *lineNumber*

- console—Specifies the console line
- vty—Specifies vty lines
- *lineNumber*—Number of a single line; 0 for the console line
- *lineRangeStart*—Start of the vty line range; a number from 0–29
- *lineRangeEnd*—End of the vty line range; a number from 0–29

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

link

Description Links the pool currently being configured to another DHCP local address pool. The linked pool acts as a backup pool. The **no** version removes the link.

Syntax link *poolName*

no link

- *poolName*—Name of pool to which you want to link the pool currently being configured

Mode DHCP Local Pool Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

link failover force

Description Forces a GE I/O module to switch from one port to another. There is no **no** version.

Syntax link failover force

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

link failover timeout

Description Specifies the time that the router waits for a port on a GE I/O module to become active before the router switches to the redundant port. The **no** version restores the default setting, in which the router sets this time automatically.

Syntax link failover timeout *failTime*

no link failover timeout

- *failTime*—Time that the router waits; in the range 100–10000 ms

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

link selection

Description Disables redundancy on a GE I/O module by allowing operation on the specified port only. The **no** version restores the default situation, in which port redundancy is enabled.

Syntax link selection { primary | secondary }

no link selection

- primary—Allows operation on only the primary port
- secondary—Allows operation on only the redundant port

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

list

Description Lists the currently configured MPLS explicit path (optionally starting at a particular index). There is no **no** version.

Syntax list [*index*]

- *index*—Number of a node in an ordered set of abstract nodes set with the **index** command; in the range 1–255

Mode Explicit Path Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

load-interval

Description Sets the time interval at which the router calculates bit rates and packet rates for an interface. The **no** version restores the default value, 300 seconds. This command is not available for the Ethernet interface on the SRP module.

Syntax load-interval *timeInterval*

no load-interval

- *timeInterval*—Multiple of 30 seconds; in the range 30–300

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

load-rebalance

Description Configures the QoS algorithm for rebalancing the links in an 802.3ad link aggregation group (LAG). To configure the algorithm to dynamically rebalance the LAG using existing parameters, issue the **load-rebalance** command without any keywords. The **no** version restores the default parameters.

Syntax [no] load-rebalance [period *rebalancePeriod* start-threshold *rebalanceStartThreshold* [percent | subscribers] stop-threshold *rebalanceStopThreshold* [percent | subscribers] maximum-improvement *rebalanceMaximumImprovement* [percent | subscribers]]

- *rebalancePeriod*—Time period for rebalancing in seconds; in the range 0–86400; the default is 60 seconds
- *rebalanceStartThreshold*—Amount of imbalance in the LAG that triggers the algorithm to start rebalancing; the default is 0 percent
  - percent—Specifies that the threshold is measured as a percentage of the average load per link; in the range 0–100
  - subscribers—Specifies that the threshold is measured by the number of subscribers away from the average subscriber count per link in the LAG; in the range 0–100000
- *rebalanceStopThreshold*—Amount of imbalance in the LAG that triggers the algorithm to stop rebalancing; the default is 0 percent
  - percent—Specifies that the amount of imbalance is measured as a percentage of the average load per link; in the range 0–100
  - subscribers—Specifies that the threshold is measured by the number of subscribers away from the average subscriber count link in the LAG; in the range 0–100000
- *rebalanceMaximumImprovement*—Maximum number of links in the LAG to rebalance; the default is 100 percent
  - percent—Specifies that the maximum number of links is measured as a percentage of the total links; in the range 0–100
  - subscribers—Specifies that the maximum number of links is measured by the number of subscribers; in the range 0–100000

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

Related Topics

- Configuring Load Rebalancing Parameters for 802.3ad Link Aggregation Groups

local host

Description Configures an L2TP local hostname to be used with a remote host. The **no** version removes the local hostname from use with a remote host.

Syntax local host *hostname*

no local host

- *hostname*—L2TP local hostname; string of up to 64 characters (no spaces)

Mode L2TP Destination Profile Host Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

local-interface

Description Maps a domain name to a loopback interface. The **no** version deletes the mapping to the user domain name.

NOTE: In Domain Map Configuration mode, this command is replacing the deprecated **loopback** command for mapping a domain name to a loopback interface. The **loopback** command may be removed completely from the Domain Map Configuration mode in a future release.

Syntax local-interface { *interfaceType interfaceSpecifier* | *ipAddress* [*ipAddressMask*] }

no local-interface

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *ipAddress*—IP address of the loopback interface
- *ipAddressMask*—IP address mask of the loopback interface

Mode Domain Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

local ip address

Description From L2TP Destination Profile Host Configuration mode, configures a local IP address for use with a remote host. The **no** version removes the local IP address from use with a remote host.

From IPSec Transport Profile Configuration mode, specifies the local endpoint of the IPSec transport connection. It also enters Local IPSec Transport Profile Configuration mode. The **no** version deletes the local IP address.

From IPSec Tunnel Profile Configuration mode, specifies the given local IP address as a server address. The router continues to monitor UDP port 500 for incoming user login requests (that is, IKE source address negotiations). When using global preshared keys, consider the following points:

- Global preshared keys enable a group of users to share a single authentication key. Using a shared key for a group of users simplifies the administrative job of setting up keys. However, changing or removing a preshared key for one user (for security reasons) affects other users with the same key.
- Specific keys for individual users take precedence over global keys assigned to the same user. In other words, if a user has both an assigned specific key and a global key that user must use the specific key or authentication fails.
- Avoid specifying the same local endpoint and virtual router in the same profile. Local endpoint and virtual router values override each other. The last value set in the profile is the value used.

The **no** version causes the router to stop monitoring UDP port 500 for user requests and removes any preshared key associations with the local IP address.

Syntax From L2TP Destination Profile Host Configuration mode:

local ip address *ipAddress*

no local ip address

- *ipAddress*—IP address

From IPSec Transport Profile Configuration mode:

[no] local ip address *ipAddress*

- *ipAddress*—Local endpoint for the IPSec transport connection

From IPSec Tunnel Profile Configuration mode:

local ip address *ipAddress* { pre-share *keyString* | pre-share-masked *maskedKeyString* }

no local ip address

- *ipAddress*—Local endpoint for the IPSec transport connection
- *keyString*—Key value in ascii format
- *maskedKeyString*—Key value in ascii format

Mode IPSec Transport Profile Configuration, IPSec Tunnel Profile Configuration, L2TP Destination Profile Host Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
IPSec Tunnel Profile Configuration mode added in JUNOSe Release 7.3.0.

local ip identity

Description Overrides the local identity (phase 2 identity) used for IPSec security association negotiations. For IPSec negotiations to succeed, the local and peer identities at one end of the tunnel must match the peer and local identities at the other end (respectively). The **no** version restores the default value, wildcard network value 0.0.0.0/0.

Syntax local ip identity
{ address *ipAddress* | range *ipRangeLow ipRangeHigh* | subnet *netAddress netMask* }

no local ip identity

- *ipAddress*—IP address used as the local identity for IPSec security association negotiations
- *ipRangeLow*—Low end of a range used as the local identity for IPSec security association negotiations
- *ipRangeHigh*—High end of a range used as the local identity for IPSec security association negotiations
- *netAddress*—IP network address used as the local identity for IPSec security association negotiations
- *netMask*—IP network mask used as the local identity for IPSec security association negotiations

Mode IPSec Tunnel Profile Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

local ip network

Description Specifies networks that are reachable through the IPSec tunnel. You can configure up to 16 networks for this method of "split-tunneling." The **no** version removes the specified network from the reachable list.

Syntax local ip network *ipNetwork ipMask*

no local ip network

- *ipNetwork*—IP network reachable through the secure connection
- *ipMask*—IPv4 subnetwork mask for the IP network

Mode IPSec Tunnel Profile Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

log

Description Defines a IP policy rule that configures logging settings for packets that match the current classifier control list. The **no** version removes a log rule from a policy list; the **suspend** keyword temporarily suspends the rule; the **no suspend** version resumes application of a suspended rule.

NOTE: This command replaces the Policy List Configuration version of the **log** command, which may be removed completely in a future release.

Syntax [no] [suspend] log

Mode Classifier Group Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Policy Rule Precedence

log-adjacency-changes

Description Generates a log message when the state of an IS-IS adjacency or an OSPFv3 neighbor changes. For OSPFv2 neighbors, use the **ospf log-adjacency-changes** command. Manipulates the same log as the Global Configuration **log** commands. The **no** version disables this function.

Syntax For IS-IS adjacencies:

log-adjacency-changes [severity { *severityValue* | *severityNumber* }] [verbosity *verbosityLevel*]

no log-adjacency-changes

For OSPFv3 adjacencies:

[no] log-adjacency-changes [severity { *severityValue* | *severityNumber* }] [verbosity *verbosityLevel*]

- severity—Sets minimum severity of the log messages for this category; described either by a descriptive term—*severityValue*—or by a corresponding number—*severityNumber*—in the range 0–7. The lower the number, the higher the priority:
  - emergency *or* 0—System unusable
  - alert *or* 1—Immediate action needed
  - critical *or* 2—Critical condition exists
  - error *or* 3—Error condition
  - warning *or* 4—Warning condition
  - notice *or* 5—Normal but significant condition
  - info *or* 6—Informational message
  - debug *or* 7—Debug message
- verbosity—Specifies the verbosity of this log category's messages
- *verbosityLevel*—Specifies the verbosity of the log category's messages; can be any of the following:
  - high—Verbose
  - low—Terse
  - medium—Moderate detail

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

log destination

Description Configures the logging of system messages. You can direct messages to a destination, limit the messages logged based on severity level, or limit the event categories for which messages are logged. The **no** versions restore default settings or reverse the effect of previous commands that limited event categories.

NOTE: You can display traffic logs—such as ipTraffic, icmpTraffic, tcpTraffic, and udpTraffic—only via the **show log data** command or from the *SRP module* console. You cannot redirect traffic logs elsewhere, such as to a system log or nonvolatile storage file, or to a Telnet session.

Syntax To specify the destination and severity of messages logged:

log destination { console | nv-file | syslog *ipAddress* [facility *facilityId*] } { severity { *severityValue* | *severityNumber* } | off }

no log destination [console | nv-file | syslog [*ipAddress*]]

To specify which event categories are logged to syslog:

log destination syslog *ipAddress* { include | exclude } *category* [*category*]*

no log destination syslog *ipAddress* { *include* | *exclude* } [*category*]*

- console—Configures or modifies logging to the local console
- nv-file—Configures or modifies logging to the nonvolatile log file; the nv-file can accept only events at a severity level of critical or higher in importance
- syslog—Configures or modifies logging to a system log server
- *ipAddress*—IP address of the system log application on a remote host
- facility—Specifies the system log facility on the host
- *facilityId*—Number in the range 0–7 that identifies the corresponding logging facility, local0–local7
- severity—Sets minimum severity of the log messages displayed; described either by a descriptive term—*severityValue*—or by a corresponding number—*severityNumber*—in the range 0–7. The lower the number, the higher the priority:
  - emergency *or* 0—System unusable
  - alert *or* 1—Immediate action needed
  - critical *or* 2—Critical condition exists
  - error *or* 3—Error condition
  - warning *or* 4—Warning condition
  - notice *or* 5—Normal but significant condition
  - info *or* 6—Informational message
  - debug *or* 7—Debug message

- off—Disables logging to this destination
- include—Sends only the specified event categories to the system log server
- exclude—Sends all event categories except those specified to the system log server

  Issuing an **include** command after an **exclude** command (or vice versa) overrides the earlier command.

  You can issue successive **include** commands or successive **exclude** commands. Successive commands expand the list of included or excluded categories.
- *category*—Log category; refer to the CLI online Help for available options
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

log destination syslog source

Description Specifies a source interface type and location for events logged to a system log server. Overrides the type and location of the actual source to enable server access behind firewalls. The **no** version restores the default state, which is to use the actual interface type and location of the source.

Syntax log destination syslog *ipAddress* source *interfaceType interfaceSpecifier*

no log destination syslog *ipAddress* source [*interfaceType interfaceSpecifier*]

- *ipAddress*—IP address of the system log application
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

log engineering

Description Enables engineering logs. The **no** version disables engineering logs.

Syntax [no] log engineering

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

log fields

Description Selects optional fields to be added to all logs. The **no** version disables the optional log fields.

Syntax log fields { timestamp | no-timestamp } { instance | no-instance } { calling-task | no-calling-task }

no log fields

- timestamp—Includes the timestamp in log messages
- no-timestamp—Does not include the timestamp in log messages
- instance—Includes the event ID in log messages
- no-instance—Does not include the event ID in log messages
- calling-task—Includes the logging task name in log messages
- no-calling-task—Does not include the logging task name in log messages

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

log filters

Description This command has only a **no** version. See the **no log filters** command for a complete description and syntax.

log here

Description Enables the current terminal as a log console. The **no** version disables logs destined for a console from being displayed on the current terminal.

Syntax [no] log here

Mode Global Configuration, Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

log severity

Description Sets the severity level for systemwide logs (that is, when no individual event category is specified) or for a specific event category. The **no** version returns severity changes to their default settings or the systemwide setting.

NOTE: After you change the log severity level for an individual log event category, you cannot use systemwide commands to subsequently change the severity level for that category. To change individually altered log event categories using systemwide commands, you must first change the log event back to its default setting.

Syntax log severity { *severityValue* | off | *severityNumber* }
[*eventCategory* [*instanceTree*] | *eventCategory instanceTree* | *eventCategory*]

no log severity [*severityValue* | off | *severityNumber*] [*eventCategory*
[filters | *instanceTree*] | *eventCategory* { filters | *instanceTree* } | *eventCategory* | *]

- *severityValue* and *severityNumber*—Minimum severity of the log messages displayed for the selected category; described either by a descriptive term—*severityValue*—or by a corresponding number—*severityNumber*—in the range 0–7. The lower the number, the higher the priority:
  - emergency *or* 0—System unusable
  - alert *or* 1—Immediate action needed
  - critical *or* 2—Critical condition exists
  - error *or* 3—Error condition
  - warning *or* 4—Warning condition
  - notice *or* 5—Normal but significant condition
  - info *or* 6—Informational message
  - debug *or* 7—Debug message
- off—Disables systemwide log severity for all default level event categories when no event category is specified or disables log severity for a specified event category
- *eventCategory*—Log category; refer to the CLI online Help for available options
- filters—Removes all log filters for the event category
- *instanceTree*—Log-specific filter parameters; refer to the CLI online Help for available options
- *—Resets all log severities, systemwide and individual, to default settings

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

log unlimit

Description Removes the limit on the number of outstanding buffers for an event category. The **no** version returns the number of buffers to the default value.

Syntax [no] log unlimit [*eventCategory*]

- *eventCategory*—Log category; refer to the CLI online Help for available options

Mode Global Configuration, Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

log verbosity

Description Sets the verbosity level for a selected category. The **no** version returns the log verbosity to the default value, low.

Syntax log verbosity *verbosityLevel* [*eventCategory*]

no log verbosity [*verbosityLevel*] [*eventCategory*]

- *verbosityLevel*—Verbosity for the log category:
  - low—Terse (default)
  - medium—Moderate detail
  - high—Verbose
- *eventCategory*—Log category; refer to the CLI online Help for available options

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

login

Description Requires you to log in with a password. The **no** version removes the password requirement and allows connections without a password.

NOTE: If you issue this command when no password has been configured, access to Telnet is refused.

Syntax [no] login

Mode Line Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

login authentication

Description Applies an AAA authentication list to the vty sessions that you specified for AAA authentication. The **no** version removes all authentication methods, which means the router accepts Telnet sessions without challenge.

Syntax login authentication *authListName*

no login authentication

- *authListName*—Authentication list name of up to 32 characters

Mode Line Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

logout subscribers

Description Logs out the authenticated PPP or DHCP local server users. There is no **no** version.

Syntax logout subscribers { all | username *userName* | domain *domainName* | virtual-router *vrName* | port *interfaceSpecifier* }

- all—Logs out all PPP or DHCP local server sessions
- *userName*—Active PPP or DHCP local server session whose names match the username
- *domainName*—Active PPP or DHCP local server session whose usernames have that domain name
- *vrName*—Active PPP or DHCP local server session whose interfaces are bound to a specific virtual router
- *interfaceSpecifier*—Location of the port with active PPP subscribers; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

loopback

Description Specifies the loopback mode for a module controller or interface. The **no** version clears all loopback on the module or interface (the default), or deletes the mapping to the user domain name.

NOTE: In Domain Map Configuration mode, this command has been replaced by the **local-interface** command and may be removed completely from Domain Map Configuration mode in a future release.

Syntax For module controllers, the options available vary depending on the module being configured.

CT3 module:

loopback { local | network | payload }

no loopback

[no] loopback remote

cOCx/STMx SONET controller (SONET/SDH section layer), OCx/STMx line modules:

loopback { local | network }

no loopback

COCX-F3 module:

loopback { local | network | payload }

no loopback

- local—Loops the data back toward the router; on supported line modules also sends an alarm indication signal (AIS) out toward the network.
- network payload—Loops the data toward the network after the framer has processed the data.
- network line—Loops the data toward the network before the data reaches the framer.
- remote—Sends a signal notifying the device at the remote end to activate or deactivate the line loopback.
- network—Loops the data toward the network before the data reaches the framer.
- payload—Loops the data toward the network after the framer has processed the data.

For interfaces; the options available vary depending on the interface being configured.

ATM interface (cannot be used on a subinterface):

loopback { diagnostic | line }

no loopback

POS interface:

[no] loopback { internal | line }

- diagnostic—Places the interface into internal loopback
- line—ATM interface: places the interface into external loopback; POS interface: connects the received network signal directly to the transmit network signal. When configured in line loopback mode, the router never receives data from the network.
- internal—Connects the local transmitted signal to the local received signal

Mode Controller Configuration, Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

lsp-gen-interval

Description Sets the minimum interval at which originated IS-IS link-state packets are generated on a per LSP basis. The **no** version restores the default value, 5 seconds.

Syntax lsp-gen-interval [level-1 | level-2] *seconds*

no lsp-gen-interval [level-1 | level-2]

- level-1—Sets interval for level 1 only
- level-2—Sets interval for level 2 only
- *seconds*—Number in the range 0–120; the minimum interval in seconds; default value is 5 seconds

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

lsp-mtu

Description Sets the maximum size of an IS-IS link-state packet generated by the software. The **no** version restores the default value, 1497 bytes.

Syntax lsp-mtu *bytes*

no lsp-mtu

- *bytes*—Number in the range 128–9180; the MTU size in bytes; default value is 1497

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

lsp-refresh-interval

Description Sets the link-state packet rate at which locally generated IS-IS link-state packets are periodically transmitted. The **no** version restores the default value, 900.

Syntax lsp-refresh-interval *seconds*

no lsp-refresh-interval

- *seconds*—Number in the range 1–65535; the refresh interval in seconds; default value is 900

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

macro

Description Executes a macro file, which can consist of one or more macros. If you do not use the *macroName* option to specify a macro, the command searches in the specified macro file for a macro named "start," and returns an error if the "start" macro is not found. If you do not specify *fileName*.mac, you must specify **name** *macroName*; the command then searches only in local memory for a file called *macroName*.mac that contains the *macroName* macro. There is no **no** version.

Syntax macro [test | verbose] { *fileName*.mac [*macroName* [*arg*]*] | name *macroName* [*arg*]* }

- test—Displays the output of the macro without issuing the commands to the router, and displays comments
- verbose—Echoes each command as the macro executes and displays comments
- *fileName*—Name of the file containing the macro; requires the .mac extension
- *macroName*—Name of a macro within the macro file
- *arg*—Zero or more arguments passed to the macro; if the argument contains a space or other special character, the argument must be enclosed within double quotation marks
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode All modes

Release Information Command introduced before JUNOSe Release 7.1.0.

map-class frame-relay

Description Creates a map class. Command is used when configuring Frame Relay end-to-end fragmentation and reassembly. The **no** version removes the map-class.

Syntax [no] map-class frame-relay *mapName*

- *mapName*—Name of the map class; use up to 64 characters

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

map-group

Description Associates a map list to an NBMA interface when configuring static mapping. The **no** version removes the association. Use in conjunction with the **map-list** command.

Syntax [no] map-group *name*

- *name*—Name of the map group

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

map-list

Description Creates a map list for an NBMA interface when configuring static mapping. The **no** version removes the map list. Use in conjunction with the **map-group** command.

Syntax [no] map-list *name*

- *name*—Name of the map list; a string of up to 31 characters

Mode Map List Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mark

Description Sets the precedence field of the ToS byte (for IPv4) or traffic class byte (for IPv6) in the IP header to a specified value for packets that match the current classifier control list. This command is not tied to a rate limit profile, but marks packets based on a classifier control list. The **no** version removes the mark rule from the policy list; the **suspend** version temporarily suspends the mark rule; the **no suspend** version resumes application of a suspended rule.

NOTE: This command replaces the Policy List Configuration mode version of the **mark** command, which may be removed completely in a future release.

Syntax For IPv4:

[no] [suspend] mark { *tosByteValue* mask *maskValue* | tos-precedence *tosPrecNum* | tos *tosNum* | dsfield *dsFieldNum* } profile *colorMarkProfileName* }

- *tosByteValue*—ToS byte value to be assigned to packets; in the range 0–255
- *maskValue*—Mask to be used when applying ToS byte values to packets; in the range 1–255
- *tosPrecNum*—ToS precedence value to be assigned to packets; in the range 0–7
- *tosNum*—ToS value to be assigned to packets; in the range 0–255
- *dsFieldNum*—DS field value to be assigned to packets; in the range 0–63
- *colorMarkProfileName*—Name of the color-mark profile (up to 40 alphanumeric characters)

For IPv6:

[no] [suspend] mark { *tcByteValue* mask *maskValue* | tc-precedence *tcPrecNum* | tcfield *tcFieldNum* | dsfield *dsFieldNum* } profile *colorMarkProfileName* }

- *tcByteValue*—Traffic class field value to be assigned to packets; in the range 0–255
- *maskValue*—Mask to be used when applying traffic class field values to packets; in the range 1–255
- *tcPrecNum*—Traffic class field precedence value to be assigned to packets; in the range 0–7
- *tcFieldNum*—Traffic class field value to be assigned to packets; in the range 0–255
- *dsFieldNum*—DS field value to be assigned to packets; in the range 0–63
- *colorMarkProfileName*—Name of the color-mark profile (up to 40 alphanumeric characters)

Mode Classifier Group Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
colorMarkProfileName variable added in JUNOSe Release 7.2.0.

Related Topics

- Policy Rule Precedence

mark-clp

Description Marks the CLP bit in the ATM header of packets matching the current classifier control list. The **no** version removes the mark rule from a policy list; the **suspend** version temporarily suspends a mark rule; the **no suspend** version resumes application of a suspended rule.

Syntax [no] [suspend] mark-clp *clpValue*

- *clpValue*—Value of the CLP bit, 0 or 1

Mode Classifier Group Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

Related Topics

- Assigning Values to the ATM CLP Bit
- Policy Rule Precedence

mark-de

Description Marks the DE bit in the Frame Relay header of packets matching the current classifier control list. The **no** version removes the mark rule from a policy list; the **suspend** version temporarily suspends a mark rule; the **no suspend** version resumes application of a suspended rule.

NOTE: This command replaces the Policy List Configuration version of the **mark-de** command, which may be removed completely in a future release.

Syntax [no] [suspend] mark-de *deValue*

- *deValue*—Value of the DE bit; 0 or 1

Mode Classifier Group Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Assigning Values to the ATM CLP Bit
- Policy Rule Precedence

mark-exp

Description Defines an MPLS policy rule that specifies the value of the EXP bits. The **no** version removes the rule from the policy list; the **suspend** version temporarily suspends the policy rule; the **no suspend** version resumes application of a suspended rule.

NOTE: This command replaces the Policy List Configuration version of the **mark-exp** command, which may be removed completely in a future release.

Syntax [no] [suspend] mark-exp *expValue* [mask *expMask*] [profile *ProfileName*]

- *expValue*—EXP bit value assigned to packets; number in the range 0–7
- *expMask*—Mask applied to modify some of the EXP bits in IP packet; integer in the range 1–7
- *profileName*—Name of the rate-limit profile to be used in a policy (up to 40 alphanumeric characters)

Mode Classifier Group Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
profileName variable added in JUNOSe Release 7.2.0.

Related Topics

- Assigning Values to the ATM CLP Bit
- Policy Rule Precedence

mark-user-priority

Description Defines a policy rule that specifies the value of the 802.1p VLAN user priority bits. The **no** version removes the rule from the policy list; the **suspend** version temporarily suspends the policy rule; the **no suspend** version resumes application of a suspended rule.

NOTE: This command replaces the Policy List Configuration version of the **mark-user-priority** command, which may be removed completely in a future release.

Syntax [no] [suspend] mark-user-priority *userPriorityValue*

- *userPriorityValue*—EXP bit value assigned to packets; number in the range 0–7

Mode Classifier List Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Policy Rule Precedence

mask destination

Description Sets the minimum mask size for the destination address for the prefix and destination prefix aggregation caches. The **no** version restores the default mask size.

Syntax mask destination *destinationMinimumSize*

no mask destination

- *destinationMinimumSize*—Mask number in the range 1—32; default is 0

Mode Flow Cache Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

masked-key

Description Specifies the encrypted form of the preshared key that the router uses in IKE negotiations. Once you enter a preshared key, the router encrypts the key and displays it in masked form to increase the security of the key. If you need to reenter the key, you can enter it in its masked form using this command. There is no **no** version. To delete a key, use the **no** version of the **ipsec key manual** command.

Syntax masked-key *encryptedKey*

- *encryptedKey*—Encrypted key value; to obtain this value, enter the unencrypted key using the **key** command in IPSec Manual Key Configuration mode, and then display the masked version of the key with the **show configuration** command

Mode IPSec Manual Key Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mask source

Description Sets the minimum mask size for the source address for the prefix and source prefix aggregation caches. The **no** version restores the default mask size.

Syntax mask source *sourceMinimumSize*

no mask source

- *sourceMinimumSize*—Mask number in the range 1—32; default is 0

Mode Flow Cache Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

mask-val

Description Sets the mask value. For rate limits, use this command with the **committed-action**, **conformed-action**, and **exceeded-action** commands. For color-mark profiles, use the **mask-val** command in Color Mark Profile Configuration mode. The **no** version restores the default value, 255.

Syntax [no] mask-val *value*

- *value*—Mask value in the range 0–255. Use the following mask values to set the appropriate bits in the ToS field of the IP packet header:
  - IP Precedence—0xE0 (three most significant bits)
  - DS Field—0xFC (six significant bits)
  - TOS (IP) or Traffic Class field (IPv6)—0xFF (default)

Mode Color Mark Profile Configuration, Rate Limit Profile Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
Color Mark Profile Configuration mode added in JUNOSe Release 7.2.0.

Related Topics

- Creating a Two-Rate Rate-Limit Profile
- Setting the Mask Value for MPLS Rate-Limit Profiles
- Setting the Mask Value for IP and IPv6 Rate-Limit Profiles

match as-path

Description Matches a BGP AS path access list. The **no** version removes the match clause from a route map unless you specify a value, in which case only that value is removed from the match clause.

Syntax match as-path *listName* [*listName*]*

no match as-path [*listName*]*

- *listName*—Name of an AS path access list; string of up to 32 characters
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Policy List Configuration, Route Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

match community

Description Matches a BGP community list. The **no** version removes the match clause from a route map unless you specify a value, in which case only that value is removed from the match clause.

Syntax match community *listName* [*listName*]* [exact-match]

no match community [*listName*]* [exact-match]

- *listName*—String of up to 32 characters that designates a community list; you can optionally use a regular expression to specify the *listName*
- exact-match—Limits the match to a route that contains only the communities contained in the specified list; cannot be used with a community list specified by a regular expression
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Policy List Configuration, Route Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

match distance

Description Matches any routes that have the specified administrative distance. The **no** version removes the match clause from a route map unless you specify a value, in which case only that value is removed from the match clause.

NOTE: Matching a distance is useful only when applied to a route being redistributed out of a routing table. Distance is used to determine the relative preference between routes to the same prefix in order to pick the best route to that prefix in the routing table. Distance has no meaning in any other circumstance and any attempt to match distance will fail.

Syntax match distance *distance* [*distance*]*

no match distance [*distance*]

- *distance*—Administrative distance in the range 0–255
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Policy List Configuration, Route Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

match extcommunity

Description Matches a BGP extcommunity list. The **no** version removes the match clause from a route map unless you specify a value, in which case only that value is removed from the match clause.

Syntax match extcommunity *listName* [*listName*]* [exact-match]

no match extcommunity [*listName*]*

- *listName*—Name of the extended-community list
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line
- exact-match—Limits the match to a route that contains only the extended communities contained in the specified list; cannot be used with an extended community list specified by a regular expression

Mode Policy List Configuration, Route Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

match ip address

Description Matches any routes that have a destination network number address that is permitted by a standard or extended access list, a prefix list, or a prefix tree, or performs policy routing on packets. You cannot mix references in the same match command; you can only specify either access list(s), prefix list(s), or prefix tree(s). The **no** version removes the match clause from a route map unless you specify a value, in which case only that value is removed from the match clause.

Syntax match ip address { *accessListName* [*accessListName*]* | prefix-list *prefixListName* [*prefixListName*]* | prefix-tree *treeName* [*treeName*]* }

no match ip address [*accessListName*]* | prefix-list [*prefixListName*]* | prefix-tree [*treeName*]*

- *accessListName*—String of up to 32 alphanumeric characters
- *prefixListName*—Name of a single prefix list; string of up to 32 characters
- *treeName*—Name of a single prefix tree; string of up to 32 characters
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Policy List Configuration, Route Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

match ip next-hop

Description Matches any routes that have a next-hop router address passed by the specified access list, prefix list, or prefix tree. You cannot mix references in the same match command; you can only specify either access list(s), prefix list(s), or prefix tree(s). The **no** version removes the match clause from a route map unless you specify a value, in which case only that value is removed from the match clause.

Syntax match ip next-hop { *accessListName* [*accessListName*]* | prefix-list *prefixListName* [*prefixListName*]* | prefix-tree *treeName* [*treeName*]* }

no match ip next-hop [*accessListNumber*]* | prefix-list [*listName*]* | prefix-tree [*treeName*]*

- *accessListName*—Name of a single standard access list; string of up to 32 characters
- *prefixListName*—Name of a single prefix list; string of up to 32 characters
- *treeName*—Name of a single prefix tree; string of up to 32 characters
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Policy List Configuration, Route Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

match ipv6 address

Description Matches any routes that have a destination network number address that is permitted by an access list or prefix list. The **no** version removes all address match clauses from a route map unless you specify either an access list or a prefix list, in which case only the list match is removed from the route map.

Syntax match ipv6 address { *accessListName* [*accessListName*]* | prefix-list *prefixListName* [*prefixListName*]* }

no match ipv6 address [[*accessListName*]* | prefix-list [*prefixListName*]*]

- *accessListName*—String of up to 32 alphanumeric characters
- *prefixListName*—Name of a single prefix list; string of up to 32 characters
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Policy List Configuration, Route Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

match ipv6 next-hop

Description Matches any routes that have a next-hop router address passed by the specified access list or prefix list. The **no** version removes all next-hop match clauses from a route map unless you specify either an access list or prefix list, in which case only the list match is removed from the route map.

Syntax match ipv6 next-hop
{ *accessListName* [*accessListName*]* | prefix-list *prefixListName* [*prefixListName*]* }

no match ipv6 next-hop [[*accessListName*]* | prefix-list [*prefixListName*]*]

- *accessListName*—String of up to 32 alphanumeric characters
- *prefixListName*—Name of a single prefix list; string of up to 32 characters
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Policy List Configuration, Route Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

match ipv6 route-source

Description Matches any routes that are advertised from addresses contained in the specified prefix list. The **no** version removes all route-source match clauses from a route map unless you specify a prefix list, in which case only that prefix list match is removed from the route map.

Syntax match ipv6 route-source *prefixListName* [*prefixListName*]*

no match ipv6 route-source [*prefixListName*]*

- *prefixListName*—Name of a single prefix list; string of up to 32 characters
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Policy List Configuration, Route Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

match level

Description Matches import routes for the specified type. The **no** version removes the match clause from a route map unless you specify a value, in which case only that value is removed from the match clause.

Syntax match level { backbone | level-1 | level-1-2 | level-2 | stub-area }*

no match level [backbone | level-1 | level-1-2 | level-2 | stub-area]

- backbone—Specifies OSPF backbone area
- level-1—Specifies Level 1 area
- level-1-2—Specifies Level 1 and a level 2 area
- level-2—Specifies Level 2 subdomain
- stub-area—Specifies OSPF NSSA area
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Policy List Configuration, Route Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

match metric

Description Matches a route for the specified metric value. The **no** version removes the match clause from a route map unless you specify a value, in which case only that value is removed from the match clause.

Syntax match metric *metricValue* [*metricValue*]*

no match metric [*metricValue*]

- *metricValue*—Number in the range 0–4294967295, which indicates the preference value for a specific route in a route map
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Policy List Configuration, Route Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

match metric-type

Description Matches routes having the specified metric type. The **no** version removes the match clause from a route map.

Syntax match metric-type { external | internal }

no match metric-type [external | internal]

- external—Specifies IS-IS external metric type
- internal—Specifies IS-IS internal metric type

Mode Policy List Configuration, Route Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

match mpls-label

Description Matches on MPLS-labeled routes. By including this command in the appropriate route map (export, global export, global import route map), you can restrict importing or exporting to only labeled or only unlabeled routes. The **no** version removes the configuration.

Syntax [no] match mpls-label

Mode Route Map Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

match policy-list

Description References a policy list having the specified name. The **no** version removes the match clause from a route map.

Syntax match policy-list *listName* [*listName*]*

no match policy-list [*listName*]*

- *listName*—Name of a policy list; string of up to 32 characters
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Route Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

match route-type

Description Matches routes of the specified type. The **no** version removes the match clause from a route map unless you specify a value, in which case only that value is removed from the match clause.

Syntax

match route-type internal [intra | inter] [level-1 | level-2] [external [type-1 | type-2]] [level-1 | level-2]*

match route-type external [type-1 | type-2] [level-1 | level-2] [internal [intra | inter]] [level-1 | level-2]*

match route-type { level-1 | level-2 } [internal [intra | inter]] [level-1 | level-2] [external [type-1 | type-2]] [level-1 | level-2]*

match route-type { level-1 | level-2 } [external [type-1 | type-2]] [level-1 | level-2] [internal [intra | inter]] [level-1 | level-2]*

no match route-type [internal [intra | inter] | external [type-1 | type-2] | level-1 | level-2]

- internal—Specifies internal routes
  - intra—OSPF intra-area routes
  - inter—OSPF interarea routes
- external—Specifies external routes
  - type-1—OSPF type 1 external routes
  - type-2—OSPF type 2 external routes
- level-1—Specifies IS-IS level 1 routes
- level-2—Specifies IS-IS level 2 routes
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Policy List Configuration, Route Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

match-set summary prefix-tree

Description Sets condition for a route map that matches routes based on the network base address set in the specified prefix tree and summarizes them by preserving only the bits set in the prefix tree. The **no** version disables the use of the prefix tree by the route map.

Syntax

match-set summary prefix-tree *treeName*

no match-set summary prefix-tree

- *treeName*—Name of the prefix tree

Mode Route Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

match tag

Description Matches the tag value of the destination routing protocol. The **no** version removes the match clause from a route map unless you specify a value, in which case only that value is removed from the match clause.

Syntax match tag *tagValue* [*tagValue*]*

no match tag [*tagValue*]*

- *tagValue*—Number in the range 0–4294967295
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Policy List Configuration, Route Map Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

max-branches

Description Specifies the maximum number of branches the ANCP neighbor can have. The **no** version returns the maximum number of branches to its default value (unlimited branches).

Syntax [no] max-branches *maxBranches*

- *maxBranches*—Maximum number of branches allowed for the ANCP neighbor in the range 1–64000

Mode L2C Neighbor Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

max-discovery-table-entries

Description Specifies the maximum number of discovery table entries the ANCP neighbor can have. The **no** version returns the maximum number of table entries to its default value, 10,000 entries.

Syntax max-discovery-table-entries *maxEntries*

no max-discovery-table-entries

- *maxEntries*—Maximum number of discovery table entries allowed for the ANCP neighbor in the range 1–64000

Mode L2C Neighbor Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

maximum-paths

Description Controls the maximum number of equal-cost paths to the same destination that BGP, IS-IS, OSPF, or RIP can install in the routing table to support ECMP.

For BGP and RIP, issue the command from Router Configuration mode to apply the value to routes in the global RIB. In Address Family Configuration mode, issue the command only in the context of IPv4 unicast and IPv6 unicast address families to apply the value only to routes in the global RIB or the specific VRF for the IPv4 unicast or IPv6 unicast address family; This command is not supported for VPNv4 or VPNv6 address families.

For IS-IS or OSPF, issue the command from Router Configuration mode.

The **no** version restores the default value, 1 path for BGP or 4 paths for IS-IS, OSPF, and RIP.

Syntax For BGP:

maximum-paths [ibgp | eibgp] *maxPaths*

no maximum-paths [ibgp | eibgp] [*maxPaths*]

- ibgp—Specifies that the *maxPaths* value applies only to routes received from internal (IBGP) peers; if no keyword is specified, the *maxPaths* value applies only to routes received from external (EBGP) peers
- eibgp—Specifies that the *maxPaths* value applies to routes received from IBGP and EBGP peers; can be used only for VRF IPv4 unicast and IPv6 unicast address families
- *maxPaths*—Maximum number of parallel paths (routes) in the range 1–16

For IS-IS and RIP:

maximum-paths *maxPaths*

no maximum-paths

- *maxPaths*—Maximum number of parallel paths (routes) in the range 1–16

For OSPF:

maximum-paths *maxPaths*

no maximum-paths *maxPaths*

- *maxPaths*—Maximum number of parallel paths (routes) in the range 1–16

Mode Address Family Configuration, Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

maximum routes

Description Sets a warning threshold and maximum limit for routes imported by a PE router into a VRF from associated CE routers. The **no** version removes the limit and warning threshold.

Syntax maximum routes *limit* { *warningThreshold* | warning-only }

no maximum routes

- *limit*—Number in the range 1–4294967295 that when exceeded prevents routes from being imported into the routing table; when first exceeded generates a limit-exceeded log entry; if the route count fluctuates below and up to this value, an interval of five minutes must pass before another limit-exceeded log entry can be generated
- *warningThreshold*—Percentage in the range 1–100 that when first exceeded generates a warning-threshold-exceeded log entry; if the route count fluctuates around this value, an interval of five minutes must pass before another warning-threshold-exceeded log entry can be generated
- warning-only—Causes the *limit* to function as a *warningThreshold*; specifies that exceeding the *limit* generates a warning-threshold-exceeded log entry instead of a limit-exceeded log entry and permits routes exceeding the *limit* to be added to the routing table; if the route count fluctuates around the *limit*, an interval of five minutes must pass before another warning-threshold-exceeded log entry can be generated

Mode VRF Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

maximum-voql

Description Specifies a maximum value for the virtual output queue length (VOQL) for all simple shared shapers on the router. The VOQL tracks the amount of data over queued between simple shared-shaper rate periods. The **no** version removes the specified maximum VOQL value from all simple shared shapers on the router.

Syntax maximum-voql *maximumVoqlValue*

no maximum-voql

- *maximumVoqlValue*—Maximum value for the VOQL in the range 0–10000; default value is 4000

Mode QoS Shared Shaper Control Configuration

Release Information Command introduced in JUNOSe Release 8.0.0.

Related Topics

- Configuring Simple Shared Shaper Algorithm Variables

max-interfaces

Description For Tunnel Server Configuration mode, provisions the maximum number of tunnel-service interfaces to be used on a tunnel-server port. The **default** version restores the default configuration. On dedicated tunnel-server ports, the default configuration is **all-available** (the maximum number of tunnel-service interfaces that the tunnel-service module supports). On shared tunnel-server ports, the default configuration is zero tunnel-service interfaces provisioned. The **no** version unprovisions the tunnel-server port by reducing the number of provisioned tunnel-service interfaces to zero.

For IPSec Tunnel Profile Configuration mode, defines the maximum number of interfaces that the IPSec tunnel profile can instantiate. The **no** version returns the maximum value to zero (0) to indicate no limit to the number of interfaces that can be instantiated on this profile.

Syntax For Tunnel Server Configuration mode:

max-interfaces { *maxInterfacesValue* | all-available }

no max-interfaces

For IPSec Tunnel Profile Configuration mode:

max-interfaces *maxInterfacesValue*

no max-interfaces

- *maxInterfacesValue*—For Tunnel Server configuration, the maximum number of tunnel-service interfaces that can be provisioned on a tunnel-server port in the range 0–16000; For IPSec Tunnel Profile configuration, the maximum number of interfaces that the IPSec tunnel profile can instantiate in the range 0–32767
- all-available—Specifies that the maximum number of tunnel-service interfaces that can be provisioned on a tunnel-server port matches the maximum number supported by the tunnel-server module

Mode IPSec Tunnel Profile Configuration, Tunnel Server Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
IPSec Tunnel Profile Configuration mode added in JUNOSe Release 7.3.0.

max-lsp-lifetime

Description Sets the maximum time that IS-IS link-state packets persist without being refreshed. The **no** version restores the default time.

Syntax max-lsp-lifetime *seconds*

no max-lsp-lifetime

- *seconds*—Number in the range 1–65535; the lifetime of LSP in seconds; default value is 1200 seconds

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

max-response-failure

Description Terminates a test when the *maxFailureValue* is reached. That is, when there is no response to a designated number of operation requests, the test is terminated. This feature applies only to pathEcho entries. The **no** version restores the default value, five consecutive failures.

Syntax max-response-failure *maxFailureValue*

no max-response-failure

- *maxFailureValue*—Number of operation requests not responded to; 0 turns this feature off; default value is 5

Mode RTR Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

max-sessions

Description For RADIUS, specifies the number of outstanding requests to a server. The **no** version reverts to the default value.

For AAA domain map, and tunnel group tunnels , sets the maximum sessions per tunnel. The **no** version disables the feature. The **default** version sets the value to zero.

For L2TP, sets the maximum sessions allowed for destination and host profiles by the LNS. The **no** and **default** versions disable the feature.

Syntax For RADIUS:

max-sessions *sessionLimit*

no max-sessions

- *sessionLimit*—Maximum number of outstanding requests to a specific server in the range from 10 through to the maximum value; default value is 255

  For information about the number of concurrent RADIUS requests that the router supports for authentication and accounting servers, see *JUNOSe Release Notes*, *Appendix A*, *System Maximums*.

For AAA domain map and tunnel group tunnels:

max-sessions *maxSessionsPerTunnel*

{ no | default } max-sessions

- *maxSessionsPerTunnel*—Maximum number of sessions that can be configured on a tunnel in the range 0–4294967295; default value is zero

For L2TP:

max-sessions *maxSessionsPerProfile*

{ no | default } max-sessions

- *maxSessionsPerProfile*—Maximum number of sessions that can be established at the LNS for a destination or host profile; in the range from 1 through to a maximum of the chassis-wide limit; default value is the chassis-wide limit

  For information about the maximum number of L2TP sessions supported per chassis, see *JUNOSe Release Notes*, *Appendix A*, *System Maximums*.

Mode Domain Map Tunnel Configuration, L2TP Destination Profile Configuration, L2TP Destination Profile Host Configuration, RADIUS Configuration, Tunnel Group Tunnel Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mdl carrier

Description Specifies that a T3 interface is used in the carrier environment. The **no** version restores the default situation, in which an interface does not operate in the carrier environment.

Syntax [no] mdl carrier

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mdl string

Description Allows you to specify an MDL message on a T3 interface as defined in the ANSI T1.107a-1990 specification. The **no** version restores the default value to the specified MDL message or to all MDL messages.

Syntax mdl string { eic *eicValue* | fic *ficValue* | lic *licValue* | unit *unitValue* | pfi *pfiCode* | port *portValue* | generator *genValue* }

no mdl string { *eic* | *fic* | *lic* | *unit* | *pfi* | *port* | *generator* }

- *eicValue*—Equipment identification code; 1–10 characters; default value is the null value.
- *ficValue*—Frame identification code; 1–10 characters; default value is the null value.
- *licValue*—Line identification code; 1–11 characters; default value is the null value.
- *unitValue*—Unit identification code; 1–6 characters; default value is the null value.
- *pfiCode*—Facility identification code to send in the MDL path message; 1–38 characters; default value is the null value.
- *portValue*—Equipment port number to send in the MDL idle signal message; 1–38 characters; default value is the null value.
- *genValue*—Generator number to send in the MDL test signal message; 1–38 characters; default value is the null value.

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mdl transmit

Description Transmits an MDL message from a T3 interface. The **no** version disables transmission of the specified MDL message or all MDL messages.

Syntax [no] mdl transmit { path-id | idle-signal | test signal }

no mdl transmit

- path-id—Transmits a path identification message every second; default value is disabled
- idle-signal—Transmits an idle signal message every second; default value is disabled
- test-signal—Transmits a test signal message every second; default value is disabled

Mode Controller Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mdt-data-delay

Description Configures a timeout before switching to data MDT. The **no** version returns to the default.

Syntax mdt-data-delay *timeout*

no mdt-data-delay

- *timeout*—Timeout value measured in 0.1 seconds in the range 1-255 seconds; the default is 30

Mode IP PIM Data MDT Configuration

Release Information Command introduced in JUNOSe Release 8.2.0.

mdt-data-holddown

Description Configures the time in seconds before switching back to the default MDT group from the data MDT group. The **no** version returns to the default.

Syntax mdt-data-holddown *timeout*

no mdt-data-holddown

- *timeout*—Time before switching back to the default MDT group, in the range 1–300 seconds; the default is 60

Mode IP PIM Data MDT Configuration

Release Information Command introduced in JUNOSe Release 8.2.0.

mdt-data-timeout

Description Configures the time in seconds before leaving the data MDT group. The **no** version returns to the default.

Syntax mdt-data-timeout *timeout*

no mdt-data-timeout

- *timeout*—Time before leaving the data MDT group, in the range 1–1200 seconds; the default is 180

Mode IP PIM Data MDT Configuration

Release Information Command introduced in JUNOSe Release 8.2.0.

mdt-interval

Description Configures the time in seconds between successive MLD join TLVs. The **no** version returns to the default.

Syntax mdt-interval *time*

no mdt-interval

- *time*—Time between successive MLD join TLV in the range 1–300 seconds; the default is 60

Mode IP PIM Data MDT Configuration

Release Information Command introduced in JUNOSe Release 8.2.0.

medium ipv4

Description Specifies the medium type of a tunnel to IPv4 (the only medium type currently supported). The **no** version restores the default value, ipv4.

Syntax medium ipv4

no medium

Mode Domain Map Tunnel Configuration, Tunnel Group Tunnel Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

member interface

Description Adds a member VLAN or S-VLAN subinterface to a Martini layer 2 circuit associated with a load-balancing group. This command creates an MPLS shim interface and associates it with the group. The **no** version removes the member subinterface from the circuit. Repeat as needed to remove all member subinterfaces used by a load-balanced circuit, thereby deleting the circuit from the group.

Syntax [no] member interface *interfaceType interfaceSpecifier*

- *interfaceType*—One of the following interface types listed in *Interface Types and Specifiers* in *About This Guide*
  - serial
  - pos
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode L2 Transport Load-Balancing-Circuit Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring CE-Side Load Balancing for Martini Layer 2 Transport

member-interface

Description Adds a member interface, also known as a bundle member, to an MLPPP bundle, an MLFR bundle, or an IEEE 802.3ad link aggregation group (LAG) bundle. The **no** version removes the specified member interface from the bundle.

Syntax [no] member-interface *interfaceType interfaceSpecifier*

- *interfaceType*—One of the following interface types listed in *Interface Types and Specifiers* in *About This Guide*
  - serial (MLFR bundle or MLPPP bundle)
  - pos (MLFR bundle only)
  - fastEthernet (IEEE 802.3ad LAG bundle only)
  - gigabitEthernet (IEEE 802.3ad LAG bundle only)
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

memory

Description Configures memory warning parameters. When the router reaches the high memory utilization value, it sends warning messages. When memory usage falls to the abated memory utilization value, the router stops sending warning messages. The **no** version returns the memory warning parameters to the default values.

Syntax [no] memory warning *highUtilization abatedUtilization*

- *highUtilization*—High memory utilization value; in the range 1–99; default value is 85
- *abatedUtilization*—Abated memory utilization value; in the range 1–99; default value is 75

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

message-digest-key md5

Description Enables OSPF MD5 authentication for the remote-neighbor interface and configures the MD5 key. The **no** version deletes an MD5 key.

NOTE: If all the MD5 keys have been deleted, the authentication type is still MD5, but you need to configure MD5 keys.

NOTE: To disable MD5 authentication for the remote-neighbor interface, use the **authentication-none** command.

Syntax message-digest-key *keyID* md5 [0 | 8] *msgDigestKey*

no message-digest-key *keyID*

- *keyID*—Key identifier in the range 1–255
- md5—Specifies use of the MD5 algorithm
- 0—Indicates the *msgDigestKey* is entered in unencrypted form (plaintext); this is the default option
- 8—Indicates the *msgDigestKey* is entered in encrypted form (ciphertext)
- *msgDigestKey*—OSPF password; string of up to 16 alphanumeric characters

Mode Remote Neighbor Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

metric

Description Sets the metric to the same value for all active IS-IS IPv4 and IPv6 interfaces at the specified level. If you do not specify level 1 routers or level 2 routers, then the metric is applied to both level 1 and level 2 routers. The **no** version restores the individual default value, 10.

Syntax metric *globalDefault* [level-1 | level-2]

no metric [level-1 | level-2]

- *globalDefault*—Metric used for all IS-IS interfaces; a number in the range 1–16777215; overridden by the **isis metric** command
- level-1—Configuration applies only to level 1 routing
- level-2—Configuration applies only to level 2 routing

Mode Router Configuration

Release Information Command introduced in JUNOSe Release 9.0.0.

metric-style narrow

Description Configures the router to generate and accept only old-style IS-IS TLVs with narrow (six-bit) metric fields. If you issue this command, the value configured with the **isis metric** command can range only from 0–63. The **no** version restores the default value, which is to generate and accept only old-style TLVs with narrow (six-bit) metric fields.

Syntax [no] metric-style narrow [transition] [level-1 | level-2 | level-1-2]

- transition—Configures the router to additionally accept new-style TLVs with wider metric fields
- level-1—Configuration applies only to level 1 routing
- level-2—Configuration applies only to level 2 routing
- level-1-2—Configuration applies to both level 1 and level 2 routing

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

metric-style transition

Description Configures the router to generate and accept both old-style IS-IS TLVs with narrow (six-bit) metric fields and new-style IS-IS TLVs with wider metric fields. If you issue this command, the value configured with the **isis metric** command can range from 0–16777215. The **no** version restores the default value, which is to generate and accept only old-style TLVs with narrow (six-bit) metric fields.

Syntax [no] metric-style transition [level-1 | level-2 | level-1-2]

- level-1—Configuration applies only to level 1 routing
- level-2—Configuration applies only to level 2 routing
- level-1-2—Configuration applies to both level 1 and level 2 routing

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

metric-style wide

Description Configures the router to generate and accept only new-style IS-IS TLVs with wider metric fields. If you issue this command, the value configured with the **isis metric** command can range from 0–16777215. The **no** version restores the default value, which is to generate and accept only old-style TLVs with narrow (six-bit) metric fields.

Syntax [no] metric-style wide [transition] [level-1 | level-2 | level-1-2]

- transition—Configures the router to additionally accept old-style TLVs with narrow (six-bit) metric fields
- level-1—Configuration applies only to level 1 routing
- level-2—Configuration applies only to level 2 routing
- level-1-2—Configuration applies to both level 1 and level 2 routing

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

minimum-dynamic-rate-percent

Description Specifies the minimum value of the dynamic shaping rate as a percentage of the shared shaping rate for all simple shared shapers on the router. The **no** version removes the specified minimum dynamic rate from all simple shared shapers on the router.

Syntax minimum-dynamic-rate-percent *minimumDynamicRatePercent*

no minimum-dynamic-rate-percent

- *minimumDynamicRatePercent*—Minimum percentage value of the dynamic shared shaper in the range 0–100; default value is 0

Mode QoS Shared Shaper Control Configuration

Release Information Command introduced in JUNOSe Release 8.0.0.

Related Topics

- Configuring Simple Shared Shaper Algorithm Variables

mirror

Description Enables packet mirroring based on the specified trigger and specifies the secure policy to attach to the subscriber's interface. The **no** version disables packet mirroring for the subscriber and removes the trigger configuration.

Syntax mirror *triggerType triggerValue* { ip | l2tp } secure-policy-list *policyName*

no mirror *triggerType triggerValue* { ip | l2tp }

- *triggerType*—One of the following RADIUS attributes
  - acct-session-id—Acct-Session-ID (RADIUS attribute 44)
  - calling-station-id—Calling-Station-ID (RADIUS attribute 31)
  - ip-address—Framed-IP-Address (RADIUS attribute 8)
  - nas-port-id—NAS-Port-ID (RADIUS attribute 87)
  - username—User-Name (RADIUS attribute 1)
- *triggerValue*—Value of the *triggerType* (the specified RADIUS attribute) that identifies the subscriber
- ip—Configures mirroring for an IP subscriber
- l2tp—Configures mirroring for an L2TP subscriber
- *policyName*—Secure policy to attach to the subscriber's interface

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
nas-port-id keyword added in JUNOSe Release 7.1.0.

Related Topics

- Configuring CLI-Based Mirroring

mirror analyzer-ip-address

Description Configures the mirror action for a classifier group in a secure IP or L2TP policy list. The **no** version deletes the mirror rule.

Syntax mirror analyzer-ip-address *analyzerIpAddress* analyzer-virtual-router *vrName* [analyzer-udp-port *udpPort* [mirror-identifier *mirrorId* [session-identifier *sessionId*]]]

no mirror

- *analyzerIpAddress*—IP address of the analyzer
- *vrName*—Name of the virtual router where the analyzer interface is configured
- *udpPort*—UDP port of the analyzer; required for L2TP packet mirror rules
- *mirrorId*—Mirror identifier
- *sessionId*—Session identifier

Mode Classifier-Group Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring CLI-Based Mirroring

mirror disable

Description Disables a packet mirroring session that was dynamically configured for a subscriber; uses the trigger information to identify the subscriber's session. There is no **no** version.

Syntax mirror disable *triggerType triggerValue*

- *triggerType*—One of the following RADIUS attributes that was used as the trigger to start the packet mirroring session
  - acct-session-id—Acct-Session-ID (RADIUS attribute 44)
  - calling-station-id—Calling-Station-ID (RADIUS attribute 31)
  - ip-address—Framed-IP-Address (RADIUS attribute 8)
  - nas-port-id—NAS-Port-ID (RADIUS attribute 87)
  - username—User-Name (RADIUS attribute 1)
- *triggerValue*—Value of the *triggerType* (the specified RADIUS attribute) that identifies the subscriber

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.
nas-port-id added in JUNOSe Release 7.1.0.

Related Topics

- Configuring CLI-Based Mirroring
- Configuring RADIUS-Based Mirroring

mirror-enable

Description Enables the use of the secure packet mirroring commands. The secure commands are then visible and can be used during the current CLI session. The **no** version disables the use of packet mirroring commands; the commands no longer appear in the CLI.

Syntax [no] mirror-enable

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring CLI-Based Mirroring

mirror trap-enable

Description Configures the packet mirroring application to generate secure packet mirroring traps. The **no** version disables the trap generation.

Syntax [no] mirror trap-enable

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.2.0.

Related Topics

- Monitoring SNMP Secure Packet Mirroring Traps

mld disable

Description Disables MLD on a virtual router. The **no** version reenables MLD on a virtual router.

Syntax [no] mld disable

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mode

Description Enables high availability mode (hitless SRP switchover) operation. The **no** version returns high availability mode operation to its default (file-system-synchronization).

Syntax mode { file-system-synchronization | high-availability }

no mode

- file-system-synchronization—Uses file synchronization to keep the configuration of the standby SRP coordinated with the configuration of the active SRP
- high-availability—Uses mirroring to keep the configuration and state of the standby SRP coordinated with the configuration and state of the active SRP

Mode Redundancy Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

monitor atm vc

Description Displays bit rate and packet rate statistics over a specified time interval for one or more ATM virtual circuits (VCs). There is no **no** version.

Syntax monitor atm vc atm *interfaceSpecifier vcd* [atm *interfaceSpecifier vcd*]*
[load-interval *seconds*] [display-time-of-day]

- *interfaceSpecifier*—ATM interface specifier; see *Interface Types and Specifiers* in *About This Guide*
- *vcd*—Virtual circuit descriptor that is an identifier for the VC in other commands; number in the range 1–2147483647
- *seconds*—Number of seconds in the range 5–30 that specifies the time interval at which the router calculates bit rates and packet rates for the specified VC; default value is 5 seconds
- display-time-of-day—Sets time at which the router calculates the bit rate and packet rate statistics for the current interval
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

monitor atm vp

Description Displays bit rate and packet rate statistics over a specified time interval for one or more ATM virtual paths (VPs). There is no **no** version.

Syntax monitor atm vp atm *interfaceSpecifier vpi* [atm *interfaceSpecifier vpi*]*
[load-interval *seconds*] [display-time-of-day]

- *interfaceSpecifier*—ATM interface specifier; see *Interface Types and Specifiers* in *About This Guide*
- *vpi*—Virtual path identifier of the PVC. The numeric range of the VPI depends on the line module capabilities and current configuration.
- *seconds*—Number of seconds in the range 5–300 that specifies the time interval at which the router calculates bit rates and packet rates for the specified VP; default value is 5 seconds
- display-time-of-day—Sets time at which the router calculates the bit rate and packet rate statistics for the current interval
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Privileged Exec, User Exec

Release Information Command introduced in JUNOSe Release 7.1.0.

monitor vlan interface

Description Displays bit rate and packet rate statistics over a specified time interval for one or more VLAN subinterfaces. There is no **no** version.

Syntax monitor vlan interface *interfaceType interfaceSpecifier*
[*interfaceType interfaceSpecifier*]* [load-interval *seconds*] [display-time-of-day]

- *interfaceType*—One of the following interface types listed in *Interface Types and Specifiers* in *About This Guide*
  - atm
  - fastEthernet
  - gigabitEthernet
  - lag
  - tenGigabitEthernet
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *seconds*—Number of seconds in the range 5–30 that specifies the time interval at which the router calculates bit rates and packet rates for the specified VLAN; default value is 5 seconds
- display-time-of-day—Sets time at which the router calculates the bit rate and packet rate statistics for the current interval
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

more

Description Displays the contents of a macro, script, or text file. The file can reside in NVS on the primary SRP module, in NVS on the redundant (standby) SRP module, or on a remote server that you access using FTP. There is no **no** version.

Syntax To display a file that resides in NVS on the primary SRP module:
more *fileName*

- *fileName*—Name of the file you want to display

To display a file that resides in NVS on the redundant (standby) SRP module:
more standby:*fileName*

- *fileName*—Name of the file you want to display

To display a file that resides on a remote server:
more *serverName*:*filePathName*

- *serverName*—Name of the remote server on which the file resides
- *filePathName*—Complete path of the file on the remote server

Mode Privileged Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

motd-banner

Description Controls display of a message-of-the-day banner (configured with the **banner** command) on a particular line when a connection is initiated. The **no** version disables the motd banner on the line; the motd banner is also disabled by the **no exec-banner** command. The **default** version restores the default setting, in which the banner is enabled on all lines.

Syntax [no | default] motd-banner

Mode Line Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mount

Description Mounts the specified flash card. If the card was not safely unmounted previously, the command also performs disk and file system integrity checks before mounting the card and permitting user access. The **no** version prepares the card for safe unmounting by rejecting requests to open files and waiting for currently open files to close; only then is the user notified that the unmounted card can be safely ejected.

Syntax mount { disk0 | disk1 }

no mount { disk0 | disk1 } [force]

- disk0—Specifies flash card in slot 0 of the SRP module; although this option is displayed by the CLI, it is rejected when specified because disk0 is required for router operation
- disk1—Specifies flash card in slot 1 of the SRP module; supported only on the E120 router and the E320 router
- force—Forces the dismount even when files on the disk are open for modification

Mode Privileged Exec

Release Information Command introduced in JUNOSe Release 8.0.0.

mpls

Description

In Global Configuration mode, creates MPLS in the current virtual router. By default, MPLS does not exist in a VR. The **no mpls** version removes MPLS from the VR, and additionally removes all MPLS major interfaces, MPLS shim interfaces, MPLS load-balancing groups, MPLS minor interfaces, and MPLS forwarding tables from the VR.

In Interface Configuration mode, creates an MPLS major interface stacked on the current layer 2 interface, and automatically enables MPLS in the current VR if it has not already been enabled. If the MPLS major interface already exists, no action is taken and no message is generated. An error message is generated if you issue the command for a layer 2 interface that does not support MPLS major interfaces. You cannot enable MPLS on a loopback interface. The **no mpls** version removes the MPLS major interface.

In Subscriber Policy Configuration mode, modifies the subscriber policy for MPLS to define whether the subscriber (client) interfaces that belong to a bridge group or to a VPLS instance forward (permit) or filter (deny) MPLS packets. The **no** version restores the default value, permit MPLS packets.

In Subscriber Policy Configuration mode, you cannot change the default subscriber policy values for trunk (server) interfaces that belong to a bridge group or to a VPLS instance. You also cannot change the default subscriber policy values for a VPLS virtual core interface, which acts as a trunk interface. The VPLS virtual core interface represents all of the MPLS tunnels from the router to the remote VPLS edge (VE) devices.

Syntax

To enable MPLS on a virtual router in Global Configuration mode, or to create an MPLS major interface in Interface Configuration mode:

```
[ no ] mpls
```

To modify the subscriber policy for MPLS packets in Subscriber Policy Configuration mode:

```
mpls { permit | deny }
```

```
no mpls
```

- permit—*S*pecifies that the subscriber interface associated with the bridge group or VPLS instance forwards MPLS packets
- deny—*S*pecifies that the subscriber interface associated with the bridge group or VPLS instance filters MPLS packets

Mode

Global Configuration, Interface Configuration, Subscriber Policy Configuration

Release Information

Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Configuring MPLS LSPs

mpls atm vci range

Description Specifies the range for virtual circuit identifiers that can be used in MPLS labels for an MPLS major interface on an ATM AAL5 interface using the interface label space. Creates the MPLS major interface if it does not yet exist. An error message is generated if you issue the command for any other layer 2 interface, as they do not support the interface label space. The **no** version deletes the range.

Syntax mpls atm vci range *minVCI maxVCI*

no mpls atm vci range

- *minVCI*—Lowest virtual circuit identifier acceptable for a label, a value from 33–65535
- *maxVCI*—Highest virtual circuit identifier acceptable for a label, a value from 33–65535

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls atm vpi range

Description Specifies the range for virtual path identifiers that can be used in MPLS labels for an MPLS major interface on an ATM AAL5 interface using the interface label space. Creates the MPLS major interface if it does not yet exist. An error message is generated if you issue the command for any other layer 2 interface, as they do not support the interface label space. The **no** version deletes the range.

Syntax mpls atm vpi range *minVPI maxVPI*

no mpls atm vpi range

- *minVPI*—Lowest virtual path identifier acceptable for a label, a value in the range 0–255
- *maxVPI*—Highest virtual path identifier acceptable for a label, a value in the range 0–255

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls backup-path

Description Assigns the specified bypass tunnel to the interface that you want to protect. The **no** version removes the assignment.

Syntax [no] mpls [traffic-eng] backup-path *bypassTunnelName*

- traffic-eng—Specifies optional keyword for compatibility with non–E-series implementations
- *bypassTunnelName*—Name of the bypass tunnel

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls bandwidth

Description Specifies the total bandwidth reservable for MPLS on the interface. The **no** version restores the default value, 0.

Syntax { ip rsvp | mpls } bandwidth *bandwidth*

no { ip rsvp | mpls } bandwidth

- ip rsvp—Specifies keyword for compatibility with non–E-series implementations of MPLS
- mpls—Specifies JUNOSe MPLS implementation
- *bandwidth*—Reservable bandwidth in kilobits per second, a value in the range 1–10000000

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls classifier-list

Description Creates or modifies an MPLS classifier control list. The **no** version deletes the MPLS classifier control list.

Syntax

mpls classifier-list *classifierName*
[traffic-class *className*] [color { green | yellow | red }]
[user-packet-class *userPacketClassValue*] [exp-bits *expValue* [exp-mask *maskValue*]

no mpls classifier-list *classifierName* [*classifierNumber*]

- *classifierName*—Name of a classifier list entry
- *className*—Name of a traffic class; the router supports up to eight traffic classes
- green—Matches packet color to green, indicating a low drop preference
- yellow—Matches packet color to yellow, indicating a medium drop preference
- red—Matches packet color to red, indicating a high drop preference
- *userPacketClassValue*—Value of the user packet class in the range 0–15
- *expValue*—Value of the EXP bits in the range 0–7
- *maskValue*—Mask applied to the EXP bits in the range 1–7
- *classifierNumber*—Index of the classifier control list entry to be deleted; an integer in the range 1–10000

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Creating or Modifying Classifier Control Lists for MPLS Policy Lists

mpls copy-upc-to-exp

Description Sets the initial value of the EXP bits in pushed or swapped labels to the user packet class value associated with the packets. This command does not modify EXP bits in labels already in the received MPLS packet. The **no** version restores the default condition, where the EXP bits are set to zero (for non-MPLS/IP traffic) or to the IP precedence value from the TOS field of the IP packet header (for IP traffic).

Syntax [no] mpls copy-upc-to-exp

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

mpls create-dynamic-interfaces

Description Specifies whether dynamic IP interfaces are automatically created on top of all MPLS major interfaces, and if so, which profile is used to create them. By default, one IPv4 dynamic interface without a profile is created and used for both VPN and non-VPN traffic. If IPv6 is enabled on the virtual router, then by default, one IPv6 dynamic interface without a profile is created and used for both VPN and non-VPN traffic. The **no** version restores the default behavior.

Syntax

mpls create-dynamic-interfaces
{ ip ipv6 } on-major-interfaces [for-vpn-traffic] [profile *profileName*]

no mpls create-dynamic-interfaces
{ ip ipv6 } on-major-interfaces [for-vpn-traffic]

- ip—*S*pecifies that the created dynamic interfaces are IPv4
- ipv6—*S*pecifies that the created dynamic interfaces are IPv6
- for-vpn-traffic—*S*pecifies that the created dynamic interface is used for BGP/MPLS VPN traffic; VPN traffic uses the same IP interface as non-VPN traffic if separate IP interfaces are not created for the VPN traffic
- *profileName*—Name of a profile that sets the values that configure the IP interface; if you do not specify a profile, the interface attributes are set to their default values

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

mpls diff-serv phb-id traffic-class

Description Maps the specified PHB ID to the internal traffic class and color combination. If color is specified, the PHB ID can be used only for E-LSPs. If color is *not* specified, the PHB ID can be used only for L-LSPs. The **no** version removes the mapping.

Syntax

mpls diff-serv phb-id { private *privateId* | standard *standardId* }
traffic-class *className* [color { green | yellow | red }]

no mpls diff-serv phb-id { private *privateId* | standard *standardId* }

- *privateId*—Number in the range 0–4032 designating the private PHB identifier
- *standardId*—Number in the range 0–63 designating the standard PHB identifier using the DSCP bits
- *className*—Name of a traffic class; the router supports up to eight traffic classes
- green—Sets packet color to green, indicating a low drop preference
- yellow—Sets packet color to yellow, indicating a medium drop preference
- red—Sets packet color to red, indicating a high drop preference

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls disable

Description Administratively disables the MPLS major interface. MPLS major interfaces are administratively enabled by default. The **no** version restores the default condition, and creates an MPLS major interface if it does not already exist.

Syntax [no] mpls disable

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls explicit-path

Description Defines an explicit path by name or ID number and also enables or disables the explicit path. The **no** version deletes the explicit path.

Syntax { ip | mpls } explicit-path { name *name* | identifier *number* } [enable | disable]

no { ip | mpls } explicit-path { name *name* | identifier *number* }

- ip—Specifies alternative keyword for compatibility with non–E-series implementations
- mpls—Specifies JUNOSe MPLS implementation
- *name*—Name for the explicit path; string of up to 20 characters
- *number*—Number identifying the explicit path in the range 1–65535
- enable—Reenables the explicit path that was previously disabled on the virtual router; to prevent a partially configured explicit path from being used, do not enable it until you have finished configuring or modifying the path
- disable—Disables the explicit path that was previously enabled on the virtual router

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls ip propagate-ttl

Description Controls the value for the TTL field in the MPLS header when a label is assigned to an IP packet. Enabled by default, this command sets the TTL to the TTL value from the IP packet header. The **no** version sets the value to 255 to hide the network structure from all traffic, preventing the **traceroute** command from discovering and displaying LSP hops. The **default** version reverts to the global default, causing the TTL field to be copied from the IP packet header and enabling the **traceroute** command to show all the hops in the network.

Syntax [no | default] mpls ip propagate-ttl [forwarded | local]

- forwarded—Hides the network structure from traceroute only for forwarded packets
- local—Hides the network structure from traceroute only for local packets

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls l2transport load-balancing-group

Description Specifies a Martini layer 2 transport circuit, associates it with a load-balancing group, and accesses L2 Transport Load-Balancing-Circuit Configuration mode. The **no** version removes a circuit from the load-balancing group and all subinterfaces that the circuit was configured on.

Syntax mpls l2transport load-balancing-group *groupNumber*
[mpls-relay *remoteIpAddress* | route interface tunnel *lspName*]
[vc-id] *vcId* [group-id *groupId*]
[control-word | no-control-word] [sequencing | no-sequencing]
[relay-format { ethernet | ppp | vlan }]

no mpls l2transport load-balancing-group *groupNumber*
{ mpls-relay *remoteIpAddress* | route interface tunnel *lspName* } [vc-id] *vcId*

- *groupNumber*—Integer in the range 1–127

NOTE: For definitions of all other options, see the **mpls-relay** command or the **route interface** command. Using the **mpls-relay** keywords has the same effect as using the mpls-relay command. Using the **route interface** keywords has the same effect as using the route interface commands.

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
control-word, **no-control-word**, **sequencing**, and **no-sequencing** keywords added in JUNOSe Release 7.1.0.

Related Topics

- Configuring CE-Side Load Balancing for Martini Layer 2 Transport

mpls ldp

Description Enables LDP and topology-driven LSP, as does any LDP-related command, using an implicit default profile. You cannot enable LDP and topology-driven LSPs on a loopback interface. The **no** version disables LDP globally or on the interface.

Syntax [no] mpls ldp

Mode Global Configuration, Interface Configuration, Subinterface Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

Related Topics

- Configuring MPLS LSPs

mpls ldp advertise-labels

Description Controls the distribution of incoming labels advertised by LDP. The **no** version halts advertisement of all incoming labels or the specified labels.

Syntax mpls ldp advertise-labels { host-only | for *routeAccessList* [to *neighborAccessList*] | interface *interfaceType interfaceSpecifier* }

no mpls ldp advertise-labels { policy-list | host-only | for *routeAccessList* [to *neighborAccessList*] | interface *interfaceType interfaceSpecifier* }

- host-only—Advertises only labels for host routes (routes with a 32-bit mask)
- *routeAccessList*—Name of access list identifying routes for which label advertisement is permitted or denied
- *neighborAccessList*—Name of access list identifying neighbors to which the LSR advertises labels
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- policy-list—Deletes all lists configured with the **for** *routeAccessList* option

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls ldp autoconfig

Description In Interface Configuration mode, creates LDP on the current interface. The **no** version removes LDP from the interface.

In Router Configuration mode, creates LDP on all interfaces in the IS-IS or OSPF router, on interfaces in the specified level (IS-IS), or on interfaces in the specified area (OSPF). The **no** version removes the LDP configuration for all qualifying interfaces.

Syntax From Interface Configuration mode and Subinterface Configuration mode:
[no] mpls ldp { isis | ospf } autoconfig

From Router Configuration mode for IS-IS:
mpls ldp autoconfig [level-1 | level-2 | level-1-2]

no mpls ldp autoconfig

From Router Configuration mode for OSPF:
mpls ldp autoconfig [*areaId* | *areaIdInt*]

no mpls ldp autoconfig

- level-1—Enables LDP on all IS-IS level 1 interfaces
- level-1-2—Enables LDP on all IS-IS level 1-2 interfaces
- level-2—Enables LDP on all IS-IS level-2–only interfaces
- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value in the range 0–4294967295

Mode Interface Configuration, Router Configuration, Subinterface Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

mpls ldp deaggregate

Description Configures LDP to bind each prefix to a separate label on the current virtual router. The **no** version enables LDP to aggregate multiple prefixes to be bound to the same label.

Syntax [no] mpls ldp deaggregate

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

mpls ldp disable

Description Disables LDP on the interface. The **no** version reenables LDP on the interface.

Syntax [no] mpls ldp disable

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

mpls ldp discovery transport-address

Description Specifies an arbitrary IP address to be used as the transport address of the local peer advertised in LDP discovery hello messages. By default, the router ID is advertised as the transport address. The **no** version restores the default condition.

Syntax mpls ldp discovery transport-address *ipAddress*

no mpls ldp discovery transport-address

- *ipAddress*—IP address advertised as the transport address

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls ldp egress-label

Description Configures LDP to advertise the explicit null label (label 0) or a non-null label for the egress routes. The **no** version restores the default, where the egress router advertises the implicit null label.

Syntax mpls ldp egress-label { explicit-null | non-null }

no mpls ldp egress-label

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

mpls ldp graceful-restart

Description Enables LDP graceful restart to preserve MPLS forwarding state across a restart, and helper mode, or only helper mode. LDP graceful restart and helper mode are both disabled by default. The **no** version disables both LDP graceful restart and helper mode.

Syntax mpls ldp graceful-restart [helper]

no mpls ldp graceful-restart

- helper—Configures only helper mode to preserve label-FEC mappings from a neighbor in the event the neighbor gracefully restarts

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

mpls ldp graceful-restart reconnect-time

Description Specifies the length of time you want neighbors to wait for the gracefully restarting router to resume sending LDP messages to neighbors after the restart. The **no** version restores the default value, 120 seconds.

Syntax mpls ldp graceful-restart reconnect-time [*seconds*]

no mpls ldp graceful-restart reconnect-time

- *seconds*—Number of seconds in the range 60–300

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

mpls ldp graceful-restart recovery-time

Description Specifies the length of time the router retains its MPLS forwarding state across a restart. The **no** version restores the default value, 120 seconds.

Syntax mpls ldp graceful-restart recovery-time [*seconds*]

no mpls ldp graceful-restart recovery-time

- *seconds*—Number of seconds in the range 120–600

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

mpls ldp graceful-restart timers max-recovery

Description Specifies the maximum length of time that the router waits for its neighbor to complete a graceful LDP restart after the LDP session is reestablished. The **no** version restores the default value, 120 seconds.

Syntax mpls ldp graceful-restart timers max-recovery *seconds*

no mpls ldp graceful-restart timers max-recovery

- *seconds*—Number of seconds in the range 15–600

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

mpls ldp graceful-restart timers neighbor-liveness

Description Specifies the maximum length of time that the router waits for its neighbor to reestablish an LDP session. The **no** version restores the default value, 120 seconds.

Syntax mpls ldp graceful-restart timers neighbor-liveness *seconds*

no mpls ldp graceful-restart timers neighbor-liveness

- *seconds*—Number of seconds in the range 5–300

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

mpls ldp igp sync holddown

Description Configures the LDP-IGP synchronization holddown timer. The **no** version restores the default condition, where the IGP waits for LDP to be operational on the interface indefinitely.

Syntax mpls ldp igp sync holddown *holdDownValue*

no mpls ldp ldp igp sync holddown

- *holdDownValue*–Number of milliseconds in the range 1–65535

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

mpls ldp independent-control

Description Specifies independent control as the method used by LDP for label distribution. The **no** version restores the default method, ordered control.

Syntax [no] mpls ldp independent-control

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

mpls ldp ip-forwarding

Description Specifies LSPs to be put into the IP routing table for forwarding plain IP traffic. The **no** version removes the listed LSPs or all LSPs from the IP routing table.

Syntax [no] mpls ldp ip-forwarding [{ access-list | prefix-list } *listName*)] [host-only]

- access-list—Specifies that *listName* is an access list
- prefix-list—Specifies that *listName* is a prefix list
- *listName*—Name of access list or prefix list that specifies LSPs over which IP interfaces are created
- host-only—Specifies that IP interfaces are created only over LSPs to host addresses

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

mpls ldp link-hello disable

Description Suppresses the transmission of LDP link hello messages. The **no** version restores the default condition, transmitting link hello messages.

Syntax [no] mpls ldp link-hello disable

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls ldp neighbor password

Description Configures the password used to compute MD5 checksums for authenticating the specified LDP neighbor when the peer attempts to establish a TCP connection. The **no** version deletes the password for the peer.

Syntax mpls ldp neighbor *ipAddress* password *passwordString*

[no] mpls ldp neighbor *ipAddress* password

- *ipAddress*—IP address of remote peer
- *passwordString*—Password; alphanumeric string in the range 1–40 characters

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls ldp profile

Description In Global Configuration mode, creates or modifies a configuration profile for the LDP. Places the CLI in LDP Profile Configuration mode. If you do not specify a profile name, the factory default profile is assumed. The **no** version deletes the specified profile.

In Interface Configuration mode, creates or enables LDP on the interface with the factory default profile or the specified profile. The **no** version reverts to the default profile on the interface.

Syntax In Global Configuration mode:

mpls ldp [interface] profile [*profileName*]

no mpls ldp interface profile *profileName*

In Interface Configuration mode:

mpls ldp profile *profileName*

no mpls ldp profile

- interface—Keyword required for the **no** version in Global Configuration mode
- *profileName*—Name of a profile to be created or modified (Global Configuration mode), applied to an interface (Interface Configuration mode), or deleted (both modes); the profile sets the values for the protocol parameters; until you modify the profile settings, the values match those of the implicit default profile

Mode Global Configuration, Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls ldp redistribute

Description Enables redistribution of routes from the specified IGP to LDP. The **no** version halts redistribution.

Syntax mpls ldp redistribute *protocol* [route-map *mapName*]

no mpls ldp redistribute *protocol* [route-map *mapName*]

- *protocol*—Protocol from which routes are redistributed to LDP: BGP, connected, IS-IS, OSPF, RIP, or static
- *mapName*—Name of the route map used to redistribute more specific routing information from an IGP to LDP

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

mpls ldp session holdtime

Description Configures the LDP session hold time, the period that an LSR maintains a session without receipt of a message from an LDP peer. The **no** version restores the default value, 180.

Syntax mpls ldp session holdtime *holdTime*

no mpls ldp session holdtime

- *holdTime*—Number of seconds in the range 15–65535

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls ldp session keepalive interval

Description Sets the transmission interval at which LDP sends session keepalive messages. The **no** version restores the default interval, 20 seconds.

Syntax mpls ldp session keepalive interval *seconds*

no mpls ldp session keepalive interval

- *seconds*—Number of seconds, in the range 1–65535

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

mpls ldp session retries

Description Specifies the number of attempts that will be made to set up an LDP session. The **no** version restores the default value, 0, meaning that the attempts will be made until successful.

Syntax mpls ldp session retries *retryNum*

no mpls ldp session retries

- *retryNum*—Number of attempts in the range 0–65535

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls ldp session retry-time

Description Specifies the interval in seconds between attempts to set up an LDP session. The **no** version restores the default value, 30 seconds.

Syntax mpls ldp session retry-time *retryTime*

no mpls ldp session retry-time

- *retryTime*—Interval in the range 0–60

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls ldp strict-security

Description Configures strict LDP authentication mode, which enables sessions to be formed only by peers with configured passwords. The **no** version enables sessions to be formed by peers without configured passwords.

Syntax [no] mpls ldp strict-security

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls ldp sync

Description In Interface Configuration mode, synchronizes LDP with the IGP on the current interface. The **no** version removes the configuration for the interface.

In Router Configuration mode, synchronizes LDP with the IGP on all of the protocol's interfaces, on all interfaces in the specified level (IS-IS), or on all interfaces in the specified area (OSPF). The **no** version removes the configuration for all qualifying interfaces.

Syntax From Interface Configuration mode and Subinterface Configuration mode:
[no] mpls ldp { isis | ospf } sync

From Router Configuration mode for IS-IS:
mpls ldp sync [level-1 | level-2 | level-1-2]

no mpls ldp sync

- level-1—Enables synchronization with LDP on all IS-IS level 1 interfaces
- level-1-2—Enables synchronization with LDP on all IS-IS level 1-2 interfaces
- level-2—Enables synchronization with LDP on all IS-IS level-2–only interfaces

From Router Configuration mode for OSPF:
mpls ldp sync [*areaId* | *areaIdInt*]

no mpls ldp sync

- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value in the range 1–4294967295

Mode Interface Configuration, Router Configuration, Subinterface Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

mpls ldp targeted-hello holdtime

Description Configures the LDP targeted-hello hold time. The **no** version restores the default value, 45 seconds.

Syntax mpls ldp targeted-hello holdtime *seconds*

no mpls ldp targeted-hello holdtime

- *seconds*—Number of seconds, in the range 1–65535

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

mpls ldp targeted-hello interval

Description Configures the LDP targeted-hello interval. The **no** version restores the default value, 15 seconds.

Syntax mpls ldp targeted-hello interval *seconds*

no mpls ldp targeted-hello interval

- *seconds*—Number of seconds, in the range 1–65535

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

mpls ldp targeted-hello receive list

Description Configures the list of peer addresses from which MPLS accepts targeted hello messages. The **no** version removes the list of peer addresses.

Syntax [no] mpls ldp targeted-hello receive list
{ access-list *accessListName* | *ipAddress* [*ipAddress*]* }

- *accessListName*—String of up to 32 alphanumeric characters that identifies an access list
- *ipAddress*—IP address of a peer
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls ldp targeted-hello send list

Description Configures the list of peer addresses to which MPLS sends targeted hello messages. The **no** version removes the list of peer addresses.

Syntax [no] mpls ldp targeted-hello send list
{ access-list *accessListName* | *ipAddress* [*ipAddress*]* }

- *accessListName*—String of up to 32 alphanumeric characters that identifies an access list
- *ipAddress*—IP address of a peer
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls ldp vpls neighbor

Description Configures the remote VPLS edge (VE) device address of a neighbor in the VPLS domain in which the VPLS instance participates. The specified VPLS instance must use LDP as the signaling protocol. If either or both LDP or MPLS are not configured on the current virtual router, issuing this command creates the LDP and MPLS configurations automatically. The **no** version deletes the neighbor from the VPLS domain.

The **mpls ldp vpls neighbor** command is not valid for a VPLS instance that uses BGP as the signaling protocol. To configure a VPLS instance with BGP signaling, use the **bridge vpls rd**, **bridge vpls route-target**, **bridge vpls site-name site-id**, and **bridge vpls site-range** commands.

Syntax [no] mpls ldp vpls *vplsName* neighbor *ipAddress*

- *vplsName*—Name of a VPLS instance created with the **bridge vpls transport-virtual-router** command
- *ipAddress*—IP address of a neighbor in the VPLS domain

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.2.0.

mpls ldp vpls vpls-id

Description Configures the VPLS identifier of a VPLS instance that uses LDP as the signaling protocol. The **no** version deletes the VPLS identifier from the VPLS instance.

The **mpls ldp vpls vpls-id** command is not valid for a VPLS instance that uses BGP as the signaling protocol. To configure a VPLS instance with BGP signaling, use the **bridge vpls rd**, **bridge vpls route-target**, **bridge vpls site-name site-id**, and **bridge vpls site-range** commands.

Syntax mpls ldp vpls *vplsName* vpls-id *vplsId*

no mpls ldp vpls *vplsName* vpls-id

- *vplsName*—Name of a VPLS instance created with the **bridge vpls transport-virtual-router** command
- *vplsId*—VPLS identifier for the VPLS instance, in the range 1–4294967295

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.2.0.

mpls lsp no-route retries

Description Specifies the number of attempts that will be made to set up an LSP for CR-LDP and RSVP-TE after a failure due to no available route. The **no** version restores the default value, 0, which means the attempts will be made until successful.

Syntax mpls lsp no-route retries *retryNum*

no mpls lsp no-route retries

- *retryNum*—Number of retry attempts in the range 0–65535

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls lsp no-route retry-time

Description Specifies the interval in seconds between attempts to set up an LSP for CR-LDP and RSVP-TE after a failure due to no available route. The **no** version restores the default value, 5 seconds.

Syntax mpls lsp no-route retry-time *retryTime*

no mpls lsp no-route retry-time

- *retryTime*—Interval in the range 1–60

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls lsp retries

Description Specifies the number of attempts that will be made to set up an LSP for CR-LDP and RSVP-TE after a failure other than one due to no available route. The **no** version restores the default value, 0, which means the attempts will be made until successful.

Syntax mpls lsp retries *retryNum*

no mpls lsp retries

- *retryNum*—Number of retry attempts in the range 0–65535

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls lsp retry-time

Description Specifies the interval in seconds between attempts to set up an LSP for CR-LDP and RSVP-TE after a failure other than one due to no available route. The **no** version restores the default value, 5 seconds.

Syntax mpls lsp retry-time *retryTime*

no mpls lsp retry-time

- *retryTime*—Interval in the range 1–60

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls match exp-bits

Description Sets the traffic class and color for incoming MPLS packets whose EXP bits in the MPLS shim header match the specified EXP bits value. The **no** version reverts to the default behavior for traffic matching the specified EXP bits value, setting neither traffic class nor color.

Syntax mpls match exp-bits *bitValue* set traffic-class *className* color { green | yellow | red }

no mpls match exp-bits *bitValue*

- *bitValue*—Value in the range 0–7 that matches the corresponding binary value (000–111) for the three EXP bits
- *className*—Name of a traffic class; the router supports up to eight traffic classes
- green—Sets packet color to green, indicating a low drop preference
- yellow—Sets packet color to yellow, indicating a medium drop preference
- red—Sets packet color to red, indicating a high drop preference

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls match traffic-class

Description Sets the EXP bits in the MPLS shim header of outgoing MPLS packets that match the specified combination of traffic class and color. The **no** version reverts to the default behavior for traffic matching the specified traffic class and color combination. The default behavior sets the EXP bits to 000 for traffic entering an LSP and has no effect on the EXP bits for transit traffic.

Syntax mpls match traffic-class *className* color { green | yellow | red } set exp-bits *bitValue*

no mpls match traffic-class *className* color { green | yellow | red }

- *className*—Name of a traffic class; the router supports up to eight traffic classes
- green—Sets packet color to green, indicating a low drop preference
- yellow—Sets packet color to yellow, indicating a medium drop preference
- red—Sets packet color to red, indicating a high drop preference
- *bitValue*—Value in the range 0–7 that sets the corresponding binary value (000–111) for the three EXP bits

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls policy

Description Assigns a policy list to the ingress or egress of an MPLS layer 2 transport interface. If you enter this command when the policy list does not exist, the router will create a policy list with a filter rule as the default. Attaching this policy list to an interface filters all packets on that interface. You must specify the **input** or **output** keyword to assign the policy list to the ingress or egress of the interface. The **no** version removes the association between a policy list and an interface.

Syntax

mpls policy { input | output } *policyName*
[statistics { enabled [baseline { enabled | disabled }] [preserve | merge] | disabled [merge] } | merge]

no mpls policy { input | output } [*policyName*]

- input—Applies policy to data arriving at this interface
- output—Applies policy to data leaving this interface
- *policyName*—Name of the policy; a maximum of 40 characters
- statistics—Enables or disables collection of policy routing statistics
  - enabled—Enables collection of policy routing statistics
  - baseline enabled—Enables baselining of policy routing statistics
  - baseline disabled—Disables baselining of policy routing statistics
  - preserve—Preserves existing statistics for any classifier-list that is the same for both the new and old policy attachments when you attach a new policy to an interface
  - disabled—Disables collection of policy routing statistics
- merge—Enables merging of multiple policies to form a single policy

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
merge keyword added in JUNOSe Release 7.2.0.

Related Topics

- Configuring HDLC Layer 2 Services
- Setting a Statistics Baseline

mpls policy-list

Description Creates the specified policy list and accesses Policy List Configuration mode. If you enter the **mpls policy-list** command and the policy list does not exist, the router creates a policy list with no rules, the default. When a policy list does not have rules, the router inserts a default filter rule. Attaching this policy list to an interface filters all packets on that interface. The **no** version deletes the policy list.

Syntax [no] mpls policy-list *policyName*

- *policyName*—Name of a policy list; string of up to 40 alphanumeric characters

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

Related Topics

- Creating Policy Lists for MPLS

mpls policy-parameter hierarchical

Description Specifies a parameter value for MPLS interfaces. The **no** version removes the policy parameter and its contents.

Syntax mpls policy-parameter hierarchical *parameterName* { *nodeValue* | atm | atm-vc | atm-vp *vpValue* | ethernet | fr-vc | forwarding | svlan *svlanValue* | vlan }

no policy-parameter *parameterName*

- *parameterName*—Name of policy parameter
- *nodeValue*— Aggregation node number in the range 1–65535
- *vpValue*—ATM VPI number in the range 0–255
- *svlanValue*—SVLAN ID number in the range 0–4095

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.0.0.

Related Topics

- Creating a Classifier Group for a Policy List

mpls policy-parameter reference-rate

Description Creates an MPLS policy parameter for a reference rate; creates a global parameter if it does not exist. The **no** version removes the policy parameter and its contents; if used with the **increase** keyword, decreases the value.

Syntax mpls policy-parameter reference-rate *parameterName* [increase] *value*

no mpls policy-parameter reference-rate *parameterName* [increase *value*]

- *parameterName*—Name of policy parameter up to 40 characters
- increase—Increments the existing reference rate value
- *value*—Value of the reference rate parameter, in the range 0–4292967295

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

Related Topics

- Creating a Classifier Group for a Policy List

mpls policy-statistics

Description Enables policy statistics to be collected for the specified tunnel or LSP. Statistics collection is disabled by default. There is no **no** version.

Syntax mpls { enable | disable } policy-statistics *tunnelName*

- enable—Enables the collection of policy statistics
- disable—Disables the collection of policy statistics; this is the default setting
- *tunnelName*—Name of a tunnel or LSP; string of up to 20 alphanumeric characters

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls preserve-vpn-exp

Description Prevents the value of the EXP bits for a VPN label from being modified by either a per-LSP policy for the outer labels or per-VR traffic class/color rules. In the default condition, per-LSP policies or per-VR rules modify all labels in a given label stack to have the same value for the EXP bits. The **no** version restores the default condition.

Syntax [no] mpls preserve-vpn-exp

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls-relay

Description Routes layer 2 traffic to the specified router by creating an MPLS shim interface on the layer 2 interface. The router can use any MPLS LSP to the remote destination address that you specify. You must issue this command in the virtual router where the remote address can be reached; that is, in the virtual router providing core connections. The **no** version removes the shim interface. See also the **route interface** command.

Syntax mpls-relay *remoteAddress* [vc-id] *vcidValue* [group-id *groupIdValue*] [control-word | no-control-word] [sequencing | no-sequencing] [relay-format { ethernet | ppp | vlan }]

no mpls-relay

- *remoteIpAddress*—IP address of the router on the remote end of the layer 2 circuit
- *vcidValue*—Integer in the range 1–4294967295 that identifies the virtual connection; the two ends across the MPLS core must match inside each VC type

NOTE: The VLAN ID, DLCI, or ATM VPI/VCI are not related to the VC ID and can be different on each end of the connection.

- *groupIdValue*—Integer in the range 0–4294967295 that identifies a group of virtual connections; not currently used
- control-word—Indicates that the local preference is to use the control word for the layer 2 packets encapsulated in MPLS packets sent to the remote PE router. The default preference is determined by the interface stack on which the MPLS interface is stacked.
- no-control-word—Indicates that the local preference is to not use the control word for the layer 2 packets encapsulated in MPLS packets sent to the remote PE router. The default preference is determined by the interface stack on which the MPLS interface is stacked.
- sequencing—Specifies that the local preference is to include nonzero sequence numbers with the control word; enabling the remote PE to detect out-of-order packets; has no effect if no control word is sent in the packets. The router always accepts zero sequence numbers and checks the order of nonzero sequence numbers of MPLS packets received from the remote PE; any out of order packets are dropped, regardless of whether sequencing is configured.
- no-sequencing—Specifies that the sequencing number in the control word is set to zero, instructing the remote PE router to not attempt to detect out-of-order packets; has no effect if no control word is sent in the packets.
- relay-format ethernet—Specifies that the router uses Ethernet signaling and encapsulation, which causes the VLAN interface to appear as an Ethernet interface to the other side of the connection; enables a VLAN interface on one side of an MPLS tunnel to communicate with an Ethernet or a bridged Ethernet interface on the other side of an MPLS tunnel. The VLAN tag is not included in the MPLS encapsulation. This option is not available on serial or POS interfaces for HDLC layer 2 circuits. It is available only on VLAN interfaces

- relay-format ppp—Specifies that the router uses VC-type PPP signaling and PPP encapsulation instead of VC-type HDLC signaling and HDLC encapsulation. The router uses VC-type HDLC signaling and HDLC encapsulation by default. This option is available only on serial and POS interfaces for HDLC layer 2 circuits.
- relay-format vlan—Specifies that the router uses VLAN signaling and encapsulation. This option is not available on serial or POS interfaces for HDLC layer 2 circuits. It is available for VLAN interfaces.

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.
control-word, **no-control-word**, **no-sequencing**, and **vlan** keywords added in JUNOSe Release 7.1.0.

Related Topics

- Configuring an MPLS Pseudowire with VCC Cell Relay Encapsulation
- Configuring Ethernet/VLAN Layer 2 Services
- Configuring Frame Relay Layer 2 Services
- Configuring HDLC Layer 2 Services
- Configuring Local ATM Cross-Connects with AAL5 Encapsulation
- Configuring Local Cross-Connects Between Ethernet/VLAN Interfaces
- Configuring S-VLAN Tunnels for Layer 2 Services

mpls-relay disable

Description Administratively disables the MPLS shim interface. The MPLS shim interface must exist before this command can be issued. MPLS shim interfaces are administratively enabled by default. The **no** version restores the default condition.

Syntax [no] mpls-relay disable

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

mpls reoptimize

Description Performs an immediate check for better paths for all existing LSPs. There is no **no** version.

Syntax mpls [traffic-eng] reoptimize [*interfaceType interfaceSpecifier*]

- traffic-eng—Specifies optional keyword for compatibility with non–E-series implementations
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls reoptimize timers frequency

Description Specifies the frequency at which existing LSPS are checked for better paths. The **no** version restores the default value, 3600 seconds.

Syntax mpls [traffic-eng] reoptimize timers frequency *seconds*

no mpls [traffic-eng] reoptimize timers frequency

- traffic-eng—Specifies optional keyword for compatibility with non–E-series implementations
- *seconds*—Number of seconds in the range 0–604800; a value of zero means that no reoptimization is performed

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls rsvp

Description Enables RSVP-TE, as does any RSVP-TE–related command. The **no** version disables LDP.

Syntax [no] mpls rsvp

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

mpls rsvp authentication

Description Enables MD5 authentication for RSVP on the interface. Enable authentication after configuring the authentication key. The **no** version disables authentication.

Syntax [no] { ip | mpls } rsvp authentication

- ip—Specifies alternative keyword for compatibility with non–E-series implementations
- mpls—Specifies JUNOSe MPLS implementation

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls rsvp authentication key

Description Assigns a key to the interface for MD5 authentication between RSVP peers. Assign the key before you enable authentication on the interface. The **no** version deletes the MD5 key.

NOTE: Keys of up to 40 characters are supported for non–Juniper Networks implementations. However, a key with more than 16 characters will cause an authenticated link between E-series and M- or T-series routers to be inoperable.

Syntax { ip | mpls } rsvp authentication [key *authkey*]

no { ip | mpls } rsvp authentication [key [*authkey*]]

- ip—Specifies alternative keyword for compatibility with non–E-series implementations
- mpls—Specifies JUNOSe MPLS implementation
- *authkey*—Key used to create MD5 digest for messages sent from this interface and to authenticate messages received on this interface; alphanumeric string in the range 1–40 characters

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls rsvp bfd-liveness-detection

Description Enables BFD (bidirectional forwarding detection) on an interface running RSVP-TE and defines BFD values to be negotiated between RSVP-TE neighbors for detection of IP data path failures. The **no** version disables BFD on the RSVP-TE interface.

Syntax { ip | mpls } rsvp bfd-liveness-detection [minimum-interval *minInterval* |
[minimum-receive-interval *minRecInterval*]
[minimum-transmit-interval *minTransInterval*]] [multiplier *multValue*]

no { ip | mpls } rsvp bfd-liveness-detection

- ip—Specifies alternative keyword for compatibility with non–E-series implementations
- mpls—Specifies JUNOSe MPLS implementation
- *minInterval*—Minimum proposed transmit interval and required receive interval for BFD control packets; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minRecInterval*—Minimum interval at which the local peer must receive BFD control packets sent by the remote peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minTransInterval*—Minimum proposed interval between BFD control packets sent by the local peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *multValue*—Detection multiplier value that the remote peer router multiplies by the local peer's negotiated transmit interval to determine the remote peer's BFD liveness detection interval; equal to the number of BFD packets that can be missed before the BFD session is declared down; number in the range 1–255; default value is 3

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 8.1.0.

mpls rsvp disable

Description Administratively disables RSVP-TE on the interface. The **no** version reenables RSVP-TE on the interface.

Syntax [no] mpls rsvp disable

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

mpls rsvp egress-label

Description Specifies that the egress router advertises the explicit null label or a non-null (real) label by means of RSVP-TE. The **no** version restores the default condition, where the egress router advertises the implicit null label for all tunnels (except those requiring PHB) that terminate on the router.

Syntax mpls { rsvp | traffic-eng } egress-label { non-null | explicit-null }

no mpls { rsvp | traffic-eng } egress-label

- rsvp—Specifies JUNOSe implementation
- traffic-eng—Specifies keyword for compatibility with non–E-series implementations
- non-null—Advertises a real label, signaling that the egress router pops the last label and performs the IP lookup; this behavior was the default before this release
- explicit-null—Advertises the explicit null label, signaling that the egress router pops the last label and performs the IP lookup

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

mpls rsvp message-bundling

Description Enables RSVP-TE to send bundle messages, each of which includes multiple standard RSVP-TE messages, to reduce the overall message-processing overhead. The **no** version disables RSVP-TE message bundling.

Syntax [no] mpls rsvp message-bundling

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls rsvp profile

Description In Global Configuration mode, creates or modifies a configuration profile for RSVP-TE. Places the CLI in RSVP Profile Configuration mode. If you do not specify a profile name, the factory default profile is assumed. The **no** version deletes the specified profile.

In Interface Configuration mode, creates or enables RSVP-TE on the interface with the factory default profile or the specified profile, or disables RSVP-TE on the interface. The **no** version reverts to the default profile on the interface.

Syntax In Global Configuration mode:
mpls rsvp [interface] profile [*profileName*]

no mpls rsvp interface profile *profileName*

In Interface Configuration mode:
mpls rsvp profile *profileName*

no mpls rsvp profile

- interface—Keyword required for the **no** version in Global Configuration mode
- *profileName*—Name of a profile to be created or modified (Global Configuration mode), applied to an interface (Interface Configuration mode), or deleted (both modes); the profile sets the values for the protocol parameters; until you modify the profile settings, the values match those of the implicit default profile

Mode Global Configuration, Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls rsvp refresh-reduction

Description Enables RSVP-TE summary refresh and reliability features, including the message ID object, the message ack object, and summary refresh messages. The **no** version disables summary refresh and reliability.

Syntax [no] mpls rsvp refresh-reduction

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls rsvp signalling hello

Description In Global Configuration mode, turns on or configures RSVP-TE hello support for all RSVP-TE interfaces on the current virtual router. The **no** version turns off hello support on the current VR. The **default** version restores the default configuration, in which RSVP hello support is not enabled.

In Interface Configuration mode and Subinterface Configuration mode, turns on or configures RSVP-TE hello support on the current interface, and overrides the global configuration. The **no** version turns off hello support on the current interface. The **default** version restores the default configuration, in which RSVP hello support is not enabled.

Syntax { ip | mpls } rsvp signalling hello
[refresh { interval *helloInterval* | misses *helloMisses* }]

{ no | default } { ip | mpls } rsvp signalling hello

- ip—Specifies alternative keyword for compatibility with non–E-series implementations
- *helloInterval*—Number of milliseconds specifying the interval at which hellos are sent, in the range 1000–60000; default value is 10000
- *helloMisses*—Number of RSVP-TE hello messages from a peer that can be missed before that hello adjacency peer is considered to be down, in the range 4–10; default value is 4

Mode Global Configuration, Interface Configuration, Subinterface Configuration

Release Information Command introduced in JUNOSe Release 7.3.0.

mpls rsvp signalling hello graceful-restart

Description Enables RSVP-TE graceful restart as a restarting node or helper node on the current virtual router. The **no** version disables graceful restart on the current VR.

Syntax { ip | mpls } rsvp signalling hello graceful-restart [mode help-neighbor]

no { ip | mpls } rsvp signalling hello graceful-restart

- ip—Specifies alternative keyword for compatibility with non–E-series implementations
- mode help-neighbor—Specifies the current VR acts only as a graceful restart helper node for neighbors that support RSVP-TE graceful restart

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.0.0.

mpls rsvp signalling hello graceful-restart recovery-time

Description Configures the recovery time for RSVP-TE graceful restart for all interfaces that have RSVP-TE enabled. The **no** version restores the default value.

Syntax { ip | mpls } rsvp signalling hello graceful-restart recovery-time *recoveryTime*

no { ip | mpls } rsvp signalling hello graceful-restart recovery-time

- ip—Specifies alternative keyword for compatibility with non–E-series implementations
- *recoveryTime*—Time in milliseconds within which you want the neighboring routers to resynchronize RSVP-TE state and MPLS forwarding state after a graceful restart, in the range 60000–480000; default value is 120000

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.0.0.

mpls rsvp signalling hello graceful-restart restart-time

Description Configures the restart time for RSVP-TE graceful restart for all interfaces that have RSVP-TE enabled. The **no** version restores the default value.

Syntax { ip | mpls } rsvp signalling hello graceful-restart restart-time *restartTime*

no { ip | mpls } rsvp signalling hello graceful-restart restart-time

- ip—Specifies alternative keyword for compatibility with non–E-series implementations
- *restartTime*—Total time in milliseconds for the sender to gracefully restart RSVP-TE and to re-establish hello communication with RSVP-TE neighbors; in the range 60000–3600000; default value is 60000

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 8.0.0.

mpls rsvp signalling node-hello

Description Turns on or configures RSVP-TE hellos to include node IDs as source and destination addresses in the hello packets for all RSVP-TE interfaces on the current virtual router. RSVP-TE hellos based on node ID enable the JUNOSe software to interoperate its RSVP-TE graceful restart capability with routers that cannot support RSVP-TE graceful restart with link-based hellos.

The **no** version turns off node-hello support on the current VR. The **default** version restores the default configuration, in which RSVP node hello support is not enabled.

NOTE: Node hellos are required only for interoperability with some non–E-series implementations. Node hellos are not required for communications between routers running JUNOSe software or for interoperability with routers running JUNOS software.

Syntax { ip | mpls } rsvp signalling node-hello
[refresh { interval *helloInterval* | misses *helloMisses* }]

{ no | default } { ip | mpls } rsvp signalling node-hello

- ip—Specifies alternative keyword for compatibility with non–E-series implementations
- *helloInterval*—Number of milliseconds specifying the interval at which node hellos are sent, in the range 1000–60000; default value is 10000
- *helloMisses*—Number of RSVP-TE node hello messages from a peer that can be missed before that hello adjacency peer is considered to be down, in the range 4–10; default value is 4

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 9.0.0.

mpls signaling-interface

Description Specifies a particular layer 2 interface as the signaling interface for an MPLS major interface that is stacked on an ATM AAL5 interface. MPLS uses the IPv4 or IPv6 interface stacked on the specified interface for signaling. The **no** version restores the default behavior, wherein MPLS nondeterministically selects a layer 2 interface as the signaling interface.

Syntax mpls signaling-interface *interfaceType interfaceSpecifier*

no mpls signaling-interface

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Interface Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

mpls spf-use-any-best-path

Description Enables the SPF calculations to consider both the best IGP (IS-IS or OSPF) paths and the MPLS tunnel to reach the tunnel endpoint. The **no** version restores the default value, which is to always use the MPLS tunnel to reach the tunnel endpoint—the IGP best paths are not considered.

Syntax [no] mpls spf-use-any-best-path

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls statistics label

Description Enables statistics collection for MPLS in labels. By default, statistics are enabled for in labels depending on the protocol that added the in label to the MPLS forwarding table. Statistics are not stored in NVS. The **no** version disables statistics collection.

Syntax [no] mpls statistics label { interface *interfaceName* atm *vpi vci* | *labelValue* }

- *interfaceName*—Name of interface for label in interface label space on an ATM AAL5 interface; up to 15 alphanumeric characters
- *vpi*—Virtual path identifier for a label, a value in the range 0–255
- *vci*—Virtual circuit identifier for a label, a value in the range 33–65535
- *labelValue*—Integer identifying a label in the platform label space, a value in the range 16–1048575

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

mpls statistics next-hop

Description Enables statistics collection for MPLS next hops. By default, statistics are enabled for next hops depending on the protocol that created the MPLS next hop. Statistics are not stored in NVS. The **no** version disables statistics collection.

Syntax [no] mpls statistics next-hop *nextHopIndex*

- *nextHopIndex*—Integer uniquely identifying a next hop; in the range 1–1048575

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

mpls statistics policy

Description Enables statistics collection for policies attached to an MPLS tunnel. Statistics are not stored in NVS. The **no** version disables statistics collection.

Syntax [no] mpls statistics policy *tunnelName*

- *tunnelName*—Name of the MPLS tunnel

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

mpls topology-driven-lsp

Description Enables topology-driven LSP creation on the virtual router. In the context of the VRF virtual router, enables carrier-of-carriers support on the provider carrier's PE router. The **no** version disables topology-driven LSPs on the virtual router.

Syntax [no] mpls topology-driven-lsp

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls topology-driven-lsp ip-interfaces

Description Specifies LSPs to be put into the IP routing table for forwarding plain IP traffic. The **no** version removes the LSPs from the table.

NOTE: This command is deprecated and may be removed completely in a future release. The function provided by this command has been replaced by the **ldp ip-forwarding** command.

Syntax [no] mpls topology-driven-lsp ip-interfaces [egress | ingress] [{ access-list | prefix-list } *listName*] [host-only]

no mpls topology-driven-lsp ip-interfaces [egress | ingress] [host-only] [policy-list]

- egress—Has no effect
- ingress—Has no effect
- access-list—Specifies that *listName* is an access list
- prefix-list—Specifies that *listName* is a prefix list
- *listName*—Name of access list or prefix list that specifies LSPs over which IP interfaces are created
- host-only— Specifies that only LSPs to host addresses are added to the IP routing table
- policy-list—Removes previously applied access lists or prefix lists

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls traffic-class

Description Specifies traffic class for which LSP-level queues are created. The **no** version deletes the traffic class.

Syntax [no] mpls traffic-class *className* [scheduler-profile *profileName*]

- *className*—Name of a traffic class; the router supports up to eight traffic classes
- *profileName*—Name of a scheduler profile to associate with the traffic class

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls traffic-eng

Description Enables flooding of MPLS traffic-engineering link information into the specified IS-IS level. Flooding is disabled by default. The **no** version disables flooding.

Syntax mpls traffic-eng level-1 | level-2

no mpls traffic-eng level-1 | level-2

- level-1—Floods IS-IS level 1
- level-2—Floods IS-IS level 2

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls traffic-eng administrative-weight

Description Specifies the administrative weight for the interface. The **no** version restores the default value, which matches the IGP-determined weight (cost).

Syntax mpls traffic-eng administrative-weight *weight*

no mpls traffic-eng administrative-weight

- *weight*—Administrative weight, a value in the range 0–4294967295

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls traffic-eng area

Description Enables flooding of MPLS traffic-engineering link information into the specified OSPF area. Flooding is disabled by default. The **no** version disables flooding.

Syntax [no] mpls traffic-eng area { *areaId* | *areaIdInt* }

- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value in the range 0–4294967295

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls traffic-eng attribute-flags

Description Specifies attributes for the interface for traffic engineering. The attributes are compared with tunnel affinity bits to determine links eligibility for the tunnel. The **no** version restores the default value, 0x0.

Syntax mpls traffic-eng attribute-flags *bitmask*

no mpls traffic-eng attribute-flags

- *bitmask*—Mask that sets the attributes, a value in the range 0x0–0xFFFFFFFF

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls traffic-eng egress-label

Description Specifies that the egress router advertises the explicit null label or a non-null label by means of RSVP-TE. See the **mpls rsvp egress-label** command for a complete description and syntax.

mpls traffic-eng flood thresholds

Description Specifies thresholds for the flooding of the current reservable bandwidth throughout the network. You can configure a set of thresholds for increases or decreases in bandwidth. Flooding is triggered when the reservable bandwidth increases past any up threshold or decreases past any down threshold. The **no** version restores the following default values:

- For increases in bandwidth (up changes)—15, 30, 45, 60, 75, 80, 85, 90, 95, 97, 98, 99, 100
- For decreases in bandwidth (down changes)—100, 99, 98, 97, 96, 95, 90, 85, 80, 75, 60, 45, 30, 15

Syntax mpls traffic-eng flood thresholds { up | down } *percentage* [*percentage*]*

no mpls traffic-eng flood thresholds { up | down }

- up—Specifies that an increase in bandwidth past the threshold triggers flooding
- down—Specifies that a decrease in bandwidth past the threshold triggers flooding
- *percentage*—Percentage of reservable bandwidth, a value from 1 to 100 percent for increasing bandwidth and from 0 to 99 percent for decreasing bandwidth
- *—Indicates that the percentage can be repeated multiple times in a list in the command line

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls traffic-eng link-management timers periodic-flooding

Description Specifies the interval at which bandwidth values are flooded to the entire network. Configuring a value of 0 turns off flooding. The **no** version restores the default value, 180.

Syntax mpls traffic-eng link-management timers periodic-flooding *frequency*

no mpls traffic-eng link-management timers periodic-flooding

- *frequency*—Interval in seconds, a value in the range 0–3600

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls traffic-eng multicast-intact

Description Enables a multicast network and MPLS traffic engineering (TE) network to interoperate on a router running OSPF. The **no** version disables interoperability between multicast protocols and MPLS-TE.

Syntax [no] mpls traffic-eng multicast-intact

Mode Router Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.

mpls traffic-eng router-id

Description Specifies a stable interface to be used as a router ID for MPLS traffic engineering with IS-IS or OSPF, typically a loopback interface. The interface acts as the destination node for tunnels originating at other nodes. The **no** version removes the interface as a router ID.

Syntax [no] mpls traffic-eng router-id *interfaceType interfaceSpecifier*

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Router Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls tunnel-model

Description Specifies whether MPLS employs the pipe or uniform tunnel model for differentiated services. The **no** version restores the default, the pipe model.

Syntax mpls tunnel-model { pipe | uniform }

no mpls tunnel-model

- pipe-model—Specifies that the pipe model is followed
- uniform-model—Specifies that the uniform model is followed

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mpls tunnels profile

Description Creates or disables a tunnel profile for MPLS. The **no mpls tunnels profile** version deletes the tunnel profile. The **no mpls tunnels profile disable** version reenables tunnels previously disabled.

Syntax [no] mpls tunnels profile *profileName* [disable]

- *profileName*—Name of a tunnel configuration profile used for MPLS tunnels
- disable—Disables all tunnels associated with the profile

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mroute port admission-bandwidth-limit

Description Configures a limit on the admission bandwidth of outgoing interfaces (OIFs) containing IPv4 or IPv6 mroutes, across different virtual routers, on a port. The **no** version removes any OIF admission bandwidth limits.

Syntax mroute port *portNumber* admission-bandwidth-limit *limitValue*
[priority-bandwidth-limit *priorityBandwidthValue*] [hysteresis *hysteresisValue*]

no mroute port *portNumber* admission-bandwidth-limit

- *portNumber*—Port number in the form *slot/port*.
- *limitValue*—Limit on the admission bandwidth (in bits per second) of outgoing interfaces containing IPv4 or IPv6 mroutes, across different virtual routers, on a port. The default is no limit.
- *priorityBandwidthValue*— Minimum value of admitted priority bandwidth in bps. The default is no limit.
- *hysteresisValue*—Minimum priority bandwidth limit before the system evaluates mroutes and admits any blocked OIFs; in the range 0-100 percent.

Mode Global Configuration

Release Information Command introduced in JUNOSe Release 7.1.0.
hysteresis and **priority-bandwidth limit** keywords and *hysteresisValue* and *priorityBandwidthValue* variables added in JUNOSe Release 8.2.0.

mroute port limit

Description Configures a limit on the number of outgoing interfaces (OIFs) containing IPv4 or IPv6 mroutes, across different virtual routers, on a port. The **no** version removes any OIF port limits.

Syntax mroute port *portNumber* limit *limitValue*

no mroute port *portNumber* limit

- *portNumber*—Port number in the form *slot/port*.
- *limitValue*—Limit on the number of outgoing interfaces containing IPv4 or IPv6 mroutes, across different virtual routers, on a port. The default is no limit.

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mru

Description Sets the maximum allowable size in bytes of the maximum receive unit for interfaces on cOCx/STMx, COCX-F3, CT3, and POS modules. The **no** version restores the default value, which varies according to module type.

Syntax mru *mruSize*

no mru

- *mruSize*—Maximum allowable size of the MRU; default and range varies with module type:
  - Interfaces on cOCx/STMx, CT3, and COCX-F3 modules—Number in the range 4–9996; default value is 1600
  - Interfaces on POS modules—Number in the range 1–9996; default value is 4470

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

mtrace

Description Discovers the routes that multicast packets follow when travelling to their destinations. There is no **no** version.

Syntax mtrace *sourceAddress* [*destinationAddress* [*groupAddress* [*responseAddress*]]] [*maxHops*] [detailed]

- *sourceAddress*—DNS name or unicast IP address of the multicast-capable device at the beginning of the path.
- *destinationAddress*—DNS name or unicast address of the device at the end of the path. The default destination is the router from which you type the command.
- *groupAddress*—DNS name or multicast address of the group for which you want to trace routes. The default address is 224.2.0.1 (the group used for MBONE Audio).
- *responseAddress*—IP address that receives the results of the trace
- *maxHops*—Maximum number of hops allowed for the trace; default value is 64.
- detailed—Provides a detailed description of the trace, rather than a summary

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOSe Release 7.1.0.

mtu

Description Sets the maximum allowable size in bytes of the maximum transmission unit for interfaces on cOCx/STMx, CT3, COCX-F3, Ethernet, or POS modules. The **no** version restores the default value, which varies according to module type. This command is not available for the Ethernet interface on the SRP module.

Syntax mtu *mtuSize*

no mtu

- *mtuSize*—Maximum allowable size of the MTU; default and range varies with interface type:
  - Interfaces on cOCx/STMx, CT3, and COCX-F3 modules—Number in the range 4–9996; default value is 1600
  - Interfaces on Ethernet modules—Number in the range 64–9188, except on the FE-2 and FE-8 I/O modules, where the range is 64–9042; you cannot configure MTU on Ethernet interfaces on the SRP module; default value is 1518
  - Interfaces on POS modules—Number in the range 1–9996; default value is 4470

Mode Interface Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

multicast

Description Modifies the subscriber policy for the multicast protocol to define whether the subscriber (client) interfaces that belong to a bridge group or to a VPLS instance forward (permit) or filter (deny) multicast packets. The **no** version restores the default value, permit multicast packets.

You cannot change the default subscriber policy values for trunk (server) interfaces that belong to a bridge group or to a VPLS instance. You also cannot change the default subscriber policy values for a VPLS virtual core interface, which acts as a trunk interface. The VPLS virtual core interface represents all of the MPLS tunnels from the router to the remote VPLS edge (VE) devices.

Syntax multicast { permit | deny }

no multicast

- permit—*S*pecifies that the subscriber interface associated with the bridge group or VPLS instance forwards multicast packets
- deny—*S*pecifies that the subscriber interface associated with the bridge group or VPLS instance filters multicast packets

Mode Subscriber Policy Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

multicast group port limit

Description Limits the number of IGMP or MLD groups that a port can accept. The **no** version restores the default situation, in which there is no limit to the number of IGMP or MLD groups the port can accept.

Syntax multicast group port *interfaceSpecifier* limit *groupLimit*

no multicast group port *interfaceSpecifier* limit

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *groupLimit*—Maximum number of IGMP or MLD groups that an interface can accept in the range 0–64,000

Mode Global Configuration

Release Information Command introduced before JUNOSe Release 7.1.0.

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