JunosE™ Software for E Series™ Broadband Services Routers

Command Reference N to Z

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E Series and JunosE Documentation and Release Notes

For a list of related JunosE documentation, see http://www.juniper.net/techpubs/software/index.html.

If the information in the latest release notes differs from the information in the documentation, follow the *JunosE Release Notes.*

To obtain the most current version of all Juniper Networks® technical documentation, see the product documentation page on the Juniper Networks website at http://www.juniper.net/techpubs/.

Audience

This guide is intended for experienced system and network specialists working with Juniper Networks E Series Broadband Services Routers in an Internet access environment.

E Series and JunosE Text and Syntax Conventions

Table 1 on page xxxvi defines notice icons used in this documentation.

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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 or death.
	Laser warning	Alerts you to the risk of personal injury from a laser.

Table 2 on page xxxvi defines text and syntax conventions that we use throughout the E Series and JunosE documentation.

Table 2: Text and Syntax Conventions

Convention	Description	Examples
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*

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Table 2: Text and Syntax Conventions *(continued)*

Convention	Description	Examples
| (pipe symbol)	Represents a choice to select one keyword or variable to the left or to the 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* }

Obtaining Documentation

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

To download complete sets of technical documentation to create your own documentation CD-ROMs or DVD-ROMs, see the Portable Libraries page at

http://www.juniper.net/techpubs/resources/index.html

Copies of the Management Information Bases (MIBs) for a particular software release are available for download in the software image bundle from the Juniper Networks Web site athttp://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 https://www.juniper.net/cgi-bin/docbugreport/. If you are using e-mail, be sure to include the following information with your comments:

- Document or topic name
- URL or 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,

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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/us/en/local/pdf/resource-guides/7100059-en.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 Management tool: http://www.juniper.net/cm/

To verify service entitlement by product serial number, use our Serial Number Entitlement (SNE) Tool: 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 Management 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, see http://www.juniper.net/support/requesting-support.html.

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PART 1

Commands, N to Z

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CHAPTER 1

Command Reference Topics

- Using the no Version Versus the default Version of Commands on page 3
- Deprecated Commands on page 4
- Filtering show Commands on page 4
- Interface Types and Specifiers on page 5

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.

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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

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.

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
```


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```
ip route 10.10.0.166 255.255.255.255 192.168.1.1
ip debounce-time 0
router rip
```

Related Documentation

- For a list of regular expressions, see *Using Regular Expressions* in the *JunosE IP Services Configuration Guide*

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 5 lists the interface specifiers for each type of interface on ERX7xx models, ERX14xx models, and the Juniper Networks ERX310 Broadband Services Router.

NOTE: On ERX7xx models, ERX14xx models, and the ERX310 router, 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.

Table 4 on page 13 lists the interface specifiers for each type of interface on the Juniper Networks E120 and E320 Broadband Services Routers.

NOTE: On the E120 router and the E320 router 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.

Table 3: Interface Types and Specifiers for ERX7xx Models, ERX14xx Models, and ERX310 Router

Interface Type	Description	Interface Specifier	Example
atm	ATM interface or ATM 1483 subinterface	Refer to the individual formats listed below.	

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Table 3: Interface Types and Specifiers for ERX7xx Models, ERX14xx Models, and ERX310 Router *(continued)*

Interface Type	Description	Interface Specifier	Example
• 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 (ERX7xx models), 0–13 (ERX14xx models), and 0–2 (ERX310 router) • *port*—Port number on the I/O module • *subinterface*—Number of the subinterface in the range 1–2147483647	atm 3/2.6
• ATM 1483 subinterface		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 (ERX7xx models), 0–13 (ERX14xx models), and 0–2 (ERX310 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

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Table 3: Interface Types and Specifiers for ERX7xx Models, ERX14xx Models, and ERX310 Router *(continued)*

Interface Type	Description	Interface Specifier	Example
fastEthernet	IEEE 802.3 Fast Ethernet (FE) interface	*slot/port*[.*subinterface1*[.*subinterface2*]] • *slot*—Number of the chassis slot in the range 0–6 (ERX7xx models), 0–13 (ERX14xx models), and 0–2 (ERX310 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 8000 PPPoE subinterfaces per Fast Ethernet line module • No VLANs: ◦ *subinterface1*—When using PPPoE, the number of the PPPoE subinterface in the range 1–2147483647; no more than 8000 PPPoE subinterfaces per Fast Ethernet line module ◦ *subinterface2*—Not used	fastEthernet 3/2.6.20

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Table 3: Interface Types and Specifiers for ERX7xx Models, ERX14xx Models, and ERX310 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 (ERX7xx models), 0–13 (ERX14xx models), and 0–2 (ERX310 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 8000 PPPoE subinterfaces per Gigabit Ethernet line module • No VLANs: ◦ *subinterface1*—When using PPPoE, the number of the PPPoE subinterface in the range 1–2147483647; no more than 8000 PPPoE subinterfaces per Gigabit Ethernet line module ◦ *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

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Table 3: Interface Types and Specifiers for ERX7xx Models, ERX14xx Models, and ERX310 Router *(continued)*

Interface Type	Description	Interface Specifier	Example
mplsL2shim	MPLS shim interface	*slot/port[.subinterface]* • *slot*—Number of the chassis slot in the range 0–6 (ERX7xx models), 0–13 (ERX14xx models), and 0–2 (ERX310 router) • *port*—Port number on the I/O module • *subinterface*—Number of the subinterface in the range 1–2147483647	mplsL2shim 3/2.1
mplsMajor	MPLS major interface	*slot/port[.subinterface]* • *slot*—Number of the chassis slot in the range 0–6 (ERX7xx models), 0–13 (ERX14xx models), and 0–2 (ERX310 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	Null interface, which acts as a data sink and cannot forward or receive traffic. You cannot configure values on the null interface.	0	null 0
pos	Packet over SONET (POS) interface	*slot/port*[.*subinterface*] • *slot*—Number of the chassis slot in the range 0–6 (ERX7xx models), 0–13 (ERX14xx models), and 0–2 (ERX310 router) • *port*—Port number on the I/O module • *subinterface*—Number of the subinterface in the range 1–2147483647	pos 3/2
serial	CT3, E3 Frame, T3 Frame, or cOCx/STMx interface	Refer to the individual formats listed below.	

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Table 3: Interface Types and Specifiers for ERX7xx Models, ERX14xx Models, and ERX310 Router *(continued)*

Interface Type	Description	Interface Specifier	Example
• CT3		*slot/port:channel/subchannel*[*.subinterface*] • *slot*—Number of the chassis slot in the range 0–6 (ERX7xx models) and 0–13 (ERX14xx 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	serial 3/2:20/15
• E3/T3 Frame		*slot/port*[*.subinterface*] • *slot*—Number of the chassis slot in the range 0–6 (ERX7xx models) and 0–13 (ERX14xx models) • *port*—Port number on the I/O module • *subinterface*—Number of the subinterface in the range 1–2147483647	serial 3/2
• 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 (ERX7xx models), 0–13 (ERX14xx models), and 0–2 (ERX310 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	serial 3/0:10/1/2/2/1

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Table 3: Interface Types and Specifiers for ERX7xx Models, ERX14xx Models, and ERX310 Router *(continued)*

Interface Type	Description	Interface Specifier	Example
• 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 (ERX7xx models), 0–13 (ERX14xx models), and 0–2 (ERX310 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	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 (ERX7xx models), 0–13 (ERX14xx models), and 0–2 (ERX310 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	serial 3/0:1/1

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Table 3: Interface Types and Specifiers for ERX7xx Models, ERX14xx Models, and ERX310 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 (ERX7xx models), 0–13 (ERX14xx models), and 0–2 (ERX310 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	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 (ERX7xx models), 0–13 (ERX14xx models), and 0–2 (ERX310 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 (ERX7xx models), 0–13 (ERX14xx models), and 0–2 (ERX310 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 (ERX7xx models), 0–13 (ERX14xx models), and 0–2 (ERX310 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	tunnel gre:boston

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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		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

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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 16,000 PPPoE subinterfaces per Gigabit Ethernet line module • No VLANs: ◦ *subinterface1*—When using PPPoE, the number of the PPPoE subinterface in the range 1–2147483647; no more than 16,000 PPPoE subinterfaces per Gigabit Ethernet line module ◦ *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

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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

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

Interface Type	Description	Interface Specifier	Example
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
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

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

Interface Type	Description	Interface Specifier	Example
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
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 16,000 PPPoE subinterfaces per 10-Gigabit Ethernet line module • No VLANs: ◦ *subinterface1*—When using PPPoE, the number of the PPPoE subinterface in the range 1–2147483647; no more than 16,000 PPPoE subinterfaces per 10-Gigabit Ethernet line module ◦ *subinterface2*—Not used	tenGigabitEthernet 4/0/1.20

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

Interface Type	Description	Interface Specifier	Example
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	tunnel gre:boston

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CHAPTER 2

N Commands

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nas-port-type atm

Syntax nas-port-type atm { adsl-cap | adsl-dmt | idsl | sdsl | xdsl | cable | wireless-80211 | wireless-cdma | wireless-umts | wireless-1x-ev | wireless-other | iapp | *value* }

no nas-port-type atm

Release Information Command introduced before Release 7.1.0.

Description Specifies the RADIUS NAS-Port-Type attribute (61) used for ATM interfaces. The **no** version removes the NAS-Port-Type setting.

Options

- adsl-cap—Asymmetric DSL, Carrierless Amplitude Phase Modulation
- adsl-dmt—Asymmetric DSL, Discrete Multi-Tone
- idsl—ISDN DSL
- sdsl—Symmetric DSL
- xdsl—DSL of unknown type
- cable—Cable
- wireless-80211—Wireless 802.11
- wireless-cdma—Wireless code division multiple access (CDMA)
- wireless-umts—Wireless universal mobile telecommunications system (UMTS)
- wireless-1x-ev—Wireless 1xEV
- wireless-other—Wireless other
- iapp—Inter Access Point Protocol (IAPP)
- *value*—Number in the range 0–65535

Mode AAA Profile Configuration

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nas-port-type ethernet

Syntax nas-port-type ethernet { cable | wireless-80211 | wireless-cdma | wireless-umts | wireless-1x-ev | wireless-other | iapp | *value* }

no nas-port-type ethernet

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the RADIUS NAS-Port-Type attribute (61) used for Ethernet interfaces. The **no** version removes the NAS-Port-Type setting.

Options

- cable—Cable
- wireless-80211—Wireless 802.11
- wireless-cdma—Wireless code division multiple access (CDMA)
- wireless-umts—Wireless universal mobile telecommunications system (UMTS)
- wireless-1x-ev—Wireless 1xEV
- wireless-other—Wireless other
- iapp—Inter Access Point Protocol (IAPP)
- *value*—Number in the range 0–65535

Mode AAA Profile Configuration

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ndraprefix

Syntax ndraprefix *startIpv6Prefix* { *assignedPrefixLength* | *endIpv6Prefix* }

no ndraprefix *startIpv6Prefix* [force]

Release Information Command introduced in JunosE Release 13.0.0.

Description Specifies the prefix range from which IPv6 prefixes can be assigned to the Neighbor Discovery router advertisement client. The **no** version removes the IPv6 prefix range from the local address pool. You can also forcibly delete an IPv6 prefix range from which prefixes have been allocated.

NOTE: If you attempt to configure a prefix range that overlaps with an existing prefix range in the same pool, an error message is displayed and the configuration fails. Also, an error message is displayed if you try to configure a prefix range that overlaps with a prefix range in another IPv6 local address pool on the same virtual router. Also, an automatic truncation occurs if a higher prefix range is specified.

Options

- *startIpv6Prefix*—Starting IPv6 prefix of the range of prefixes to be delegated to requesting routers
- *endIpv6Prefix*—Ending IPv6 prefix of the range of prefixes to be delegated to requesting routers
- *assignedPrefixLength*—Length of the IPv6 prefix to be assigned from this range of prefixes to the requesting router
- force—Forcibly deletes the IPv6 prefix range from the local address pool

Mode IPv6 NdRa Pool Configuration

Related Documentation

- Configuring IPv6 Neighbor Discovery Local Address Pools

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neighbor

Syntax

For ANCP:

[no] neighbor *neighborName*

For OSPF:

neighbor *ipAddressOspf* [pollinterval *seconds* | priority *number*]

no neighbor *ipAddressOspf* [pollinterval | priority]

For RIP:

[no] neighbor *ipAddressRip*

Release Information

Command introduced before JunosE Release 7.1.0.

Description

For ANCP, creates an ANCP neighbor and accesses the L2C Neighbor Configuration (config-l2c-neighbor) mode. For OSPF, configures OSPF neighbors on an NBMA network. For RIP, specifies a RIP neighbor to which the router sends unicast messages. The **no** version removes the specified neighbor configuration or, by omitting the neighbor name, all ANCP neighbor configurations (ANCP), removes the neighbor (OSPF and RIP), or restores the default values (OSPF).

Options

- *neighborName*—Name of the ANCP neighbor
- *ipAddressOspf*—IP address of the neighbor's interface; this interface must itself be configured for the NBMA network type
- *number*—Router priority value of the neighbor in the range 1–4294967295; default value is 0
- *seconds*—Interval in seconds at which the neighbor is polled; should be much larger than the hello interval (per RFC 1247); in the range 0–255; default value is 120
- *ipAddressRip*—IP address of the neighbor's interface; this interface must be defined as a passive interface with the **passive-interface** command

Mode

Address Family Configuration (RIP), Router Configuration

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neighbor activate

Syntax [no | default] neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } activate

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Specifies a peer or peer group with which routes of the current address family are exchanged. A peer or peer group can be activated in more than one address family. By default, a peer or peer group is activated only for the IPv4 unicast address family. The address families that are actively exchanged over a BGP session are negotiated when the session is established. This command takes effect immediately. The **no** version indicates that routes of the current address family should not be exchanged with the peer or peer group. The **default** version removes the explicit configuration from the peer or peer group and reestablishes inheritance of the feature configuration.

If dynamic capability negotiation was not negotiated with the peer, the session is automatically bounced so that the exchanged address families can be renegotiated in the open messages when the session comes back up.

If dynamic capability negotiation was negotiated with the peer, BGP sends a capability message to the peer to advertise or withdraw the multiprotocol capability for the address family in which this command is issued.

If a neighbor is activated, BGP also sends the full contents of the BGP routing table of the newly activated address family.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.

Mode Address Family Configuration, Router Configuration

Related Documentation

- BGP Signaling for L2VPNs Overview
- Configuring BGP Signaling for VPLS

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neighbor advertise-map

Syntax [no | default] neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } advertise-map *advertiseMapName* { exist-map | non-exist-map } *conditionMapName* [seq *sequenceNumber*]

Release Information Command introduced in JunosE Release 9.0.0.

Description Specifies a peer or peer group within the current address family to which routes specified by the first route map are advertised conditionally, depending on whether the second route map is matched by some other routes in the BGP routing table. The **no** version removes the conditions for advertising the routes to the peer or peer group. The **default** version removes the explicit configuration from the peer or peer group and reestablishes inheritance of the feature configuration.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group all the members of the peer group inherit the characteristic configured with this command
- *advertiseMapName*—Name of a route map that specifies the routes controlled by conditional advertisement; no more than 50 advertise maps can be configured per peer or peer group in an address-family
- *conditionMapName*—Name of a route map that specifies the routes that control conditional advertisement
- *sequenceNumber*—Number, in the range 1–65535, that indicates the position an advertise route map has in the list of advertise route maps configured for a particular neighbor within the same address family; if the sequence number is not specified, the position of the route map is considered to be the sum of the current largest sequence number plus five

Mode Address Family Configuration

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neighbor advertisement-interval

Syntax neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } advertisement-interval *seconds*

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } advertisement-interval [*seconds*]

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Sets the minimum interval between the sending of BGP updates for a given prefix. The **no** version restores the default interval.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- *seconds*—Interval in seconds between update messages; in the range 0–600; default value is 30 seconds for external peers and 5 seconds for internal peers

Mode Address Family Configuration, Router Configuration

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neighbor allow

Syntax [no] neighbor *peerGroupName* allow *accessListName*
[max-peers *maxNumberDynamicPeers*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the peer group so that it accepts inbound connections from any remote address that matches the access list. The **no** version removes the configuration.

Options

- *peerGroupName*—Name of a BGP peer group
- *accessListName*—Name of an access list that specifies remote addresses from which BGP connections may be accepted
- *maxNumberDynamicPeers*—Maximum number of dynamic peers that a member of the peer group may accept

Mode Router Configuration

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neighbor allowas-in

Syntax neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } allowas-in *number*

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } allowas-in [*number*]

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Specifies the number of times that the AS path of a received route may contain the recipient BGP speaker's AS number and still be accepted. The **no** version restores the default state, which is to reject as a loop any route whose path contains the speaker's AS number. IBGP peers in the VPNv4 address family always accept these routes, regardless of the command configuration.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- *number*—Number in the range 1–10

Mode Router Configuration

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neighbor as-override

Syntax [no | default] neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } as-override

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Prevents routing loops between routers within a VPN by substituting the current router's AS number in routing tables for that of the neighboring router. When you issue this command, new policy values are applied to all routes that are sent (outbound policy) or received (inbound policy).

The **no** version halts this substitution. The **default** version removes the explicit configuration from the peer or peer group and reestablishes inheritance of the feature configuration.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command. You cannot override the characteristic for a specific member of the peer group.

Mode Router Configuration

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neighbor bfd-liveness-detection

Syntax neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } bfd-liveness-detection
[minimum-interval *minInterval* |
[minimum-receive-interval *minRecInterval*]
[minimum-transmit-interval *minTransInterval*]] [multiplier *multiplierValue*]

{ no | default } neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* }
bfd-liveness-detection

Release Information Command introduced in JunosE Release 7.2.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Enables BGP to determine quickly whether a BGP neighbor is unreachable by means of a BFD protocol session to the neighbor address or to each member of the specified peer group. The **no** version disables BFD liveness detection for the neighbor or peer-group members. The **default** version removes the explicit configuration from the peer or peer group and reestablishes inheritance of the feature configuration.

NOTE: BFD sessions might not be maintained when the multiplier value is 1 and configured intervals are very short. We recommend that you do not use a multiplier value of 1 with very short intervals.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- *minInterval*—Minimum proposed transmit interval and required receive interval for BFD control packets; has the same effect as configuring the minimum receive interval and the minimum transmit interval to the same value; number in the range 100–65535 milliseconds—for ES2 4G LM only, the range is 10–65535 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—for ES2 4G LM only, the range is 10–65535 milliseconds; default value is 300 milliseconds
- *minTransInterval*—Minimum interval at which the local peer proposes to transmit BFD control packets to the remote peer; number in the range 100–65535 milliseconds—for ES2 4G LM only, the range is 10–65535 milliseconds; default value is 300 milliseconds
- *multiplierValue*—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

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Mode Address Family Configuration, Router Configuration

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neighbor capability

Syntax For all capabilities except ORF:

[no | default] neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } capability { deprecated-dynamic-capability-negotiation | dynamic-capability-negotiation | four-octet-as-numbers | negotiation | route-refresh | route-refresh-cisco }

For the ORF capability:

neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } capability orf { prefix-list | prefix-list-cisco } { send | receive | both }

{ no | default } neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } capability orf { prefix-list | prefix-list-cisco } [send | receive | both]

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Controls advertisement of BGP capabilities to peers. Capability negotiation and advertisement of all capabilities, except the ORF capability, is enabled by default. The **no** version disables capability negotiation or prevents advertisement of the specified capability. The **default** version restores the default condition, advertising the capability.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor; because IPv6 ORF prefix lists are not supported, this variable is valid for the ORF c capability only under the IPv4 address family for advertising IPv4 routes over BGP IPv6 peers
- *peerGroupName*—Name of BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- negotiation—Determines whether the capabilities option is sent in the open message while establishing a session; if it is not sent, no capability negotiation is conducted with that peer
- deprecated-dynamic-capability-negotiation—Indicates support of negotiation of capabilities (sending new capabilities or removing previously negotiated capabilities) without performing a hard clear of the BGP session; the capability data field does not include a list of capabilities that can be dynamically negotiated
- dynamic-capability-negotiation—Indicates support of negotiation of capabilities (sending new capabilities or removing previously negotiated capabilities) without performing a hard clear of the BGP session; the capability data field includes a list of capabilities that can be dynamically negotiated
- four-octet-as-numbers—Indicates support of AS numbers and sub-AS numbers that are four octets in length, in the range 0–4294967295

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- route-refresh—Indicates support of route-refresh messages that request the peer to resend its routes to the router, enabling the BGP speaker to apply modified or new policies to the routes when it receives them again
- route-refresh-cisco—Indicates support of Cisco-proprietary (prestandard) route-refresh messages for interoperability with older Cisco devices
- orf—Indicates support of cooperative route filtering to install a BGP speaker's inbound route filter as an outbound route filter on the peer
- prefix-list—Installs the filter (any inbound prefix list or distribute list) as an outbound prefix list
- prefix-list-cisco—Installs the filter (any inbound prefix list or distribute list) as an outbound Cisco proprietary prefix list
- send—Sends inbound route filter to the peer to install as the outbound route filter
- receive—Accepts inbound route filter from the peer and installs it as the outbound route filter; cannot be configured for a peer group or a peer that is a member of a peer groups
- both—Sends and accepts inbound route filters with the peer for installation as the outbound route filter

Mode Address Family Configuration, Router Configuration

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neighbor default-originate

Syntax neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } default-originate [route-map *mapTag*]

{ no | default } neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } default-originate [route-map [*mapTag*]]

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Allows a BGP speaker (the local router) to send the default route 0.0.0.0/0 to a neighbor for use as a default route. When you issue this command in the route-target address family, BGP advertises the Default-RT-MEM-NLRI route (0:0:0/0). The **no** version halts sending a default route to the neighbor. The **default** version removes the explicit configuration from the peer or peer group and reestablishes inheritance of the feature configuration.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command. You cannot override the characteristic for a specific member of the peer group.
- *mapTag*—Name of route map applied to modify the attributes of the default route or to filter the default route; string of up to 32 characters

Mode Address Family Configuration, Router Configuration

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neighbor description

Syntax neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } description *text*

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } description

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Associates a textual description with a BGP neighbor. The **no** version removes the description.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- *text*—Up to 80 characters of text that describes the neighbor

Mode Address Family Configuration, Router Configuration

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neighbor distribute-list

Syntax neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } distribute-list *accessListName* { in | out }

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } distribute-list [*accessListName*] { in | out }

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Distributes BGP neighbor information as specified in an access list. The **no** version removes an entry.

Using distribute lists is one of several ways to filter BGP advertisements. You can also use route maps or use AS-path filters, as with the **ip as-path access-list** Global Configuration command and the **neighbor filter-list** command.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- *accessListName*—String of up to 32 alphanumeric characters identifying an access list
- in—Applies list to incoming routes (inbound policy)
- out—Applies list to outgoing routes (outbound policy); you cannot configure a member of a peer group to override the inherited peer group characteristic for outbound policy

Mode Address Family Configuration, Router Configuration

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neighbor ebgp-multihop

Syntax [no | default] neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } ebgp-multihop [*ttl*]

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Allows BGP to accept route updates from external peers residing on networks that are not directly connected. The **no** version halts accepting such routers. The **default** version removes the explicit configuration from the peer or peer group and reestablishes inheritance of the feature configuration.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- *ttl*—Maximum number of hops to the peer, in the range 1–255; default value is 255

Mode Address Family Configuration, Router Configuration

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neighbor filter-list

Syntax To apply an access list:

neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } filter-list *accessListName* { in | out }

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } filter-list [*accessListName*] { in | out }

To assign a weight:

neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } filter-list *accessListName* weight *value*

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } filter-list [*accessListName*] weight [*value*]

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Applies an AS path access list to advertisements inbound from or outbound to the specified neighbor, or assigns a weight to incoming routes that match the AS path access list. The **no** version stops the application of the list or assignment of the weight.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- *accessListName*—Name of a single AS path access list; string of up to 32 characters
- in—Applies access list to incoming routes (inbound policy)
- out—Applies access list to outgoing routes (outbound policy); you cannot configure a member of a peer group to override the inherited peer group characteristic for outbound policy
- *value*—Number in the range 0–65535; assigns relative importance to incoming routes matching AS paths

Mode Address Family Configuration, Router Configuration

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neighbor graceful-restart

Syntax [no | default] neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } graceful-restart

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Enables the BGP graceful restart capability for the peer or peer group, 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 disabled by default. The **no** version disables the graceful restart capability. The **default** version removes the explicit configuration from the peer or peer group and reestablishes inheritance of the feature configuration.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.

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neighbor graceful-restart restart-time

Syntax neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } graceful-restart restart-time *seconds*

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } graceful-restart restart-time [*seconds*]

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Sets the time period advertised to a specific peer or peer group 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 peer flushes all routes from this speaker that it marked as stale when the speaker restarted and the session went down. The **no** version restores the default value, 120 seconds.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- *seconds*—Integer in the range 1–3600; default value is 120 seconds

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neighbor graceful-restart stalepaths-time

Syntax neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } graceful-restart stalepaths-time *seconds*

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } graceful-restart stalepaths-time [*seconds*]

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description For a peer or peer group, sets the time period after a peer session restart during which BGP waits for an End-of-RIB marker from the 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.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- *seconds*—Integer in the range 1–3600; default value is 360 seconds

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neighbor ibgp-singlehop

Syntax [no | default] neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } ibgp-singlehop

Release Information Command introduced in JunosE Release 8.0.0.

Description Configures an internal BGP peer to be a single-hop (non-multihop) peer. The **no** version restores the default, wherein internal peer cannot be a single hop. The **default** version removes the explicit configuration from the peer or peer group and reestablishes inheritance of the feature configuration.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.

Mode Address Family Configuration, Router Configuration

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neighbor lenient

Syntax [no] neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } lenient

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Enables lenient behavior to make the BGP speaker more tolerant of malformed packet and finite state machine errors generated by peer, so that the speaker can attempt recovery from the error and avoid bringing down the session. The **no** version disables lenient behavior; this is the default condition.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.

Mode Address Family Configuration, Router Configuration

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neighbor local-as

Syntax neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } local-as *number*

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } local-as [*number*]

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Assigns a local AS number for the specified BGP peer or peer group. The **no** version restores the default value set globally for the BGP instance with the **router bgp** command.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of the BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- *number*—Number in the range 1–4294967295; the local AS to assign to the peer

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neighbor maximum-orf-entries

Syntax neighbor { *ipAddress* | *ipv6Address* } maximum-orf-entries *maximum*

no neighbor { *ipAddress* | *ipv6Address* } maximum-orf-entries [*maximum*]

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Sets the maximum number of ORF entries of a particular type that are accepted from the specified neighbor. The **no** version restores the default value of no limits.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *maximum*—Maximum number of ORF entries in the range 0–4294967295; default value is no limit

Mode Address Family Configuration, Router Configuration

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neighbor maximum-prefix

Syntax neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } maximum-prefix *maximum* [*threshold*] [strict] [warning-only]

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } maximum-prefix [*maximum*][*threshold*] [strict] [warning-only]

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Sets the number of prefixes that can be received from a neighbor. The **no** version removes the maximum prefix limitation.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of the BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- *maximum*—Maximum number of prefixes; default value is no limit
- *threshold*—Percent of maximum at which to log a warning in the range 0–100; default value is 75
- strict—Checks the maximum prefix limit against all received routes rather than the default behavior of checking it only against accepted routes
- warning-only—Causes BGP software to log a warning, rather than reset the connection if the *maximum* or *threshold* value is exceeded

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neighbor maximum-update-size

Syntax neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } maximum-update-size *value*

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } maximum-update-size [*value*]

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Sets the maximum size of update messages transmitted to a BGP peer. The **no** version removes the maximum update size limitation.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of the BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- *value*—Maximum update size in octets in the range 256–4096; default value is 1024

Mode Address Family Configuration, Router Configuration

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neighbor next-hop-self

Syntax [no | default] neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } next-hop-self

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Forces the BGP speaker to report itself as the next hop for an advertised route it advertised to a neighbor. Typically you use this command to prevent third-party next hops from being used on NBMA media such as Frame Relay. The **no** version disables the feature. The **default** version removes the explicit configuration from the peer or peer group and reestablishes inheritance of the feature configuration.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command. You cannot override the characteristic for a specific member of the peer group.

Mode Address Family Configuration, Router Configuration

Related Documentation

- BGP Signaling for L2VPNs Overview
- Configuring BGP Signaling for VPLS

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neighbor next-hop-unchanged

Syntax [no | default] neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } next-hop-unchanged

Release Information Command introduced in JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Configures BGP to not modify the next hop sent to the BGP peer. Outbound route maps take precedence over this command, enabling prefixes that match the route map to be modified, regardless of this command. The **no** version reenables BGP to modify the next hop. The **default** version removes the explicit configuration from the peer or peer group and reestablishes inheritance of the feature configuration.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.

Mode Address Family Configuration

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neighbor passive

Syntax [no | default] neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } passive

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Configures the BGP speaker so that it only accepts inbound connections from, but does not initiate outbound connections to, the peer or peer group. The **no** version permits the initiation of outbound connections. The **default** version removes the explicit configuration from the peer or peer group and reestablishes inheritance of the feature configuration.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.

Mode Router Configuration

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neighbor password

Syntax neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } password [0 | 8] *string*

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } password

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Enables MD5 authentication on a TCP connection between two BGP peers. The **no** version disables MD5 authentication.

Options

- *ipAddress*—IP address of the BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of the BGP peer group to which this neighbor belongs. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- 0—Indicates that the MD5 password is entered in unencrypted form (plaintext)
- 8—Indicates that the MD5 password is entered in encrypted form (ciphertext)
- *string*—MD5 password, an alphanumeric text string of up to 16 characters

Mode Address Family Configuration, Router Configuration

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neighbor peer-group

Syntax Creating a peer group:

neighbor *peerGroupName* peer-group

no neighbor *peerGroupName* [peer-group]

Assigning members to a peer group:

neighbor { *ipAddress* | *ipv6Address* } peer-group *peerGroupName*

no neighbor { *ipAddress* | *ipv6Address* } peer-group [*peerGroupName*]

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description When used from Router Configuration mode without specifying an IP address, creates a BGP peer group. The **no** version removes a peer group.

When used from Router Configuration mode with an IP address or from Address Family Configuration mode, configures a BGP neighbor to be a member of a peer group. The **no** version removes a neighbor from a peer group.

NOTE: You cannot mix IPv4 and IPv6 peer members in a peer group. Only one type peer is allowed, IPv4 or IPv6. For example, the following error is generated if an IPv6 peer group member is added to a peer group that already has IPv4 members; that is, where the peer-group type is IPv4:

```
host1(config-router)#neighbor 1::1 peer-group hamburg
% Unable to set 'peer-group' for address family ipv4:unicast for peer
1::1 in core (IPv6 peer cannot be member of a peer-group of type IPv4)
```

Options

- *peerGroupName*—Name of BGP peer group
- *ipAddress*—IP address of the BGP neighbor that belongs to the peer group specified by the name
- *ipv6Address*—IPv6 address of the BGP neighbor that belongs to the peer group specified by the name
- *peerGroupName*—Name of the BGP peer group to which this neighbor belongs

Mode Address Family Configuration, Router Configuration

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neighbor peer-type

Syntax neighbor *peerGroupName* peer-type { internal | external | confederation }

no neighbor *peerGroupName* peer-type

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the type for the peer group. The **no** version removes the configuration.

Options

- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- internal—Peers must be in the same AS; if confederations are employed, peers must be in the same sub-AS in the same confederation
- external—Peers must be in a different AS
- confederation—Peers must be in a different sub-AS in the same confederation; used only if confederations are employed

Mode Router Configuration

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neighbor prefix-list

Syntax

neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } prefix-list *prefixListName* { in | out }

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } prefix-list [*prefixListName*] { in | out }

Release Information

Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description

Assigns an inbound or outbound prefix list. The **no** version removes the prefix list.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- *prefixListName*—Name of a BGP prefix list
- in—Assigns prefix list to incoming routes (inbound policy)
- out—Assigns prefix list to outgoing routes (outbound policy); you cannot configure a member of a peer group to override the inherited peer group characteristic for outbound policy

Mode

Address Family Configuration, Router Configuration

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neighbor prefix-tree

Syntax

neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* }
prefix-tree *prefixTreeName* { in | out }

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* }
prefix-tree [*prefixTreeName*] { in | out }

Release Information

Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description

Assigns an inbound or outbound prefix tree. The **no** version removes the prefix tree.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor; valid only under the IPv4 address family for advertising IPv4 routes over BGP IPv6 peers
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- *prefixTreeName*—Name of a BGP prefix tree
- in—Assigns prefix tree to incoming routes (inbound policy)
- out—Assigns prefix tree to outgoing routes (outbound policy); you cannot configure a member of a peer group to override the inherited peer group characteristic for outbound policy

Mode

Address Family Configuration, Router Configuration

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neighbor remote-as

Syntax

neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } remote-as *number*

no neighbor { *ipAddress* | *ipv6Address* } [remote-as [*number*]]

no neighbor *peerGroupName* remote-as [*number*]

Release Information

Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description

Adds an entry to the BGP neighbor table. Specifying a neighbor with an AS number that matches the AS number specified in the **router bgp** command identifies the neighbor as internal to the local AS. Otherwise, the neighbor is considered external. This command takes effect immediately. The **no** version removes an entry from the table.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- *number*—Number in the range 1–4294967295; the AS to which the neighbor belongs

Mode

Address Family Configuration, Router Configuration

Related Documentation

- BGP Signaling for L2VPNs Overview
- Configuring BGP Signaling for VPLS

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neighbor remove-private-as

Syntax [no | default] neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } remove-private-as

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Removes private AS numbers in updates sent to external peers. Private AS numbers are only in the range 64,512–65,535. The **no** version halts removing private AS numbers. The **default** version removes the explicit configuration from the peer or peer group and reestablishes inheritance of the feature configuration.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command. You cannot override the characteristic for a specific member of the peer group.

Mode Address Family Configuration, Router Configuration

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neighbor rib-out disable

Syntax [no | default] neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } rib-out disable

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Disables storage of routes to the Adj-RIBs-Out table (disables rib-out) for the neighbor or peer group. Storage is disabled by default. The **no** version enables the route storage. The **default** version removes the explicit configuration from the peer or peer group and reestablishes inheritance of the feature configuration.

NOTE: If you enable or disable rib-out for a peer or peer group and this action changes the current configuration, the peer session or all peer group sessions are automatically bounced.

Options

- *ipAddress*—IP address of BGP neighbor; you can independently enable or disable the Adj-RIBs-Out table for a peer, regardless of whether it is a member of a peer group
- *ipv6Address*—IPv6 address of BGP neighbor; you can independently enable or disable the Adj-RIBs-Out table for a peer, regardless of whether it is a member of a peer group
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, a single Adj-RIBs-Out table is established for the peer group; BGP does not enable individual Adj-RIBs-Out tables for each peer group member.

Mode Address Family Configuration, Router Configuration

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neighbor route-map

Syntax

neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } route-map *mapTag* { in | out }

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } route-map [*mapTag*] { in | out }

Release Information

Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description

Applies a route map to incoming or outgoing routes. If an outbound route map is specified, BGP advertises only routes that match at least one section of the route map. The **no** version removes a route map.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- *mapTag*—Name of the route map; a string of up to 32 alphanumeric characters
- in—Applies route map to incoming routes
- out—Applies route map to outgoing routes; you cannot configure a member of a peer group to override the inherited peer group characteristic for outbound policy

Mode

Address Family Configuration, Router Configuration

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neighbor route-reflector-client

Syntax [no | default] neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } route-reflector-client

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Configures a router as a BGP route reflector and configures the specified neighbor as its client. The **no** version indicates that the neighbor is not a client. The **default** version removes the explicit configuration from the peer or peer group and reestablishes inheritance of the feature configuration.

Options

- *ipAddress*—IP address of BGP neighbor being identified as a client
- *ipv6Address*—IPv6 address of BGP neighbor being identified as a client
- *peerGroupName*—Name of BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command. You cannot override the characteristic for a specific member of the peer group.

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neighbor send-community

Syntax [no | default] neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } send-community [standard | extended | both]

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Enables a BGP speaker to send a community attribute to the peer. The **no** version causes the speaker to send only standard communities to the peer. The **default** version removes the explicit configuration from the peer or peer group and reestablishes inheritance of the feature configuration.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command. You cannot override the characteristic for a specific member of the peer group.
- standard—Sends only standard communities
- extended—Sends only extended communities
- both—Sends both standard and extended communities

Mode Address Family Configuration, Router Configuration

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neighbor send-label

Syntax [no] neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } send-label

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Configures a neighbor to distribute an MPLS label with its IPv4 and IPv6 route advertisements. This command enables BGP to dynamically negotiate SAFI 1 and SAFI 4 with this neighbor. In Router Configuration mode, the command has the same effect as if it were issued in the context of the IPv4 unicast address family. The **no** version removes the configuration.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command. You cannot override the characteristic for a specific member of the peer group.

Mode Address Family Configuration, Router Configuration

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neighbor shutdown

Syntax [no | default] neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } shutdown

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Shuts down the specified neighbor or peer group without removing the neighbor or peer group configuration. The **no** version reenables a neighbor or peer group that was previously shut down. The **default** version removes the explicit configuration from the peer or peer group and reestablishes inheritance of the feature configuration.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.

Mode Address Family Configuration, Router Configuration

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neighbor site-of-origin

Syntax neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } site-of-origin *siteOfOrigin*

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } site-of-origin

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Specifies a site of origin that is added to the extended communities list in each route received from the specified peer, unless the extended communities list already includes a site of origin. When routes are advertised to the peer, routes whose extended communities list contain this site of origin are filtered out and not advertised to the peer. After you issue this command, the site of origin is applied to all routes that are received or advertised. The session is not bounced.

The **no** version removes the site of origin for the peer.

NOTE: To apply the new policy to routes that are already present in the BGP routing table, you must use the **clear ip bgp** command to perform a soft clear or hard clear of the current BGP session.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command. You cannot override the characteristic for a specific member of the peer group.
- *siteOfOrigin*—Designator for the site of origin; in the format *AA:NN*, where any of the following is true:
  - *AA*—AS number in the range 0–65535 and *NN* is an integer in the range 0–4294967295; for example, 320:72358
  - *AA*—AS number in the range 0–4294967295 and *NN* is an integer in the range 0–65535; for example, 84511:45
  - *AA*—Dotted decimal IP address and *NN* is an integer in the range 0–65535; for example, 10.10.21.5:1256

Mode Address Family Configuration, Router Configuration

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neighbor soft-reconfiguration inbound

Syntax [no | default] neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } soft-reconfiguration inbound

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Initiates storage of unmodified copies of routes from the specified neighbor or all members of the specified peer group. The **no** version halts this storage. The **default** version removes the explicit configuration from the peer or peer group and reestablishes inheritance of the feature configuration.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.

Mode Address Family Configuration, Router Configuration

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neighbor timers

Syntax neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } timers *keepaliveTime holdTime*

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } timers [*keepaliveTime*] [*holdTime*]

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Sets keepalive and hold-time timers for the specified neighbor or peer group. Overrides values set for the router with the **timers bgp** command. The **no** version restores the default values.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- *keepaliveTime*—Interval in seconds between keepalive messages, in the range 0–65535 seconds; default value is 30 seconds; a value of zero prevents BGP from sending keepalive messages
- *holdTime*—Period in seconds that BGP waits for keepalive messages before declaring the neighbor to be unavailable, in the range 0–65535 seconds; default value is 90 seconds; a value of zero informs BGP not to expect any keepalive messages

Mode Address Family Configuration, Router Configuration

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neighbor unsuppress-map

Syntax neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } unsuppress-map *mapTag*

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } unsuppress-map [*mapTag*]

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Restores the advertisement of routes suppressed by policy-based route flap dampening. The **no** version restores the default values.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command. You cannot override the characteristic for a specific member of the peer group.
- *mapTag*—Name of the route map; a string of up to 32 alphanumeric characters

Mode Address Family Configuration, Router Configuration

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neighbor update-source

Syntax

neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } update-source
{ *interfaceType interfaceSpecifier* | *updateSourceAddress* | *updateSourcev6Address* }

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } update-source
[*interfaceType interfaceSpecifier* | *updateSourceAddress* | *updateSourcev6Address*]

Release Information

Command introduced before JunosE Release 7.1.0.
ipv6Address variable and *updateSourcev6Address* variable added in JunosE Release 8.0.0.

Description

Allows a BGP session to use the IP address of a specific operational interface as the source address of TCP connections used by BGP. This command takes effect immediately and automatically bounces the BGP session. If you specify an interface in this command and later remove the interface, this command is also removed from the router configuration. The **no** version restores the interface assignment to the closest interface.

NOTE: Removing an interface that was specified in this command effectively removes this command from the router configuration as well.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *updateSourceAddress*—Source IP address
- *updateSourcev6Address*—Source IPv6 address

Mode

Address Family Configuration, Router Configuration

Related Documentation

- BGP Signaling for L2VPNs Overview
- Configuring BGP Signaling for VPWS

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neighbor weight

Syntax neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } weight *value*

no neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } weight [*value*]

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Assigns a weight to a neighbor connection. The **no** version removes a weight assignment. All routes learned from this neighbor will have the assigned weight initially. The route with the highest weight will be chosen as the preferred route when multiple routes are available to a particular network.

The weights assigned with the match as-path and set weight **route-map** commands override the weights assigned with the **neighbor weight** and neighbor filter-list commands.

Options

- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- *value*—Number in the range 0–65535; the weight to assign

Mode Address Family Configuration, Router Configuration

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net

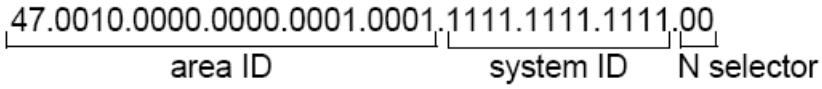
Syntax [no] net *networkEntityTitle*

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures an IS-IS network entity title for the specified routing process. The **no** version removes a specific NET. You must specify a NET. You can add multiple manual area IDs by adding multiple NETs with the same system ID. The last NET cannot be removed.

Options

- *networkEntityTitle*—NET that specifies the area ID and the system ID for an IS-IS routing process; can be either an address or a name; in the form of: *areaID.systemID.nSelector* For example:



  - *areaID*—All bytes in front of the system ID; the number of bytes can vary from 1–13 bytes
  - *systemID*—Always 6 bytes and cannot vary
  - *nSelector*—Last byte; always 0

Mode Router Configuration

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netbios-name-server

Syntax netbios-name-server *ipAddressPrimary* [*ipAddressSecondary*]

no netbios-name-server

Release Information Command introduced before JunosE Release 7.1.0.

Description Assigns a NetBIOS server to subscribers of an address pool. The **no** version removes the association between the address pool and the NetBIOS server.

Options
- *ipAddressPrimary*—IP address of preferred NetBIOS server
- *ipAddressSecondary*—IP address of secondary DNS server

Mode DHCP Local Pool Configuration

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netbios-node-type

Syntax netbios-node-type *nodeType*

no netbios-node-type

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies a NetBIOS node type. The **no** version restores the default situation, in which the node type is unspecified.

Options

- *nodeType*—One of the following types of NetBIOS servers:
  - b-node—NetBIOS Broadcast node
  - p-node—NetBIOS Peer-to-Peer node
  - m-node—NetBIOS mixed node
  - h-node—NetBIOS hybrid node

Mode DHCP Local Pool Configuration

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network

Syntax For BGP:

[no] network { *networkNumber* [[mask] *networkMask*] | *ipv6Prefix* | *rtfPrefix* } [route-map *mapTag*] [weight *weight*] [backdoor]

For DHCP local server:

network *networkAddress* { *networkMask* | *prefix* }

no network [force]

For RIP:

[no] network *networkAddress* [*networkMask*]

Release Information Command introduced before JunosE Release 7.1.0.
rtMemNlri variable added in JunosE Release 9.0.0.
rtMemNlri variable replaced by *rtfPrefix* variable in JunosE Release 9.1.0.

Description For BGP, does one of the following:

- Configures a BGP speaker with an IPv6 or IPv4 prefix originating within its AS that it advertises to its peers if a non-BGP route to the prefix exists in the IP forwarding table. The **no** version removes the prefix.
- Originates a RT-MEM-NLRI route for the prefix that represents the route-target membership NLRI. This route is advertised to all peers that have negotiated the route-target address family. The advertisement is used by the speaker to exhibit interest in or request routes from a specific VPN that is not configured locally. The **no** version removes the prefix.

For DHCP local server, specifies IP addresses that the DHCP local server can provide from an address pool. The **no** version removes the network address and mask.

For RIP, enables RIP on a specific network (not on a range of networks). If you do not associate a network with RIP, the router cannot advertise the network in any RIP update. The **no** version disables RIP on a specific network. If you do not specify a network mask, the router applies the natural mask. Use the **ip rip** commands to configure RIP attributes on the network.

Options

- *networkNumber*—Prefix that BGP will advertise
- *networkMask*—Subnet mask for the network
- *ipv6Prefix*—IPv6 prefix that BGP will advertise
- *rtfPrefix*—Prefix representing the route-target membership NLRI (RT-MEM-NLRI), in the format *asNumber*:*extendedCommunity*/*prefixLength* (for example, 320:320:524/36) where:

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  - *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
- *mapTag*—Name of the route map; a string of up to 32 alphanumeric characters; does not currently work with *rtMemNlri*
- *weight*—Number in the range 0–65535; default value is 32768; assigns an absolute weight to the network route that overrides a weight assigned by the **redistribute** command
- backdoor—Lowers the preference of an EBGP route to the specified prefix by setting the administrative distance to the value of an internal BGP route. Use this option to favor an IGP backdoor route over an EBGP route to a specific network. BGP does not advertise the prefix specified with this option.
- *networkAddress*—IP address of the network
- *prefix*—Network prefix
- force—Deletes address pool even if the pool is in use

Mode Address Family Configuration (BGP, RIP), DHCP Local Pool Configuration (for DHCP local server), Router Configuration (BGP, RIP)

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network area

Syntax [no] network *ipNet maskWildCard* area { *areaId* | *areaIdInt* }

Release Information Command introduced before JunosE Release 7.1.0.

Description Defines the interfaces on which OSPF runs and the area ID for those interfaces. The **no** version deletes OSPF interfaces, ranges, and areas.

NOTE: Before you issue this command, you must first configure one or more interfaces with an IP address that is within the range specified by *ipNet*.

Create address ranges that do not overlap; you can attach only the same range of interfaces to a single area.

Options

- *ipNet*—Network number
- *maskWildCard*—Wild-card mask for the network number
- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value, in the range 0–4294967295

Mode Router Configuration

Related Documentation

- Configuring Routing in the Core Network for VPLS

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next-address

Syntax next-address *ipAddress* [[mask] *ipMask*] [loose]

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures an IPv4 hop at the end of the MPLS explicit path. There is no **no** version.

Options

- *ipAddress*—Address of the node
- *ipMask*—[not currently used] Mask for the next adjacent address
- loose—Indicates that 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

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next-hop

Syntax [no] [suspend] next-hop *address* [classifier-group *claclName*] [precedence *precValue*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Defines the IP address of the next hop for an IP policy list. The **no** version removes a next-hop rule from a policy list; the **suspend** keyword temporarily suspends the rule; the **no suspend** version resumes application of a suspended rule.

NOTE: The **next-hop** command has been replaced by the **forward next-hop** command and may be removed completely in a future release.

The SRP module Fast Ethernet port cannot be the destination of the **next-hop** command.

Options

- *address*—IP address for the next hop
- *claclName*—In Policy List Configuration, specifies the classifier control list used to classify packets for this next-hop policy. If you do not specify a classifier group, the router selects all packets from the interface associated with this policy list for this rule.
- *precValue*—In Policy List Configuration, specifies the precedence of this rule in relation to other rules within this set

Mode Classifier Group Configuration, Policy List Configuration

Related Documentation

- Policy Rule Precedence

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next-interface

Syntax [no] [suspend] next-interface *interfaceType interfaceSpecifier*
[next-hop *nextHop*] [classifier-group *claclName*] [precedence *precValue*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Defines an output interface for an IP policy list. When the *interfaceType* is a broadcast medium, specify a next hop using the **next-hop** command. The **no** version removes a next interface rule from a policy list; the **suspend** keyword temporarily suspends the rule; the **no suspend** version resumes application of a suspended rule. For IP interfaces, this command is supported only on input policies.

NOTE: The **next-interface** command has been replaced by the **forward interface** command and may be removed completely in a future release.

The SRP module Fast Ethernet port cannot be the destination of the **next-interface** command.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *nextHop*—Next-hop IP address
- *claclName*—In Policy List Configuration, specifies the classifier control list used to classify packets for this next-hop policy. If you do not specify a classifier group, the router selects all packets from the interface associated with this policy list for this rule.
- *precValue*—In Policy List Configuration, specifies the precedence of this rule in relation to other rules within this set

Mode Classifier Group Configuration, Policy List Configuration

Related Documentation

- Policy Rule Precedence

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next-parent

Syntax next-parent *parentGroupName*

no next-parent

Release Information Command introduced in JunosE Release 8.0.0.

Description Links the current parent group to the next parent group in a hierarchy. Only external parent groups can be configured as next parent. The **no** version deletes the next parent group.

Options
- *parentGroupName*—Name of the next parent group

Mode Parent Group Configuration

Related Documentation
- Creating a Classifier Group for a Policy List

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no area

Syntax no area { *areaId* | *areaIdInt* }

Release Information Command introduced before JunosE Release 7.1.0.

Description Removes the specified OSPF area if there are no OSPF interfaces configured in the area. This command has only a **no** version.

Options
- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value in the range 0–4294967295

Mode Router Configuration

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no boot hotfix all-releases

Syntax no boot hotfix *hfixFilename* all-releases

Release Information Command introduced in JunosE Release 7.2.0.

Description Disarms all armed hotfixes for all releases. This command has only a **no** version.

NOTE: See also the boot hotfix command.

Options

- *hfixFileName*—Name of a hotfix software file (.hfx) on the local file system

Mode Boot

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no bulkstats

Syntax no bulkstats

Release Information Command introduced before JunosE Release 7.1.0.

Description Removes all bulkstats configurations from the router simultaneously. This command has only a **no** version.

Mode Global Configuration

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no ip interface

Syntax no ip interface

Release Information Command introduced before JunosE Release 7.1.0.

Description Removes the IP configuration from the interface or subinterface and disables IP processing on the interface. This command has only a **no** version.

Mode Interface Configuration, Subinterface Configuration

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no log filters

Syntax no log filters

Release Information Command introduced before JunosE Release 7.1.0.

Description Turns off all log filters. To turn off a specific filter, use the **no** version of the **log severity** command that you used to add the filter. This command has only a **no** version.

Mode Global Configuration

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no radius client

Syntax no radius client

Release Information Command introduced before JunosE Release 7.1.0.

Description Unconfigures all RADIUS servers for the virtual router context and deletes the RADIUS client for the virtual router context. This command has only a **no** version.

Mode Global Configuration

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no rtr

Syntax no rtr

Release Information Command introduced before JunosE Release 7.1.0.

Description Removes all RTR configuration information from the router. This command has only a **no** version.

Mode Global Configuration

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no rtr reaction-configuration

Syntax no rtr reaction-configuration *rtrIndex*

Release Information Command introduced before JunosE Release 7.1.0.

Description Clears all traps for all the **rtr reaction-configuration** command options. This command has only a **no** version.

Options
- *rtrIndex*—Number of the operation to be configured, in the range 1–4294967295

Mode Global Configuration

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no service-management subscriber-session force

Syntax no service-management subscriber-session *subscriberSessionId* force

Release Information Command introduced in JunosE Release 7.2.0.

Description Immediately terminates the specified subscriber session and deletes all service sessions associated with the subscriber session. This command has only a **no** version.

Options
- *subscriberSessionId*—ID of the subscriber session

Mode Global Configuration

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node

Syntax [no] { *typeOfInterface* | set | superset } node [group { *trafficClassGroup* [scheduler-profile *schedulerProfileName*] } | scheduler-profile *schedulerProfileName*]

Release Information Command introduced before JunosE Release 7.1.0.
svlan keyword added in JunosE Release 7.1.0.
set and **superset** keywords added in JunosE Release 9.2.0.

Description Specifies that a scheduler node be configured for each interface of the given interface type. The **no** version removes this rule from the QoS profile.

Options
- *typeOfInterface*—Interface types for scheduler nodes to be configured: atm, atm-vc, atm-vp, bridge, ethernet, fr-vc, ip, ip-tunnel, ipv6, l2tp-session, l2tp-tunnel, lsp, serial, server-port, svlan, vlan
- set—Configures the node for an interface set
- superset—Configures the node for an interface superset
- *trafficClassGroup*—Name of the traffic class group
- *schedulerProfileName*—Name of the scheduler profile

Mode QoS Profile Configuration

Related Documentation
- Configuring a QoS Profile
- Configuring Shadow Nodes
- Configuring a Basic Parameter Definition for QoS Administrators
- Attaching a QoS Profile to an Interface Superset or an Interface Set

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notification id

Syntax notification id { mteEventSetFailure | mteTriggerFailure | mteTriggerFalling | mteTriggerRising }

no notification [id]

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies a trap notification for an event. The **no** version removes the notification.

Options

- id—MIB object for notification use
- mteEventSetFailure—Trap to indicate an event set failure
- mteTriggerFailure—Global trap to indicate the failure of a trigger
- mteTriggerFalling—Trap to indicate a falling trigger event
- mteTriggerRising—Trap to indicate a rising trigger event

Mode SNMP Event Configuration

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nsf ietf

Syntax [no] nsf ietf

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables the IS-IS graceful restart mechanism on the router as defined in RFC 3847—Restart Signaling for Intermediate System to Intermediate System (IS-IS) (July 2004). Graceful restart, which is also known as nonstop forwarding (NSF), allows an IS-IS router to restart with minimal routing disruption to the network. The **no** version restores the default state (disabled) for IS-IS graceful restart on the router.

Mode Router Configuration

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nsf interface wait

Syntax [no] nsf interface wait [*seconds*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the maximum amount of time, in seconds, that an IS-IS process on a restarting router waits for all interfaces with IS-IS adjacencies to come up before completing the restart process. The **no** version restores the default maximum wait time, 10 seconds.

Options

- *seconds*—Maximum wait time, in the range 5–120 seconds, before the IS-IS restart process is completed; default value is 10 seconds

Mode Router Configuration

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nsf t1

Syntax [no] nsf t1 { interval [*seconds*] | retry-times [*number*] }

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies either the interval, in seconds, between IS-IS restart requests sent by a restarting router on a particular interface to neighboring IS-IS routers in the network, or the number of times the restarting router resends unacknowledged restart requests on this interface at the specified interval. The **no** version restores the default time interval, 5 seconds, or the default number of retry attempts, 3.

Options

- *seconds*—Time interval in the range 5–300 seconds between transmission of IS-IS restart requests; default value is 5 seconds
- *number*—Number of times in the range 1–10 that the router tries to resend unacknowledged restart requests; default value is 3

Mode Router Configuration

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nsf t2

Syntax [no] nsf t2 { level-1 | level-2 } [*seconds*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the maximum amount of time, in seconds, that an IS-IS restarting router waits for the LSP database to synchronize. You must configure separate instances of the T2 timer for each IS-IS level at which the router operates. The **no** version restores the default T2 wait time, 100 seconds.

Options

- level-1—Sets the T2 wait time independently for level 1 routing
- level-2—Sets the T2 wait time independently for level 2 routing
- *seconds*—Maximum wait time, in the range 5–600 seconds, for LSP database synchronization; default value is 100 seconds

Mode Router Configuration

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nsf t3

Syntax [no] nsf t3 { manual [*seconds*] | adjacency }

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the maximum amount of time, in seconds, that the restarting router waits before setting the overload bit to indicate that the LSP database has not been synchronized and the IS-IS graceful restart operation has failed. The **no** version restores the default T3 wait time, 200 seconds.

Options

- manual—Sets the T3 wait time manually to the specified number of seconds
- *seconds*—Maximum wait time, in the range 5–900 seconds, before the restarting router sets the overload bit; default value is 200 seconds
- adjacency—Specifies that the restarting router should obtain its T3 wait time from neighboring IS-IS routers that have active adjacencies to this router. This option sets the wait time to the minimum of the remaining times specified in the restart TLVs contained in the hello packets that the router receives from its neighbors.

Mode Router Configuration

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ntp access-group

Syntax ntp access-group { peer | serve-only | serve | query-only } *accessListName*

no ntp access-group { peer | serve-only | serve | query-only }

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the type of broadcasts that the router will accept and respond to, and specifies the servers from which the router will accept broadcasts. The **no** version enables the router to receive all NTP broadcasts on interfaces configured to receive broadcasts.

NOTE: The router can accept, but does not use, NTP control queries.

Options

- peer—Enables the router to receive time requests, receive NTP control queries, and synchronize itself to the servers specified on the access list
- serve-only—Enables the router to receive time requests and NTP control queries from servers specified on the access list, but not to synchronize itself to the specified servers
- serve—Enables the router only to receive time requests from the servers specified on the access list
- query-only—Enables the router only to receive NTP control queries from the servers specified on the access list
- *accessListName*—Name of the access list

Mode Global Configuration

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ntp broadcast

Syntax [no] ntp broadcast [version *number*] [*pollInterval*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables NTP broadcast server on a server interface to transmit NTP broadcast packets periodically. You can enable up to 100 NTP broadcast server interfaces. The **no** version prevents the interface from sending NTP broadcast packets.

Options

- *number*—Integer in the range 1–4; indicates the version of the NTP software on the NTP broadcast server; default value is 3
- *pollInterval*—Integer in the range 4–17; specifies the poll interval in seconds (as a power of 2) for broadcasting NTP messages; default value is 6 (64 seconds)

Mode Interface Configuration

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ntp broadcast-client

Syntax [no] ntp broadcast-client

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables an interface to receive NTP broadcasts. The **no** version prevents an interface from receiving NTP broadcasts.

Mode Interface Configuration

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ntp broadcast-delay

Syntax ntp broadcast-delay *delayTime*

no ntp broadcast-delay

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the estimated round-trip delay between the broadcast NTP server and the router. The **no** version restores the round-trip delay to the default value, 3000 microseconds.

Options
- *delayTime*—Value in the range 0–999999 microseconds

Mode Global Configuration

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ntp disable

Syntax [no] ntp disable

Release Information Command introduced before JunosE Release 7.1.0.

Description Disables NTP on an interface. The **no** version enables NTP on an interface. The default setting is enable.

Mode Interface Configuration

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ntp enable

Syntax [no] ntp enable

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables NTP services on the router and attaches the NTP client to the current virtual router. The **no** version disables reception of NTP packets on the router and removes the association between NTP and the virtual router. The default setting is disable.

Mode Global Configuration

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ntp master

Syntax [no] ntp master [*stratumNumber*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the stratum number of a virtual router you configured as an NTP server. By default, if the router is configured as an NTP server, the stratum number is set to the stratum number of the master plus one. The **no** version restores the default stratum number.

NOTE: Although you can specify a stratum number of 1, the router does not support stratum 1 service. The router can synchronize only with an NTP server, and not directly with an atomic clock or a radio clock.

Options

- *stratumNumber*—Number, in the range 1–15, that indicates how many hops the NTP server is from an accurate time source, such as a radio clock or atomic clock. Stratum *n* servers are *n* hops from an accurate time source; default value is 8

Mode Global Configuration

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ntp server

Syntax ntp server *ipAddress* [version *number*] [prefer]
[source *interfaceType interfaceSpecifier*]

no ntp server *ipAddress*

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies an NTP server for time synchronization. The **source** option for this command overrides the **ntp source** command. The **no** version terminates NTP communications between this server and the interface.

Options

- *ipAddress*—IP address of the NTP server
- *number*—Value from 1 to 4; indicates the version of the NTP software on the server
- prefer—Indicates that this server is the first choice for time synchronization
- source—Directs responses from the NTP server to a specific interface on the router; overrides the **ntp source** command
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5

Mode Global Configuration

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ntp server enable

Syntax [no] ntp server enable

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables a virtual router to act as an NTP server. The **no** version prevents a virtual router from acting as an NTP server.

Mode Global Configuration

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ntp source

Syntax ntp source *interfaceType interfaceSpecifier*

no ntp source

Release Information Command introduced before JunosE Release 7.1.0.

Description Directs responses from all NTP servers to a specific interface. Using the **source** option with the **ntp server** command overrides the **ntp source** command. The **no** version restores the default situation in which servers reply to the interface from which the NTP request was sent.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5

Mode Global Configuration

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CHAPTER 3

O Commands

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oam ais-rdi

Syntax oam ais-rdi [*alarmDownCount* [*alarmClearTimeout*]]

no oam ais-rdi

Release Information Command introduced in JunosE Release 7.1.0.
ATM VC Class Configuration mode added in JunosE Release 7.3.0.

Description In ATM VC Configuration mode, configures surveillance parameters for alarm indication signal (AIS) and remote defect indication (RDI) F5 OAM fault management cells on an ATM PVC. The **oam ais-rdi** command is valid only for data PVCs; you cannot use this command for control (ILMI or signaling) PVCs. The **no** version restores the default behavior, which disables F5 OAM alarm surveillance and restores the default values for alarm down count and alarm clear timeout duration.

In ATM VC Class Configuration mode, configures alarm surveillance parameters for AIS and RDI F5 OAM cells as part of a VC class definition that you assign to an ATM data PVC. The **no** version restores the default behavior, which disables F5 OAM alarm surveillance and restores the default values for alarm down count and alarm clear timeout duration, in the VC class.

NOTE: To configure the alarm down count and alarm clear timeout F5 OAM surveillance parameters, you must use the **oam ais-rdi** command. There is no equivalent **atm pvc** command to configure these parameters.

Options

- *alarmDownCount*—Number of successive alarm cells, in the range 1–60, for the router to receive before reporting that a PVC is down; default value is 1
- *alarmClearTimeout*—Number of seconds, in the range 3–60, for the router to wait before reporting that a PVC is up after the PVC has stopped receiving alarm cells; default value is 3

Mode ATM VC Configuration, ATM VC Class Configuration

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oam cc

Syntax oam cc [segment | end-to-end] { source | sink | both }

no oam cc

Release Information Command introduced in JunosE Release 7.1.0.
ATM VC Class Configuration mode added in JunosE Release 7.3.0.

Description In ATM VC Configuration mode, enables F5 OAM continuity check (CC) verification on an ATM PVC. The **oam cc** command is valid only for data PVCs; you cannot use this command for control (ILMI or signaling) PVCs. The **no** version restores the default behavior, which disables F5 OAM CC verification and restores the default setting for cell termination, **end-to-end**.

In ATM VC Class Configuration mode, enables F5 OAM CC verification as part of a VC class definition that you assign to an ATM data PVC. The **no** version restores the default setting for cell termination, **end-to-end**, in the VC class.

Options
- segment—Opens an F5 OAM CC segment cell flow
- end-to-end—Opens an F5 OAM CC end-to-end cell flow
- source—Enables this VC as the source point (cell generator)
- sink—Enables this VC as a sink point (cell receiver)
- both—Enables this VC as both a sink point and a source point

Mode ATM VC Configuration, ATM VC Class Configuration

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oam-pvc

Syntax oam-pvc [manage] [*loopbackFrequency*]

no oam-pvc [manage]

Release Information Command introduced in JunosE Release 7.1.0.
ATM VC Class Configuration mode added in JunosE Release 7.3.0.

Description In ATM VC Configuration mode, enables generation of F5 OAM loopback cells on an ATM PVC and, optionally, enables F5 OAM VC integrity features that affect the operational state of the circuit. The **oam-pvc** command is valid only for data PVCs configured with **aal5snap**, **aal5autoconfig**, or **aal5mux ip** 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 F5 OAM VC integrity and restores the default value for loopback frequency.

In ATM VC Class Configuration mode, enables generation of F5 OAM loopback cells and, optionally, enables F5 OAM VC integrity features as part of a VC class definition that you assign to an ATM data PVC. The **no** version restores the default behavior, which disables F5 OAM VC integrity and restores the default loopback frequency, in the VC class.

Options

- manage—Enables F5 OAM VC integrity on the ATM PVC
- *loopbackFrequency*—Number of seconds, in the range 1–600, for the router to wait between the transmission of loopback cells during normal operation; default value is 10

Mode ATM VC Configuration, ATM VC Class Configuration

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oam retry

Syntax oam retry [*upRetryCount* [*downRetryCount retryFrequency*]]

no oam retry

Release Information Command introduced in JunosE Release 7.1.0.
ATM VC Class Configuration mode added in JunosE Release 7.3.0.

Description In ATM VC Configuration mode, configures parameters for F5 OAM VC integrity on an ATM PVC. The **oam retry** command is valid only for data PVCs; you cannot use this command for control (ILMI or signaling) PVCs. The **no** version restores the default values for all of these parameters.

In ATM VC Class Configuration mode, configures F5 OAM VC integrity parameters as part of a VC class definition that you assign to an ATM PVC. The **no** version restores the default values for all of these parameters in the VC class.

NOTE: To configure the up retry count, down retry count, and retry frequency F5 OAM VC integrity parameters, you must use the **oam retry** command. There is no equivalent **atm pvc** command to configure these parameters.

Options

- *upRetryCount*—Number of successive loopback cell responses, in the range 1–60, for the router to receive before reporting that a PVC is up; default value is 3
- *downRetryCount*—Number of successive loopback cell responses, in the range 1–60, for the router to miss before reporting that a PVC is down; default value is 5
- *retryFrequency*—Number of seconds, in the range 1–600, for the router to wait between the transmission of loopback cells when it is verifying the state of the PVC; default value is 1

Mode ATM VC Configuration, ATM VC Class Configuration

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operational-virtual-router

Syntax operational-virtual-router *vrName*

no operational-virtual-router

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the virtual router parameter for a user entry in the local user database. The subscriber is assigned to the operational virtual router only if the default virtual router performs the authentication. The **no** version deletes the operational virtual router parameter from the user entry in the local user database.

Options
- *vrName*—Name of virtual router

Mode Local User Configuration

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operations-per-hop

Syntax operations-per-hop *operationsHopValue*

no operations-per-hop

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the number of operations sent to a designated hop before the TTL value is increased. This option applies only to the pathEcho type. The **no** version restores the default value, 3.

Options
- *operationsHopValue*—Number of operations per hop; default value is 3

Mode RTR Configuration

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organization

Syntax [no] organization *organizationName*

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the organization used in the Subject Name field of certificates. The **no** version removes the organization name.

Options
- *organizationName*—Name used in certificate requests; up to 60 characters

Mode IPsec Identity Configuration

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ospf auto-cost reference-bandwidth

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

Release Information Command introduced before JunosE Release 7.1.0.

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

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

Mode Router Configuration

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ospf bandwidth

Syntax [no] ospf bandwidth

Release Information Command introduced in JunosE Release 10.3.0.

Description Directs the router to use the bandwidth configured on an OSPF interface for OSPF interface cost calculation. If you configure the bandwidth and then issue the **no ospf bandwidth** command, the router ignores the cost that is calculated using the configured bandwidth. The **no** version disables the use of the bandwidth for OSPF interface cost calculation.

Mode Router Configuration

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ospf enable

Syntax ospf enable

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables OSPF on the router. There is no **no** version.

NOTE: The **no ospf enable** command has been replaced by the **ospf shutdown** command and may be removed completely in a future release.

Mode Router Configuration

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ospf log-adjacency-changes

Syntax [no] ospf log-adjacency-changes
[severity { *severityValue* | *severityNumber* }] [verbosity *verbosityLevel*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the router to send a system log message when the state of an OSPFv2 neighbor changes. For OSPFv3 neighbors, use the log-adjacency-changes command. The **no** version turns off this feature.

Options

- severity—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*—Specifies the verbosity of the log category's messages; can be any of the following:
  - low—Terse
  - medium—Moderate detail
  - high—Verbose

Mode Router Configuration

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ospf shutdown

Syntax [no] ospf shutdown

Release Information Command introduced before JunosE Release 7.1.0.

Description Administratively disables OSPF on the router. The **no** version reenables OSPF on the router.

NOTE: This command is replacing the **no** ospf enable command to disable OSPF on the router. The **no** ospf enable command may be removed completely in a future release.

Mode Router Configuration

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overload advertise-high-metric issu

Syntax [no] overload advertise-high-metric issu

Release Information Command introduced in JunosE Release 9.0.0.

Description Configures IS-IS or OSPF to advertise the maximum link cost on each interface to its neighbors when a unified in-service software upgrade is started, causing neighbors to route around the upgrading router. The **no** version restores the default behavior, which is to advertise configured link costs.

Mode Router Configuration

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overload shutdown

Syntax [no] overload shutdown

Release Information Command introduced before JunosE Release 7.1.0.

Description Causes BGP to shut down when it runs out of resources. The **no** version restores the default behavior, which is to continue running.

Mode Router Configuration

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override c2 byte

Syntax [no] override c2 byte

Release Information Command introduced before JunosE Release 7.1.0.

Description Overrides the default value of the Path Signal Label (C2) byte for SONET and SDH interfaces. The **no** version restores the default setting.

Mode Controller Configuration

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override-user

Syntax override-user [name *newName*] password *newPassword*

no override-user

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies a single username and single password for all users from a domain. The **no** version removes the username and reverts to the original username.

Options
- *newName*—Identifier that replaces the username
- *newPassword*—Password that replaces the user's password

Mode Domain Map Configuration

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owner

Syntax owner *ownerValue*

no owner

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the owner of the RTR operation. The **no** version restores the default value.

Options
- *ownerValue*—Specifies the owner's identifier: 0–255 ASCII characters; by default, no owner is configured

Mode RTR Configuration

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CHAPTER 4

P Commands

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packet-drop-monitoring threshold

Syntax packet-drop-monitoring threshold *thresholdValue*

no packet-drop-monitoring threshold

Release Information Command introduced in JunosE Release 13.3.0.

Description Configures the threshold value to log a warning message for packets dropped in the forwarding path. The **no** version sets the value to 0, which disables logging of warning messages.

Options
- *thresholdValue* —Threshold value in the range 1–2147483648. The default value is 0.

Mode Global Configuration

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padn

Syntax padn *ipAddress ipMask distance*

no padn *ipAddress ipMask*

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures PADN parameters for a domain name. The **no** version deletes the PADN parameters from the domain name.

Options
- *ipAddress*—Destination IP address
- *ipMask*—IP mask for the destination
- *distance*—Administrative distance metric for this route in the range 0–255

Mode Domain Map Configuration

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parent-group

Syntax

In Global Configuration mode:

[no] parent-group *parentGroupName*

In Policy List Configuration mode:

parent-group *parentGroupName* [[parent-group *intParentGroupName*] |
[external parent-group *extParentGroupName* parameter *parameterName*]]

no parent-group *parentGroupName*

Release Information

Command introduced in JunosE Release 7.2.0.
Global Configuration mode added in JunosE Release 8.0.0.
external, **parent-group**, and **parameter** keywords and *extParentGroupName* and *parameterName* variables added in JunosE Release 8.0.0.

Description

In Global Configuration mode, creates an external parent group and accesses Parent Group Configuration mode. The **no** version removes the external parent group.

In Policy List Configuration mode, creates an internal parent group in the policy list and accesses Policy List Parent Group Configuration mode. The **no** version removes the parent group from the policy list.

Options

- *parentGroupName*—Name of the parent group
- *intParentGroupName*—Name of the next internal parent group to connect to in the hierarchy
- *extParentGroupName*—Name of the next external parent group to connect to in the hierarchy
- *parameterName*—Name of the parameter

Mode

Global Configuration, Policy List Configuration

Related Documentation

- Creating a Classifier Group for a Policy List

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passive-interface

Syntax IS-IS:

passive-interface *interfaceType interfaceSpecifier* [tag *tagValue*]
[metric *metricValue* [level-1 | level-2]]

no passive-interface *interfaceType interfaceSpecifier* [tag] [metric [level-1 | level-2]]

OSPF and RIP:

[no] passive-interface *interfaceType interfaceSpecifier*

Release Information Command introduced before JunosE Release 7.1.0.
metric keyword and *metricValue* variable for IS-IS added in JunosE Release 9.0.0.

Description Modifies the transmission of routing updates for IS-IS, OSPF, and RIP.

For IS-IS, configures an IS-IS interface only to advertise its IP address in the link-state PDUs; the interface does not send or receive IS-IS packets. Issue the complementary **interface** command to enable the interface to send and receive IS-IS packets. Optionally, you can set a route tag value for the IP addresses on an IS-IS passive interface before the route is propagated to other routers in an IS-IS domain. You can set a metric value for the passive interface; the default value is 0. The **no** version disables advertisement of the IP address, or unconfigures the tag, the metric, or both.

For OSPF, halts the transmission of routing updates on an OSPF interface. OSPF neither sends nor receives routing information through the specified interface, which appears as a stub network in the OSPF network. The **no** version reenables the transmission of routing updates.

For RIP, halts the transmission of multicast RIP messages. RIP messages are unicast to the interface (if it is the best path to a configured neighbor). The **no** version reenables the transmission of multicast messages on the interface.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *tagValue*—Number, in the range 1–4294967295, that identifies the route tag assigned to the IS-IS passive interface
- *metricValue*—Metric used when advertising the passive interface; in the range 1–16777215; default value is 0

Mode Address Family Configuration (RIP), Router Configuration (IS-IS, OSPF, RIP)

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password

Syntax

Login password:

password [*encryptionType*] *passwordValue*

no password

L2TP tunnel password:

password *tunnelPassword*

no password

IP service profile password:

password *servicePassword*

no password

Local user database password:

password [*encryptionType*] *passwordValue*

no password

Release Information

Command introduced before JunosE Release 7.1.0.

Description

Configures a password to be used at login on the console, a line or a range of lines. For L2TP, specifies the password for an AAA domain map or tunnel group tunnel. For IP service profiles, specifies the password for the profile. For the local authentication server feature, adds a password to a user entry in the local user database. If you enable password checking but do not configure a password, the system will not allow you to access virtual terminals. Specify a password in plain text (unencrypted) or cipher text (encrypted). In either case, the system stores the password as encrypted. The **no** version removes the password.

NOTE: To use an encrypted password, you must follow the procedure in *Creating Encrypted Passwords* in the *JunosE System Basics Configuration Guide* to obtain the encrypted password. You cannot create your own encrypted password; you must use a router-generated password or secret.

Options

- *encryptionType*—One of the following types:
  - 0—Unencrypted (the default)
  - 5—Secret

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  - 7—Encrypted

- *passwordValue*—Character string that specifies the line password. The first character cannot be a number. The string can contain any alphanumeric characters, including spaces, up to 50 characters. The password checking is case sensitive.
- *tunnelPassword*—Password of up to 32 characters
- *servicePassword*—Password of up to 32 characters
- *encryptionType*—One of the following types:
  - 0—Unencrypted password (the default)
  - 8—Two-way encrypted password
- *passwordValue*—Character string that specifies the password. The string can contain any alphanumeric character, including spaces, up to 64 characters. Passwords are case sensitive.

Mode Domain Map Tunnel Configuration (for a tunnel password), IP Service Profile Configuration (for a service profile password), Line Configuration (for a login password), Local User Configuration (for a local user database password), Tunnel Group Tunnel Configuration (for a tunnel group tunnel password)

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path

Syntax path *pathChannel* [*pathSpeed* [*pathHierarchy*]]

no path *pathChannel*

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures paths over channelized SONET and SDH interfaces. The **no** version deletes a path.

NOTE: **Although the path speed appears to be optional in the software, you must specify a value.**

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the STS-1 or STM-0 line
- *pathSpeed*—Speed of the path
  - oc1, oc3, or oc12 for SONET—Only oc1 is available for cOC3/STM1 interfaces
  - stm0, stm1, or stm4 for SDH—Only stm0 or stm1 is available for cOC3/STM1 interfaces
- *pathHierarchy*—Identifier that defines the structure of the path
  - If you specify a path speed that matches the speed of the module (for example, a path speed of stm1 for a cOC3/STM1 interface), do not specify an identifier.
  - If you specify a speed of oc1 or stm0 for a cOC3/STM1 interface, the identifier is a number, in the range 1–3, that represents either the STS-1 within the STS-3 or the STM-0 within the STM-1.
  - If you specify a speed of stm1 for a cOC12/STM4 interface, the identifier is a number, in the range 1–4, that represents the STM-1 within the STM-4.
  - If you specify a speed of oc1 or stm0 for a cOC12/STM4 interface, the identifier is of the form X/Y. X is a number, in the range 1–4, that represents either the STS-3 within the STS-12 or the STM-1 within the STM-4; Y is a number, in the range 1–3, that represents either the STS-1 within the STS-3 or the STM-0 within the STM-1.

Mode Controller Configuration

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path description

Syntax For unchannelized SONET/SDH interfaces:

[no] path description *name*

For channelized SONET/SDH interfaces:

[no] path *pathChannel* description *name*

Release Information Command introduced in JunosE Release 7.2.0.

Description Assigns a text description or an alias to a path on a channelized or unchannelized SONET/SDH interface. The **no** version removes the description or alias.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *name*—Text string or alias of up to 80 characters

Mode Controller Configuration

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path ds1|e1

Syntax path *pathChannel* { ds1 | e1 } *tributaryIdentifier* [*tributaryType*]

[no] path *pathChannel* { ds1 | e1 } *tributaryIdentifier* [*tributaryType*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Creates and configures SONET and SDH tributaries. The **no** version deletes a tributary.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *tributaryIdentifier*—Specifier for the tributary in the format *pathChannel* { ds1 | e1 } *pathPayload/tributaryGroup/tributaryNumber*
  - *pathPayload*—Payload number for the path; value is 1 for SONET and in the range 1–3 for SDH
  - *tributaryGroup*—Number, in the range 1–7, that identifies the group within the path
  - *tributaryNumber*—Number of the tributary within the tributary group; the value is in the range 1–4 if the tributary type is vt15 or tu11 and in the range 1–3 if the tributary type is tu12
- *tributaryType*—Virtual tributary type
  - vt15—Default for SONET DS1 tributaries
  - tu11—Default for SDH DS1 tributaries
  - tu12—Default for SDH E1 tributaries

Mode Controller Configuration

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path ds1|e1 bert

Syntax

path *pathChannel* { ds1 | e1 } *tributaryIdentifier* bert
pattern *pattern* interval *time* [unframed]

no path *pathChannel* { ds1 | e1 } *tributaryIdentifier* bert

Release Information

Command introduced before JunosE Release 7.1.0.

Description

Enables bit error rate tests using the specified pattern at the DS1/E1 over SONET/SDH VT layer on channelized SONET and SDH interfaces. The **no** version stops the test that is running.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *tributaryIdentifier*—Specifier for the tributary in the format *pathChannel* { ds1 | e1 } *pathPayload/tributaryGroup/tributaryNumber*
  - *pathPayload*—Payload number for the path; value is 1 for SONET and in the range 1–3 for SDH
  - *tributaryGroup*—Number, in the range 1–7, that identifies the group within the path
  - *tributaryNumber*—Number of the tributary within the tributary group; the value is in the range 1–4 if the tributary type is vt15 or tu11 and in the range 1–3 if the tributary type is tu12
- *pattern*—One of the following test patterns:
  - 2^11—Pseudorandom test pattern, 2,047 bits long
  - 2^15—Pseudorandom test pattern, 32,767 bits long
  - 2^20-O153—Pseudorandom test pattern, 1,048,575 bits long
- *time*—Duration of the test, in the range 1–1440 minutes
- unframed—Test bit pattern occupies all bits on the link, overwriting the framing bits. If you do not specify this keyword, the test bit pattern occupies only T1/E1 payload bits.

Mode

Controller Configuration

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path ds1|e1 channel-group description

Syntax

path *pathChannel* { ds1 | e1 } *tributaryIdentifier*
channel-group *channelGroupNumber* description *name*

no path *pathChannel* { ds1 | e1 } *tributaryIdentifier*
channel-group *channelGroupNumber* description

Release Information

Command introduced before JunosE Release 7.1.0.

Description

Assigns a text description or an alias to a DS1 (T1) or an E1 channel group for channelized SONET and SDH interfaces. Use the **show controllers sonet** command to display the text description. The **no** version removes the description or alias.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *tributaryIdentifier*—Specifier for the tributary in the format *pathChannel* { ds1 | e1 } *pathPayload/tributaryGroup/tributaryNumber*
  - *pathPayload*—Payload number for the path; value is 1 for SONET and in the range 1–3 for SDH
  - *tributaryGroup*—Number, in the range 1–7, that identifies the group within the path
  - *tributaryNumber*—Number of the tributary within the tributary group; the value is in the range 1–4 if the tributary type is vt15 or tu11 and in the range 1–3 if the tributary type is tu12
- *channelGroupNumber*—Either a fractional T1 interface in the range 1–24 or a fractional E1 interface in the range 1–31
- *name*—Text string or alias of up to 80 characters for the DS1 or E1 channel group for channelized SONET and SDH interfaces

Mode

Controller Configuration

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path ds1|e1 channel-group shutdown

Syntax [no] path *pathChannel* { ds1 | e1 } *tributaryIdentifier*
channel-group *channelGroupNumber* shutdown

Release Information Command introduced before JunosE Release 7.1.0.

Description Disables a DS1 or an E1 channel group on channelized SONET and SDH interfaces. DS1 and E1 channel groups are enabled by default. The **no** version restarts a disabled interface.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *tributaryIdentifier*—Specifier for the tributary in the format *pathChannel* { ds1 | e1 } *pathPayload/tributaryGroup/tributaryNumber*
  - *pathPayload*—Payload number for the path; value is 1 for SONET and in the range 1–3 for SDH
  - *tributaryGroup*—Number, in the range 1–7, that identifies the group within the path
  - *tributaryNumber*—Number of the tributary within the tributary group; the value is in the range 1–4 if the tributary type is vt15 or tu11 and in the range 1–3 if the tributary type is tu12
- *channelGroupNumber*—Either a fractional T1 interface in the range 1–24 or a fractional E1 interface in the range 1–31

Mode Controller Configuration

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path ds1|e1 channel-group snmp trap link-status

Syntax [no] path *pathChannel* { ds1 | e1 } *tributaryIdentifier*
channel-group *channelGroupNumber* snmp trap link-status

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables SNMP link status processing on a DS1 or an E1 channel group of channelized SONET and SDH interfaces. The **no** version disables SNMP link status processing on a DS1 or an E1 channel group.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *tributaryIdentifier*—Specifier for the tributary in the format *pathChannel* { ds1 | e1 } *pathPayload/tributaryGroup/tributaryNumber*
  - *pathPayload*—Payload number for the path; value is 1 for SONET and in the range 1–3 for SDH
  - *tributaryGroup*—Number, in the range 1–7, that identifies the group within the path
  - *tributaryNumber*—Number of the tributary within the tributary group; the value is in the range 1–4 if the tributary type is vt15 or tu11 and in the range 1–3 if the tributary type is tu12
- *channelGroupNumber*—Either a fractional T1 interface in the range 1–24 or a fractional E1 interface in the range 1–31

Mode Controller Configuration

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path ds1|e1 channel-group timeslots

Syntax

path *pathChannel* { ds1 | e1 } *tributaryIdentifier*
channel-group *channelGroupNumber* timeslots *range* [speed { 56 | 64 }]

no *pathChannel* { ds1 | e1 } *tributaryIdentifier* channel-group *channelGroupNumber*

Release Information

Command introduced before JunosE Release 7.1.0.

Description

Configures DS1 or E1 line parameters on channelized SONET and SDH interfaces. To configure a line, you specify a DS1 or an E1 channel group number and assign a range of timeslots. To configure a whole DS1 or E1 line, assign all the timeslots to the channel group. You can specify a line speed that applies to all DS0 timeslots assigned to a channel group. The **no** version removes the timeslots from the channel group.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *tributaryIdentifier*—Specifier for the tributary in the format *pathChannel* { ds1 | e1 } *pathPayload/tributaryGroup/tributaryNumber*
  - *pathPayload*—Payload number for the path; value is 1 for SONET and in the range 1–3 for SDH
  - *tributaryGroup*—Number, in the range 1–7, that identifies the group within the path
  - *tributaryNumber*—Number of the tributary within the tributary group; the value is in the range 1–4 if the tributary type is vt15 or tu11 and in the range 1–3 if the tributary type is tu12
- *channelGroupNumber*—Either a fractional T1 interface in the range 1–24 or a fractional E1 interface in the range 1–31
- *range*—Timeslot assigned to the T1 or E1 channel in the range 1–31. A dash represents a range of timeslots, and a comma separates timeslots. For example, 1-10, 15-18 assigns timeslots 1–10 and 15 –18.
- speed—Specifies the data rate for the T1 or E1 channel, either 56 Kbps or 64 Kbps; default value is 64 Kbps

Mode

Controller Configuration

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path ds1|e1 clock source

Syntax path *pathChannel* { ds1 | e1 } *tributaryIdentifier* clock source { line | internal { module | chassis } }

no path *pathChannel* { ds1 | e1 } *tributaryIdentifier* clock source

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the transmit clock source for DS1 or E1 channels over channelized SONET and SDH interfaces. The **no** version restores the default value.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *tributaryIdentifier*—Specifier for the tributary in the format *pathChannel* { ds1 | e1 } *pathPayload/tributaryGroup/tributaryNumber*
  - *pathPayload*—Payload number for the path; value is 1 for SONET and in the range 1–3 for SDH
  - *tributaryGroup*—Number, in the range 1–7, that identifies the group within the path
  - *tributaryNumber*—Number of the tributary within the tributary group; the value is in the range 1–4 if the tributary type is vt15 or tu11 and in the range 1–3 if the tributary type is tu12
- line—Interface transmits data from a clock recovered from the line's receive data stream.
- internal—Interface transmits data using 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

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path ds1|e1 description

Syntax path *pathChannel* { ds1 | e1 } *tributaryIdentifier* [*tributaryType*] description *name*

no path *pathChannel* { ds1 | e1 } *tributaryIdentifier* [*tributaryType*] description

Release Information Command introduced before JunosE Release 7.1.0.

Description Assigns a text description or an alias to a DS1 or an E1 signal. This command applies to a DS1/E1 over SONET/SDH VT layer on channelized SONET and SDH interfaces. Use the show controllers sonet command to display the text description. The **no** version removes the description or alias.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *tributaryIdentifier*—Specifier for the tributary in the format *pathChannel* { ds1 | e1 } *pathPayload/tributaryGroup/tributaryNumber*
  - *pathPayload*—Payload number for the path; value is 1 for SONET and in the range 1–3 for SDH
  - *tributaryGroup*—Number, in the range 1–7, that identifies the group within the path
  - *tributaryNumber*—Number of the tributary within the tributary group; the value is in the range 1–4 if the tributary type is vt15 or tu11 and in the range 1–3 if the tributary type is tu12
- *tributaryType*—Virtual tributary type
  - vt15—Default for SONET DS1 tributaries
  - tu11—Default for SDH DS1 tributaries
  - tu12—Default for SDH E1 tributaries
- *name*—Text string or alias of up to 80 characters for the T1/E1 over SONET/SDH VT layer on channelized SONET and SDH interfaces

Mode Controller Configuration

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path ds1|e1 framing

Syntax path *pathChannel* { ds1 | e1 } *tributaryIdentifier* framing *framingType*

no path *pathChannel* { ds1 | e1 } *tributaryIdentifier* framing

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the framing format for a DS1 or an E1 signal when DS1/E1 is configured over channelized SONET and SDH interfaces. The **no** version restores the default value.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *tributaryIdentifier*—Specifier for the tributary in the format *pathChannel* { ds1 | e1 } *pathPayload/tributaryGroup/tributaryNumber*
  - *pathPayload*—Payload number for the path; value is 1 for SONET and in the range 1–3 for SDH
  - *tributaryGroup*—Number, in the range 1–7, that identifies the group within the path
  - *tributaryNumber*—Number of the tributary within the tributary group; the value is in the range 1–4 if the tributary type is vt15 or tu11 and in the range 1–3 if the tributary type is tu12
- *framingType*—One of the following types:
  - crc4—Cyclic redundancy check (default for E1); not available for T1
  - no-crc4—No cyclic redundancy check; not available for T1
  - esf—Extended superframe (T1 default); not available for E1
  - sf—Superframe; not available for E1

Mode Controller Configuration

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path ds1|e1 loopback

Syntax

path *pathChannel* { ds1 | e1 } *tributaryIdentifier* loopback
{ local | network { line | payload } }

no path *pathChannel* { ds1 | e1 } *tributaryIdentifier* loopback

path *pathChannel* ds1 *tributaryIdentifier* loopback remote
{ line fdl { ansi | bellcore } | payload [fdl] [ansi] }

no path *pathChannel* { ds1 | e1 } *tributaryIdentifier* loopback remote

Release Information

Command introduced before JunosE Release 7.1.0.

Description

Configures a loopback at the DS1/E1 over SONET/SDH VT layer on channelized SONET and SDH interfaces. The **no** version turns off the loopback.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *tributaryIdentifier*—Specifier for the tributary in the format *pathChannel* { ds1 | e1 } *pathPayload/tributaryGroup/tributaryNumber*
  - *pathPayload*—Payload number for the path; value is 1 for SONET and in the range 1–3 for SDH
  - *tributaryGroup*—Number, in the range 1–7, that identifies the group within the path
  - *tributaryNumber*—Number of the tributary within the tributary group; the value is in the range 1–4 if the tributary type is vt15 or tu11 and in the range 1–3 if the tributary type is tu12
- local—Loops the router output data back toward the router at the T1/E1 framer; on supported line modules also sends an alarm indication signal (AIS) out toward the network.
- network { line | payload }—Specify the **line** keyword to loop the data back toward the network before the T1/E1 framer and automatically set a local loopback at the HDLC controllers. Specify the **payload** keyword to loop the payload data back toward the network at the T1/E1 framer and automatically set a local loopback at the HDLC controllers.
- remote line fdl ansi (T1 line only)—Sends a repeating 16-bit ESF data link code word (00001110 11111111) to the remote end requesting that it enter into a network line loopback. Specify the **ansi** keyword to enable the remote line FDL ANSI bit loopback on the T1 channel, according to the ANSI T1.403 specification.
- remote line fdl bellcore (T1 line only)—Sends a repeating 16-bit ESF data link code word (00010010 11111111) to the remote end requesting that it enter into a network line loopback. Specify the **bellcore** keyword to enable the remote line FDL Bellcore bit loopback on the T1 channel, according to the Bellcore TR-TSY-000312 specification.
- remote payload [fdl] [ansi] (T1 line only)—Sends a repeating 16-bit ESF data link code word (00010100 11111111) to the remote end requesting that it enter into a network

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payload loopback. Enables the remote payload FDL ANSI bit loopback on the T1 channel. You can optionally specify **fdl** and **ansi**, but it is not necessary.

NOTE: You cannot send an inband pattern to the remote end requesting that it enter into a network line loopback.

Mode Controller Configuration

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path ds1|e1 shutdown

Syntax [no] path *pathChannel* { ds1 | e1 } *tributaryIdentifier* shutdown

Release Information Command introduced before JunosE Release 7.1.0.

Description Disables DS1 or E1 over channelized SONET and SDH interfaces. DS1 and E1 interfaces are enabled by default. The **no** version restarts a disabled interface.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *tributaryIdentifier*—Specifier for the tributary in the format *pathChannel* { ds1 | e1 } *pathPayload/tributaryGroup/tributaryNumber*
  - *pathPayload*—Payload number for the path; value is 1 for SONET and in the range 1–3 for SDH
  - *tributaryGroup*—Number, in the range 1–7, that identifies the group within the path
  - *tributaryNumber*—Number of the tributary within the tributary group; the value is in the range 1–4 if the tributary type is vt15 or tu11 and in the range 1–3 if the tributary type is tu12

Mode Controller Configuration

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path ds1|e1 snmp trap link-status

Syntax [no] path *pathChannel* { ds1 | e1 } *tributaryIdentifier* snmp trap link-status

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables SNMP link status processing for DS1 or E1 over channelized SONET and SDH interfaces. The **no** version disables SNMP link status processing.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *tributaryIdentifier*—Specifier for the tributary in the format *pathChannel* { ds1 | e1 } *pathPayload/tributaryGroup/tributaryNumber*
  - *pathPayload*—Payload number for the path; value is 1 for SONET and in the range 1–3 for SDH
  - *tributaryGroup*—Number, in the range 1–7, that identifies the group within the path
  - *tributaryNumber*—Number of the tributary within the tributary group; the value is in the range 1–4 if the tributary type is vt15 or tu11 and in the range 1–3 if the tributary type is tu12

Mode Controller Configuration

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path ds1 fdl

Syntax path *pathChannel* ds1 *tributaryIdentifier* fdl { ansi | att | all | none }

no path *pathChannel* ds1 *tributaryIdentifier* fdl [ansi | att | all]

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the FDL standard for a DS1 signal when DS1 is configured over a channelized SONET or SDH interface. The **no** version restores the default, none.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *tributaryIdentifier*—Specifier for the tributary in the format *pathChannel* { ds1 | e1 } *pathPayload/tributaryGroup/tributaryNumber*
  - *pathPayload*—Payload number for the path; value is 1 for SONET and in the range 1–3 for SDH
  - *tributaryGroup*—Number, in the range 1–7, that identifies the group within the path
  - *tributaryNumber*—Number of the tributary within the tributary group; the value is in the range 1–4 if the tributary type is vt15 or tu11 and in the range 1–3 if the tributary type is tu12
- ansi—Specifies ANSI T1.403 Standard for extended superframe FDL exchange support
- att—Specifies AT&T Technical Reference 54016 for extended superframe FDL exchange support
- all—Specifies both the AT&T and ANSI mode for extended superframe FDL exchange support
- none—Removes the current FDL mode settings

Mode Controller Configuration

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path ds1 fdl carrier

Syntax [no] path *pathChannel* ds1 *tributaryIdentifier* fdl carrier

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies that a DS1 signal is used in the carrier environment. This command applies to a DS1 over channelized SONET or SDH interface. The **no** version restores the default situation, in which an interface does not operate in the carrier environment.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *tributaryIdentifier*—Specifier for the tributary in the format *pathChannel* { ds1 | e1 } *pathPayload/tributaryGroup/tributaryNumber*
  - *pathPayload*—Payload number for the path; value is 1 for SONET and in the range 1–3 for SDH
  - *tributaryGroup*—Number, in the range 1–7, that identifies the group within the path
  - *tributaryNumber*—Number of the tributary within the tributary group; the value is in the range 1–4 if the tributary type is vt15 or tu11 and in the range 1–3 if the tributary type is tu12

Mode Controller Configuration

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path ds1 fdl string

Syntax

path *pathChannel* ds1 *tributaryIdentifier* fdl string { eic *eicValue* | fic *ficValue* | lic *licValue* | unit *unitValue* | pfi *pfiValue* | port *portValue* | generator *generatorValue* }

no path *pathChannel* ds1 *tributaryIdentifier* fdl string { eic | fic | lic | unit | pfi | port | generator }

Release Information

Command introduced before JunosE Release 7.1.0.

Description

Defines an FDL message for a DS1 signal, as defined in the ANSI T1.403 specification. This command applies to a DS1 over channelized SONET or SDH interface. Currently, FDL strings can only be configured locally. The **no** version restores the default value to the specified FDL message or to all FDL messages.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *tributaryIdentifier*—Specifier for the tributary in the format *pathChannel* { ds1 | e1 } *pathPayload/tributaryGroup/tributaryNumber*
  - *pathPayload*—Payload number for the path; value is 1 for SONET and in the range 1–3 for SDH
  - *tributaryGroup*—Number, in the range 1–7, that identifies the group within the path
  - *tributaryNumber*—Number of the tributary within the tributary group; the value is in the range 1–4 if the tributary type is vt15 or tu11 and in the range 1–3 if the tributary type is tu12
- *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; 1–10 characters; default value is the null value
- *unitValue*—Unit identification code; 1–6 characters; default value is the null value.
- *pfiValue*—Facility identification code to send in the FDL path message; 1–38 characters; default value is the null value
- *portValue*—Equipment port number to send in the FDL idle signal message; 1–38 characters; default value is the null value
- *generatorValue*—Generator number to send in the FDL test signal message; 1–38 characters; default value is the null value

Mode

Controller Configuration

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path ds1 fdl transmit

Syntax [no] path *pathChannel* ds1 *tributaryIdentifier* fdl transmit
{ path-id | idle-signal | test-signal }

no path *pathChannel* ds1 *tributaryIdentifier* fdl transmit

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the router to send the specified FDL message on a DS1 signal. This command applies to a DS1 over channelized SONET or SDH interface. The **no** version stops the router from sending the specified FDL message or all FDL messages.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *tributaryIdentifier*—Specifier for the tributary in the format *pathChannel* { ds1 | e1 } *pathPayload/tributaryGroup/tributaryNumber*
  - *pathPayload*—Payload number for the path; value is 1 for SONET and in the range 1–3 for SDH
  - *tributaryGroup*—Number, in the range 1–7, that identifies the group within the path
  - *tributaryNumber*—Number of the tributary within the tributary group; the value is in the range 1–4 if the tributary type is vt15 or tu11 and in the range 1–3 if the tributary type is tu12
- 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

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path ds1 remote-loopback

Syntax [no] path *pathChannel* ds1 *tributaryIdentifier* remote-loopback

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables acceptance of remote loopback requests at the DS1/E1 over SONET/SDH VT layer on channelized SONET and SDH interfaces. The **no** version restores the factory default value, which is to reject remote loopback requests.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *tributaryIdentifier*—Specifier for the tributary in the format *pathChannel* { ds1 | e1 } *pathPayload/tributaryGroup/tributaryNumber*
  - *pathPayload*—Payload number for the path; value is 1 for SONET and in the range 1–3 for SDH
  - *tributaryGroup*—Number, in the range 1–7, that identifies the group within the path
  - *tributaryNumber*—Number of the tributary within the tributary group; the value is in the range 1–4 if the tributary type is vt15 or tu11 and in the range 1–3 if the tributary type is tu12

Mode Controller Configuration

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path ds3

Syntax path *pathChannel* ds3 *ds3Channel* { [channelized] | unchannelized }

no path *pathChannel* ds3 *ds3Channel*

Release Information Command introduced before JunosE Release 7.1.0.

Description Creates and configures a DS3 signal. This command applies to a DS3 over channelized SONET interface. If you do not specify whether or not the path should be channelized, the router creates a channelized path by default. The **no** version deletes a path.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the path

Mode Controller Configuration

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path ds3 bert

Syntax path *pathChannel* ds3 *ds3Channel* bert pattern *pattern* interval *time*

no path *pathChannel* ds3 *ds3Channel* bert

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables bit error rate tests using the specified pattern for a DS3 signal. This command applies to a DS3 over channelized SONET interface. The **no** version stops the test that is running.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the DS3 channel
- *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 long
  - 2^11—Pseudorandom test pattern, 2047 bits long
  - 2^15—Pseudorandom test pattern, 32,767 bits long
  - 2^20—Pseudorandom test pattern, 1,048,575 bits long
  - 2^20-QRSS—Pseudorandom QRSS test pattern, 1,048,575 bits long
  - 2^23—Pseudorandom test pattern, 8,388,607 bits long
  - alt-0-1—Repetitive alternating test pattern of zeros and ones, 01010101...
- *time*—Duration of the test, in the range 1–1440 minutes

Mode Controller Configuration

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path ds3 clock source

Syntax path *pathChannel* ds3 *ds3Channel* clock source { line | internal { module | chassis } }

no path *pathChannel* ds3 *ds3Channel* clock source

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the transmit clock source for a DS3 signal. This command applies to a DS3 over channelized SONET interface. The **no** version restores the default value.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the path
- line—Interface transmits data from a clock recovered from the line's receive data stream
- internal—Interface transmits data using 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

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path ds3 description

Syntax path *pathChannel* ds3 *ds3Channel* description *name*

no path *pathChannel* ds3 *ds3Channel* description

Release Information Command introduced before JunosE Release 7.1.0.

Description Assigns a text description or an alias to a DS3 signal. This command applies to a DS3 over channelized SONET/SDH interface. Use the show controllers sonet command to display the text description. The **no** version removes the description or alias.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the path
- *name*—Text string or alias of up to 80 characters for the T3 over channelized SONET/SDH interface

Mode Controller Configuration

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path ds3 equipment loopback

Syntax path *pathChannel* ds3 *ds3Channel* equipment { customer | network } loopback

no path *pathChannel* ds3 *ds3Channel* equipment

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables or disables the router's ability to be placed in loopback by a remote device connected at the DS3 layer for a DS3 signal. This command applies to a DS3 over channelized SONET interface. The **no** version restores the default behavior, which disables the router's ability to be placed in loopback by a remote device. Using the **no** version has the same effect as issuing the command with the **network** keyword.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the path
- customer—Enables the router to start loopback testing when it receives an appropriate signal from the remote interface
- network—Disables the router's ability to start loopback testing when it receives an appropriate signal from the remote interface; this is the default behavior

Mode Controller Configuration

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path ds3 framing

Syntax path *pathChannel* ds3 *ds3Channel* framing *framingType*

no path *pathChannel* ds3 *ds3Channel* framing

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the framing format for a DS3 signal. This command applies to a DS3 over channelized SONET interface. The **no** version restores the default value.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the path
- *framingType*—Choose one of the following:
  - c-bit—Default; specifies C-bit parity framing
  - m23—Specifies M23 multiplexer framing

Mode Controller Configuration

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path ds3 loopback

Syntax path *pathChannel* ds3 *ds3Channel* loopback { local | network { line | payload } }

no path *pathChannel* ds3 *ds3Channel* loopback

[no] path *pathChannel* ds3 *ds3Channel* loopback remote

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures a loopback at the DS3 layer for a DS3 signal. This command applies to a DS3 over channelized SONET interface. The **no** version turns off the loopback.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the path
- local—Loops the data back toward the router; on supported line modules also sends an alarm indication signal (AIS) out toward the network.
- network { line | payload }—Specify the **line** keyword to loop the data toward the network before the data reaches the framer. Specify the **payload** keyword to loop the data toward the network after the framer has processed the data.
- remote—Sends a far end alarm code in the C-bit framing, as defined in ANSI T1.404, to notify the remote end to activate or (when you use the **no** version) deactivate the line loopback

Mode Controller Configuration

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path ds3 mdl carrier

Syntax [no] path *pathChannel* ds3 *ds3Channel* mdl carrier

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies that a DS3 signal is used in the carrier environment. This command applies to a DS3 over channelized SONET interface. The **no** version restores the default situation, in which an interface does not operate in the carrier environment.

Options
- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the path

Mode Controller Configuration

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path ds3 mdl string

Syntax path *pathChannel* ds3 *ds3Channel* mdl string { eic *eicValue* | fic *ficValue* | generator *genValue* | lic *licValue* | pfi *pfiCode* | port *portValue* | unit *unitValue* }

no path *pathChannel* ds3 *ds3Channel* mdl string { eic | fic | generator | lic | pfi | port | unit }

Release Information Command introduced before JunosE Release 7.1.0.

Description Allows you to configure an MDL message on a DS3 signal as defined in the ANSI T1.107a-1990 specification. This command applies to a DS3 over channelized SONET interface. The **no** version restores the default value to the specified MDL message or to all MDL messages.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the path
- *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
- *genValue*—Generator number to send in the MDL test signal message; 1–38 characters; default value is the null value
- *licValue*—Line identification code; 1–11 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
- *unitValue*—Unit identification code; 1–6 characters; default value is the null value

Mode Controller Configuration

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path ds3 mdl transmit

Syntax [no] path *pathChannel* ds3 *ds3Channel* mdl transmit
{ path-id | idle-signal | test-signal }

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables you to transmit an MDL message on a DS3 signal. This command applies to a DS3 over channelized SONET interface. The **no** version disables transmission of the specified message or all messages.

Options
- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the path
- 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

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path ds3 shutdown

Syntax [no] path *pathChannel* ds3 *ds3Channel* shutdown

Release Information Command introduced before JunosE Release 7.1.0.

Description Disables a DS3 signal. This command applies to a DS3 over channelized SONET interface. DS3 interfaces are enabled by default. The **no** version restarts a disabled interface.

Options
- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the path

Mode Controller Configuration

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path ds3 snmp trap link-status

Syntax [no] path *pathChannel* ds3 *ds3Channel* snmp trap link-status

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables SNMP link status processing for a DS3 signal. This command applies to a DS3 over channelized SONET interface. The **no** version disables SNMP link status processing on an interface.

Options
- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the path

Mode Controller Configuration

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path ds3 t1

Syntax [no] path *pathChannel* ds3 *ds3Channel* t1 *t1Channel*

Release Information Command introduced before JunosE Release 7.1.0.

Description Creates and configures a T1 channel on a DS3 signal. This command applies to a T1 channel on a DS3 over channelized SONET interface. The **no** version deletes a path.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the DS3 channel
- *t1Channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27

Mode Controller Configuration

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path ds3 t1 bert

Syntax

path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* bert
pattern *pattern* interval *time* [unframed]

no path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* bert

Release Information

Command introduced before JunosE Release 7.1.0.

Description

Enables bit error rate tests using the specified pattern for a T1 channel on a DS3 signal. This command applies to a T1 channel on a DS3 over channelized SONET interface. The **no** version stops the test that is running.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the DS3 channel
- *t1Channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- *pattern*—One of the following test patterns:
  - 2^11—Pseudorandom test pattern, 2047 bits long
  - 2^15—Pseudorandom test pattern, 32,767 bits long
  - 2^20-O153—Pseudorandom test pattern, 1,048,575 bits long
- *time*—Duration of the test in the range 1–1440 minutes
- unframed—Test bit pattern occupies all bits on the link, overwriting the framing bits. If you do not specify this keyword, the test bit pattern occupies only T1/E1 payload bits.

Mode

Controller Configuration

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path ds3 t1 clock source

Syntax path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* clock source { line | internal { module | chassis } }

no path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* clock source

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the transmit clock source for a T1 channel on a DS3 signal. This command applies to a T1 channel on a DS3 over channelized SONET interface. The **no** version restores the default value, line.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the DS3 channel
- *t1Channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- line—Interface transmits data from a clock recovered from the line's receive data stream
- internal—Interface transmits data using 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

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path ds3 t1 description

Syntax [no] path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* [*/subchannel*] description *name*

Release Information Command introduced before JunosE Release 7.1.0.

Description Assigns a text description or an alias to a T1 channel group or subchannel on a DS3 signal. This command applies to a T1 channel group or subchannel on a DS3 over channelized SONET/SDH interface. Use the **show controllers sonet** command to display the text description. The **no** version removes the description or alias.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the DS3 channel
- *t1Channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- *subchannel*—Fractional T1 interface in the range 1–24
- *name*—Text string or alias of up to 80 characters for the T1 channel group or subchannel on a T3 over channelized SONET/SDH interface

Mode Controller Configuration

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path ds3 t1 fdl

Syntax path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* fdl { ansi | att | all | none }

no path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* fdl [ansi | att | all]

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the facilities data link (FDL) standard for a T1 channel on a DS3 signal. This command applies to a T1 channel on a DS3 over channelized SONET interface. The **no** version restores the default, none.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the DS3 channel
- *t1Channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- ansi—Specifies ANSI T1.403 Standard for extended superframe FDL exchange support
- att—Specifies AT&T Technical Reference 54016 for extended superframe FDL exchange support
- all—Specifies both the AT&T and ANSI mode for extended superframe FDL exchange support
- none—Removes the current FDL mode settings

Mode Controller Configuration

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path ds3 t1 fdl carrier

Syntax [no] path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* fdl carrier

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies that a T1 channel on a DS3 signal is used in the carrier environment. This command applies to a T1 channel on a DS3 over channelized SONET interface. The **no** version restores the default situation, in which an interface does not operate in the carrier environment.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the DS3 channel
- *t1Channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27

Mode Controller Configuration

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path ds3 t1 fdl string

Syntax path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* fdl string { eic *eicValue* | fic *ficValue* | lic *licValue* | unit *unitValue* | pfi *pfiValue* | port *portValue* | generator *generatorValue* }

no path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* fdl string { eic | fic | lic | unit | pfi | port | generator }

Release Information Command introduced before JunosE Release 7.1.0.

Description Defines an FDL message for a T1 channel on a DS3 signal, as defined in the ANSI T1.403 specification. This command applies to a T1 channel on a DS3 over channelized SONET interface. Currently, FDL strings can only be configured locally. The **no** version restores the default value to the specified FDL message or to all FDL messages.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the DS3 channel
- *t1Channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- *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; 1–10 characters; default value is the null value
- *unitValue*—Unit identification code; 1–6 characters; default value is the null value
- *pfiValue*—Facility identification code to send in the FDL path message; 1–38 characters; default value is the null value
- *portValue*—Equipment port number to send in the FDL idle signal message; 1–38 characters; default value is the null value
- *generatorValue*—Generator number to send in the FDL test signal message; 1–38 characters; default value is the null value

Mode Controller Configuration

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path ds3 t1 fdl transmit

Syntax [no] path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* fdl transmit
{ path-id | idle-signal | test-signal }

no path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* fdl transmit

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the router to send the specified type of FDL message for a T1 channel on a DS3 signal. This command applies to a T1 channel on a DS3 over channelized SONET interface. The **no** version stops the router from sending the specified type of FDL message or all FDL messages.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the DS3 channel
- *t1Channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- 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

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path ds3 t1 framing

Syntax path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* framing *framingType*

no path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* framing

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the framing format for a T1 channel on a DS3 signal. This command applies to a T1 channel on a DS3 over channelized SONET interface. The **no** version restores the default value.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the DS3 channel
- *t1Channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- *framingType*—One of the following types:
  - esf—Default; specifies extended superframe
  - sf—Specifies superframe

Mode Controller Configuration

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path ds3 t1 loopback

Syntax

path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* loopback
{ local | network { line | payload } }

no path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* loopback

path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* loopback remote
{ line fdl { ansi | bellcore } | payload [fdl] [ansi] }

no path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* loopback remote

Release Information

Command introduced before JunosE Release 7.1.0.

Description

Configures a loopback for a T1 channel on a DS3 signal. This command applies to a T1 channel on a DS3 over channelized SONET interface. The **no** version turns off the loopback.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the DS3 channel
- *t1Channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- local—Loops the router output data back toward the router at the T1 framer; on supported line modules also sends an alarm indication signal (AIS) out toward the network.
- network { line | payload }—Specify the **line** keyword to loop the data back toward the network before the T1 framer and automatically set a local loopback at the HDLC controllers. Specify the **payload** keyword to loop the payload data back toward the network at the T1 framer and automatically set a local loopback at the HDLC controllers.
- remote line fdl ansi—Sends a repeating 16-bit ESF data link code word (00001110 11111111) to the remote end requesting that it enter into a network line loopback. Specify the **ansi** keyword to enable the remote line FDL ANSI bit loopback on the T1 channel, according to the ANSI T1.403 specification.
- remote line fdl bellcore—Sends a repeating 16-bit ESF data link code word (00010010 11111111) to the remote end requesting that it enter into a network line loopback. Specify the **bellcore** keyword to enable the remote line FDL Bellcore bit loopback on the T1 channel, according to the Bellcore TR-TSY-000312 specification.
- remote payload [fdl] [ansi]—Sends a repeating 16-bit ESF data link code word (00010100 11111111) to the remote end requesting that it enter into a network payload loopback. Enables the remote payload FDL ANSI bit loopback on the T1 channel. You can optionally specify **fdl** and **ansi**, but it is not necessary.

Mode

Controller Configuration

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path ds3 t1 remote-loopback

Syntax [no] path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* remote-loopback

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables acceptance of remote loopback requests by a T1 channel on a DS3 signal. This command applies to a T1 channel on a DS3 over channelized SONET interface. The **no** version restores the default value, which is to reject remote loopback requests.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the DS3 channel
- *t1Channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27

Mode Controller Configuration

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path ds3 t1 shutdown

Syntax [no] path *pathChannel* ds3 *ds3Channel* t1 *t1Channel*[*/subchanne*l] shutdown

Release Information Command introduced before JunosE Release 7.1.0.

Description Disables a T1 channel or subchannel on a DS3 signal. This command applies to a T1 channel or subchannel on a DS3 over channelized SONET interface. T1 channels are enabled by default. The **no** version restarts a disabled interface.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the DS3 channel
- *t1Channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- *subchannel*—Fractional T1 interface in the range 1–24

Mode Controller Configuration

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path ds3 t1 snmp trap link-status

Syntax [no] path *pathChannel* ds3 *ds3Channel* t1 *t1Channel* [*/subchannel*]
snmp trap link-status

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables SNMP link status processing for a T1 channel group or subchannel on a DS3 signal. This command applies to a T1 channel or subchannel on a DS3 over channelized SONET interface. The **no** version disables SNMP link status processing for a T1 channel.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the DS3 channel
- *t1Channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- *subchannel*—Fractional T1 interface, in the range 1–24

Mode Controller Configuration

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path ds3 t1 timeslots

Syntax path *pathChannel* ds3 *ds3Channel* t1 *t1Channel/subchannel* timeslots *range* [speed { 56 | 64 }]

no path *pathChannel* ds3 *ds3Channel* t1 *t1Channel/subchannel*

Release Information Command introduced before JunosE Release 7.1.0.

Description Assigns a range of DS0 timeslots to a subchannel as a single data stream for a T1 channel on a DS3 signal. This command applies to a T1 channel on a DS3 over channelized SONET interface. You can optionally specify a line speed that applies to all DS0 timeslots assigned to a subchannel. The **no** version deletes the fractional T1 circuit.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *ds3Channel*—Number, in the range 1–3, that identifies the DS3 channel
- *t1Channel*—Number, in the range 1–28, that identifies the T1 channel
- *subchannel*—Fractional T1 interface, in the range 1–24
- *range*—Timeslots assigned to the T1 channel in the range 1–24; a dash represents a range of timeslots, and a comma separates timeslots. For example, 1-10, 15-18 assigns timeslots 1–10 and 15–18.
- speed—Specifies the data rate for the T1 channel, either 56 Kbps or 64 Kbps; default value is 64 Kbps

Mode Controller Configuration

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path e1 unframed

Syntax [no] path *pathChannel* e1 *tributaryIdentifier* unframed

Release Information Command introduced before JunosE Release 7.1.0.

Description Creates and configures an unframed E1 signal on a channelized SONET or SDH interface. The **no** version deletes an unframed E1 interface from the path.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path
- *tributaryIdentifier*—Specifier for the tributary in the format *pathChannel* { ds1 | e1 } *pathPayload/tributaryGroup/tributaryNumber*
  - *pathPayload*—Payload number for the path; value is 1 for SONET and in the range 1–3 for SDH
  - *tributaryGroup*—Number, in the range 1–7, that identifies the group within the path
  - *tributaryNumber*—Number of the tributary within the tributary group; the value is in the range 1–4 if the tributary type is vt15 or tu11 and in the range 1–3 if the tributary type is tu12

Mode Controller Configuration

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path overhead c2

Syntax For channelized OCx/STMx interfaces:

[no] path *pathChannel* overhead c2 *byteValue*

For unchannelized OCx/STMx interfaces:

[no] path overhead c2 *byteValue*

Release Information Command introduced before JunosE Release 7.1.0.

Description Overrides the default value of the path signal label (C2) byte for SONET and SDH interfaces. The **no** version restores the default setting, which depends on the types of interface layers configured above the SONET/SDH interface.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path on a channelized interface
- *byteValue*—Value for C2 byte; integer, in the range 0–255

Mode Controller Configuration

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path overhead j1

Syntax For channelized OCx/STMx interfaces:

[no] path *pathChannel* overhead j1 { msg | exp-msg } [*message*]

For unchannelized OCx/STMx interfaces:

[no] path overhead j1 { msg | exp-msg } [*message*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies trace messages to check for connectivity between the router and the SONET/SDH device at the other end of the line. The **no** version restores the default situation, in which all characters of the trace message are zeros.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path on a channelized interface
- msg—Specifies that the message is one that the router sends
- exp-msg—Specifies that the message is one that the router expects to receive
- *message*—Text of the message; the maximum is 15 characters for SDH mode and 62 characters for SONET mode

Mode Controller Configuration

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path shutdown

Syntax For channelized OCx/STMx interfaces:

[no] path *pathChannel* shutdown

For unchannelized OCx/STMx interfaces:

[no] path shutdown

Release Information Command introduced before JunosE Release 7.1.0.

Description Disables a path on channelized and unchannelized SONET/SDH interfaces. On channelized interfaces, you must specify the path channel number. By default, paths are enabled. The **no** version restarts the path.

Options
- *pathChannel*—Number, in the range 1–2147483648, that identifies the path on a channelized interface

Mode Controller Configuration

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path snmp trap link-status

Syntax For channelized OCx/STMx interfaces:

[no] path *pathChannel* snmp trap link-status

For unchannelized OCx/STMx interfaces:

[no] path snmp trap link-status

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables SNMP link-status processing for the path layer of SONET and SDH interfaces. The **no** version disables SNMP link-status processing.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path on a channelized interface

Mode Controller Configuration

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path trigger alarm prdi

Syntax For channelized OCx/STMx interfaces:

[no] path *pathChannel* trigger alarm prdi

For unchannelized OCx/STMx interfaces:

[no] path trigger alarm prdi

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies that the router uses remote defect indications (RDIs) at the path layer to determine the operational state of a path. The **no** version restores the default setting, in which loss of pointer and alarm indication signal (AIS) defects at the path layer determine the operational state of a path.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path on a channelized interface

Mode Controller Configuration

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path trigger delay

Syntax For channelized OCx/STMx interfaces:

path *pathChannel* trigger delay msec *delayTime*

no path *pathChannel* trigger delay

For unchannelized OCx/STMx interfaces:

path trigger delay msec *delayTime*

no path trigger delay

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the time duration that the router uses to determine when a SONET/SDH defect at the path layer becomes an alarm. The **no** version restores the default setting, 2500 milliseconds.

Options

- *pathChannel*—Number, in the range 1–2147483648, that identifies the path on a channelized interface
- *delayTime*—Time, in the range 0–2500 milliseconds

Mode Controller Configuration

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peak-burst

Syntax

peak-burst *size* { millisecond *milliseconds* }

no peak-burst

Release Information

Command introduced before JunosE Release 7.1.0.
milliseconds variable added in JunosE Release 8.1.0.

Description

Sets the peak burst for a rate-limit profile. The **no** version restores the default value, 100 ms; if 100ms is less than 8K, then 8K (8192).

Options

- *size*—Size in bytes in the range 1–4294967295
- *milliseconds*—Milliseconds in the range 1–10000

Mode

Rate Limit Profile Configuration

Related Documentation

- Creating a Two-Rate Rate-Limit Profile

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peak-rate

Syntax

peak-rate { *rate* | *parameterName* percentage *percentValue* }

no peak-rate

Release Information

Command introduced before JunosE Release 7.1.0.
parameterName and *percentValue* variables added in JunosE Release 8.1.0.

Description

Sets the peak rate for a rate-limit profile. The **no** version restores the default value, 0.

Options

- *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

Related Documentation

- Creating a Two-Rate Rate-Limit Profile

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peer ip identity

Syntax peer ip identity
{ address *ipAddress* | range *ipRangeLow ipRangeHigh* | subnet *netAddress netMask* }

no peer ip identity

Release Information Command introduced in JunosE Release 7.3.0.

Description Overrides the peer 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, the internal IP address allocated for the subscriber.

Options

- *ipAddress*—IP address used as the peer identity for IPsec security association negotiations
- *ipRangeLow*—Low end of a range used as the peer identity for IPsec security association negotiations
- *ipRangeHigh*—High end of a range used as the peer identity for IPsec security association negotiations
- *netAddress*—IP network address used as the peer identity for IPsec security association negotiations
- *netMask*—IP network mask used as the peer identity for IPsec security association negotiations

Mode IPsec Tunnel Profile Configuration

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pfs group

Syntax pfs group { 1 | 2 | 5 }

no pfs group

Release Information Command introduced before JunosE Release 7.1.0.
IPsec Tunnel Profile mode added in JunosE Release 7.3.0.

Description Configures perfect forward secrecy for connections created with this IPsec transport or tunnel profile by assigning a Diffie-Hellman prime modulus group. The **no** version removes PFS from the profile.

Options
- 1—768-bit Diffie-Hellman prime modulus group
- 2—1024-bit Diffie-Hellman prime modulus group
- 5—1536-bit Diffie-Hellman prime modulus group

Mode IPsec Transport Profile Configuration, IPsec Tunnel Profile Configuration

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pim disable

Syntax [no] pim disable

Release Information Command introduced before JunosE Release 7.1.0.

Description Disables PIM on a virtual router. The **no** version reenables PIM on a virtual router.

Mode Router Configuration

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ping

Syntax

ping [vrf *vrfName*] [ip] *destination* [*packetCount*] [timeout *timeOutVal*]
[transmit-delay *delayVal*] [ttl *ttlValue*] [data-size *dataSize*]
[data-pattern { ones | zeros | random | hex-data *hexData* }]
[source { interface *interfaceType interfaceSpecifier* | address *sourceAddr* }]
[sweep-sizes *sweepMin sweepMax* [sweep-interval *sweepInt*]]
[extended [tos *tosVal*] [set-dont-fragment-bit] [set-router-alert]
[{ loose-source-route | strict-source-route } [*srtAddrs*]*]
[record-route *numRoutes*] [timestamp *numTstamps*]
[interface *interfaceType Interfacespecifier*]]

ping ipv6 [vrf *vrfName*] *destination* [*packetCount*] [timeout *timeOutVal*]
[transmit-delay *delayVal*] [hop-limit *hopLimit*] [data-size *dataSize*]
[data-pattern { ones | zeros | random | hex-data *hexData* }]
[source { interface *interfaceType interfaceSpecifier* | address *sourceAddr* }]
[sweep-sizes *sweepMin sweepMax* [sweep-interval *sweepInt*]]
[extended [dscp *trafficClass*] [flow-label *flowLabel*]]

Release Information

Command introduced before JunosE Release 7.1.0.
vrf keyword and *vrfName* variable added to IPv6 version in JunosE Release 7.2.0.

Description

Sends an ICMP echo request packet to the IP or IPv6 address that you specify. There is no **no** version.

Options

- *vrfName*—Name of the VRF context
- ip—Specifies optional keyword for compatibility with non–E Series implementations
- ipv6—Specifies the destination address as IPv6 format
- *destination*—IP address, IPv6 address, or domain name of the host to ping
- *packetCount*—Number of packets to send to the destination IP address, in the range 0–4294967295; default value is 5; 0 means ping forever
- *timeOutVal*—Number of seconds, in the range 1–20, to wait for an ICMP echo reply packet before the connection attempt times out
- *delayVal*—Number of milliseconds, in the range 1–50, between transmission of each ICMP request; default value is 10 ms
- *hopLimit*—Specifies a hop limit, in the range 1–255; default value is 255
- *ttlValue*—Specifies a hop count by setting the time-to-live field in the IP header in the range 1–255; default value is 32
- *dataSize*—Number of bytes comprising the IP packet and reflected in the IP header, in the range 0–64000; default value is 100 bytes
- data-pattern—Type of bits contained in the packet. You can set the bits to all ones, all zeros, a random mixture of ones and zeros, or a specific hexadecimal data pattern that can range from 0x0 – 0xFFFFFFFF. The default data pattern is all zeros.

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- source interface—Specifies an interface as the source of the packets
  - *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- source address—Specifies an IP address as the source of the packets
  - *sourceAddr*—IP address or domain name used as the source address
- sweep-sizes—Configures payload sizes, enabling you to vary the sizes of the echo packets being sent. This capability is useful for determining the minimum sizes of the MTUs configured on the nodes along the path to the destination address. This reduces packet fragmentation which contributes to performance problems. The default is not to sweep (all packets are the same size).
  - *sweepMin*—Minimum payload size in the range 0–64000
  - *sweepMax*—Maximum payload size in the range 0–64000
  - *sweepInt*—Number of bytes to add to the size of the packet; the change in the size of subsequent ping packets while sweeping across a range of sizes. For example, you can configure the sweep interval to sweep across the range of packets from 100 bytes to 1000 bytes in increments of *sweepInt*. By default, send 100, 101, 102, 103...1000. If *sweepInt* is 5, send 100, 105, 110, 115...1000). When " sweeping," the default interval is 1.
- extended—Enables you to configure extended header attributes
  - *tosVal*—Specifies the value set in the ToS byte in the range 0–255 to support QoS offerings
  - set-dont-fragment-bit—Sets the don't-fragment bit in the IP header to prevent IP from fragmenting the packet if it is too long for the MTU of a link; if the nonfragmented packet cannot be delivered, it is discarded
  - set-router-alert—Sets the router alert bit in the IP header to indicate that all routers should examine this packet more closely to determine whether further processing is necessary
  - loose-source-route—Specifies a set of hops through which the packet must traverse; the hops do not have to be adjacent
  - strict-source-route—Specifies every hop through which the packet must traverse and generates an ICMP error if the exact path cannot be followed
  - *srtAddrs*—IP addresses or domain name of the intermediate hops on the way to the destination to be used in the loose-source or strict-source route
  - *—Indicates that one or more parameters can be repeated multiple times in a list in the command line
  - *numRoutes*—Specifies how many routes are to be recorded as the packet travels, in the range 1–9
  - *numTstamps*—Specifies how many timestamps from routers are to be recorded as the packet travels, in the range 1–9

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- *interfaceType*—Interface type of a destination address on the router that is connected for external loopback by means of a cable or plug that loops Tx to Rx. The command succeeds only if the specified interface is connected for external loopback and the encapsulation type is ATM, Frame Relay, HDLC, or PPP. The command does not work for Ethernet or VLAN encapsulations. See Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface of a destination address on the router that is connected for external loopback by means of a cable or plug that loops Tx to Rx. The command succeeds only if the specified interface is connected for external loopback and the encapsulation type is ATM, Frame Relay, HDLC, or PPP. The command does not work for Ethernet or VLAN encapsulations. Format varies according to interface type; see Interface Types and Specifiers on page 5
- *trafficClass*—Specifies the traffic class value to match in the Traffic Class field of each IPv6 packet header, in the range 1 to 255
- *flowLabel*—Specifies the flow label value to match in the Flow Label field of each IPv6 packet header, in the range 1 to 1048576

Mode Privileged Exec, User Exec

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ping atm interface atm

Syntax ping atm interface atm *interfaceSpecifier vpi vci*
[end-loopback | seg-loopback [*destination*]] [count *cellCount*]
[timeout *#OfSeconds*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets up the ATM interface or circuit to send loopback cells. There is no **no** version.

Options

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *vpi*—Virtual path identifier
- *vci*—Virtual circuit identifier; by default F5 end-to-end loopback OAM cells are used for the ping operation
  - To send F4 segment loopback cells, set the VCI to 3.
  - To send F5 end-to-end loopback cells, set the VCI to 4.
- end-loopback—Sends the ping to the connection endpoint
- seg-loopback—Sends the ping to the first segment endpoint
- *destination*—Value of the location ID included the loopback cell. The location ID is a 16-octet field, and the destination portion is 4 octets. You can set the destination to a specific location ID or to 0s (zeros) or 1s (ones). If the destination is set to:
  - 0s—Loopback location ID in the loopback cell is initialized to all 0s, and each segment endpoint in the network responds to the ping
  - 1s—Loopback location ID in the loopback cell is initialized to all 1s, and only the connection endpoint responds to the ping

  The default value is 0xFFFFFFFF, which causes the loopback location ID in the loopback cell to be initialized to all 1s.
- *cellCount*—Number of OAM echo cells to send to the destination, in the range 1–32; default value is 5
- timeout—Amount of time to wait for a response to the sent OAM cell. If no response is received when this time expires, the router sends the next cell. This process is repeated for the number of cells specified in the *cellCount* parameter.
- *#OfSeconds*—Number of seconds in the timeout period, in the range 1–5; default value is 5

Mode Privileged Exec

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ping mpls ip

Syntax ping mpls ip [vrf *vrfName*] { *targetIpAddress targetIpv4Mask* | *targetIpv6Prefix* }
[destination *startIpAddress endIpAddress increment*]
[source address *sourceAddr*] [[repeat] *packetCount*]
[ttl *ttlValue*] [timeout *timeOutVal*]
[data-size *dataSize* | sweep-sizes *sweepMin sweepMax sweepInt*]
[pad { ones | zeros | random | hex-data *hexData* }]
[reply mode { ipv4-udp | ipv4-udp-with-router-alert }]
[reply pad-tlv] [reply dscp *trafficClass*]
[interval *txdelayVal*] [exp-bits *bitValue*] [detail]

Release Information Command introduced in JunosE Release 8.0.0.

Description Sends an MPLS echo request packet to the specified IP or IPv6 address or, alternatively, sends MPLS echo packets to the egress node in a point-to-multipoint LSP. There is no **no** version.

The MPLS echo request packets and echo reply packets created by this command use the LDP IPv4 LSP sub-TLV described in RFC 4379—Detecting Multi-Protocol Label Switched (MPLS) Data Plane Failures (February 2006).

The MPLS echo request packets and echo reply packets created by this command to detect connectivity to egress nodes in point-to-multipoint LSPs use the P2MP Responder Identifier TLV described in the IETF draft, Detecting Data Plane Failures in Point-to-Multipoint Multiprotocol Label Switching (MPLS) - Extensions to LSP Ping—draft-ietf-mpls-p2mp-lsp-ping-08.txt (February 2010 expiration).

Options

- *vrfName*—Name of the VRF context; when you specify a VRF name, the LSP to the specified prefix must originate from the VRF because the ping is generated from the specified VRF
- *targetIpAddress*—IP address of the ping target
- *targetIpv4Mask*—Network mask for target IP address
- *targetIpv6Prefix*—IPv6 address of the ping target
- *startIpAddress*—First IP address within the 127.0.0.0/8 destination range
- *endIpAddress*—Last IP address within the 127.0.0.0/8 destination range
- *increment*—Number in the range 0–255 that specifies the increment between addresses in the destination address range
- *sourceAddr*—IP address used as the packet source address
- repeat—Specifies that multiple ping packets are sent
- *packetCount*—Number of packets to send to the destination address, in the range 0–4294967295; default value is 5; 0 means ping forever
- *ttlValue*—Hop count specified by setting the time-to-live field in the header, in the range 1–255; default value is 32

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- *timeOutVal*—Number of seconds, in the range 1–32 to wait for an MPLS echo reply packet before the connection attempt times out
- *dataSize*—Number of bytes comprising the MPLS packet, including the header, in the range 0–64000; default value is 100 bytes
- sweep-sizes—Configures payload sizes, enabling you to vary the sizes of the echo packets being sent. This capability is useful for determining the minimum sizes of the MTUs configured on the nodes along the path to the destination address. This reduces packet fragmentation which contributes to performance problems. The default is not to sweep; all packets are the same size.
  - *sweepMin*—Minimum payload size in the range 0–64000
  - *sweepMax*—Maximum payload size in the range 0–64000
  - *sweepInt*—Number of bytes to add to the size of the packet; the change in the size of subsequent ping packets while sweeping across a range of sizes. For example, you can configure the sweep interval to sweep across the range of packets from 0 bytes to 10,000 bytes in increments of *sweepInt*. By default, send 100, 101, 102, 103...1000. If *sweepInt* is 5, send 100, 105, 110, 115...1000). When " sweeping," the default interval is 1.
- pad—Specifies the type of bits contained in the pad TLV. You can set the bits to all ones, all zeros, a random mixture of ones and zeros, or a specific hexadecimal data pattern, in the range from 0x0–0xFFFFFFFF. The default data pattern is all zeros.
- reply mode—Specifies the reply mode for the echo request packet
  - ipv4-udp—Specifies that the echo request packet is an IPv4 UDP packet
  - ipv4-udp-with-router-alert—Specifies that the echo request packet is an IPv4 UDP packet with the router alert bit set in the header so all routers examine this packet more closely to determine whether further processing is necessary
- reply pad-tlv—Requests sender of an echo reply to send a pad TLV
- *trafficClass*—Number in the range 0–255 that represents the value of the traffic class that the sender of an echo reply is requested to set
- *txDelayVal*—Number of milliseconds in the range 1–50 between transmission of each echo request; default value is 10 ms
- *bitValue*—Value of the EXP bits in the range 0–7 included in the MPLS echo request packet
- detail—Displays detailed information about MPLS echo request sent and echo replies received

Mode Privileged Exec, User Exec

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ping mpls l2transport

Syntax

ping mpls l2transport [vrf *vrfName*]
{ *interfaceType interfaceSpecifier* }
[destination *startIpAddress endIpAddress increment*]
[source address *sourceAddr*] [[repeat] *packetCount*]
[ttl *ttlValue*] [timeout *timeOutVal*]
[data-size *dataSize* | sweep-sizes *sweepMin sweepMax sweepInt*]
[pad { ones | zeros | random | hex-data *hexData* }]
[reply mode { ipv4-udp | ipv4-udp-with-router-alert }]
[reply pad-tlv] [reply dscp *trafficClass*]
[interval *txdelayVal*] [exp-bits *bitValue*] [bottom-label-ttl *bottomLabelTtl*]
[detail]

Release Information

Command introduced in JunosE Release 8.0.0.

Description

Sends an MPLS echo request packet to the specified layer 2 cross-connect virtual (Martini) circuit or, alternatively, sends MPLS echo packets to the egress node in a point-to-multipoint LSP. There is no **no** version.

The echo request packet generated by this command contains the FEC 128 Pseudowire (Current) sub-TLV described in RFC 4379—Detecting Multi-Protocol Label Switched (MPLS) Data Plane Failures (February 2006).

NOTE: This command is not supported for local cross-connects because local cross-connects do not employ an LSP.

The MPLS echo request packets and echo reply packets created by this command to detect connectivity to egress nodes in point-to-multipoint LSPs use the P2MP Responder Identifier TLV described in the IETF draft, Detecting Data Plane Failures in Point-to-Multipoint Multiprotocol Label Switching (MPLS) - Extensions to LSP Ping—draft-ietf-mpls-p2mp-lsp-ping-08.txt (February 2010 expiration).

Options

- *vrfName*—Name of the VRF context; when you specify a VRF name, the ping is generated from the specified VRF—for that reason the MPLS shim interface must exist in the VRF
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *startIpAddress*—First IP address within the 127.0.0.0/8 destination range
- *endIpAddress*—Last IP address within the 127.0.0.0/8 destination range
- *increment*—Number in the range 0–255 that specifies the increment between addresses in the destination address range
- *sourceAddr*—IP address used as the packet source address

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- repeat—Specifies that multiple ping packets are sent
- *packetCount*—Number of packets to send to the destination address, in the range 0–4294967295; default value is 5; 0 means ping forever
- *ttlValue*—Hop count specified by setting the time-to-live field in the header, in the range 1–255; default value is 32; however, by default, the TTL on the inner (stacked) label is set to 1 while transmitting the echo request packet, which causes the packet to be exceptioned to the SRP module when the stacked label is exposed
- *timeOutVal*—Number of seconds in the range 1–32 to wait for an MPLS echo reply packet before the connection attempt times out
- *dataSize*—Number of bytes comprising the MPLS packet, including the header, in the range 0–64000; default value is 100 bytes
- sweep-sizes—Configures payload sizes, enabling you to vary the sizes of the echo packets being sent. This capability is useful for determining the minimum sizes of the MTUs configured on the nodes along the path to the destination address. This reduces packet fragmentation which contributes to performance problems. The default is not to sweep; all packets are the same size.
  - *sweepMin*—Minimum payload size in the range 0–64000
  - *sweepMax*—Maximum payload size in the range 0–64000
  - *sweepInt*—Number of bytes to add to the size of the packet; the change in the size of subsequent ping packets while sweeping across a range of sizes. For example, you can configure the sweep interval to sweep across the range of packets from 0 bytes to 10,000 bytes in increments of *sweepInt*. By default, send 100, 101, 102, 103...1000. If *sweepInt* is 5, send 100, 105, 110, 115...1000). When " sweeping," the default interval is 1.
- pad—Specifies the type of bits contained in the pad TLV. You can set the bits to all ones, all zeros, a random mixture of ones and zeros, or a specific hexadecimal data pattern, in the range from 0x0–0xFFFFFFFF. The default data pattern is all zeros.
- reply mode—Specifies the reply mode for the echo request packet
  - ipv4-udp—Specifies that the echo request packet is an IPv4 UDP packet
  - ipv4-udp-with-router-alert—Specifies that the echo request packet is an IPv4 UDP packet with the router alert bit set in the header so all routers examine this packet more closely to determine whether further processing is necessary
- reply pad-tlv—Requests sender of an echo reply to send a pad TLV
- *trafficClass*—Number in the range 0–255 that represents the value of the traffic class that the sender of an echo reply is requested to set
- *txDelayVal*—Number of milliseconds in the range 1–50 between transmission of each echo request; default value is 10 ms
- *bitValue*—Value of the EXP bits in the range 0–7 included in the MPLS echo request packet

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- *bottomLabelTtl*—Time-to-live value of the bottom label in the stack
- detail—Displays detailed information about MPLS echo request sent and echo replies received

Mode Privileged Exec, User Exec

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ping mpls l3vpn

Syntax

ping mpls l3vpn [vrf *vrfName*]
{ *targetAddress targetMask* | *targetIpv6Prefix* }
[destination *startIpAddress endIpAddress increment*]
[source address *sourceAddr*] [[repeat] *packetCount*]
[ttl *ttlValue*] [timeout *timeOutVal*]
[data-size *dataSize* | sweep-sizes *sweepMin sweepMax sweepInt*]
[pad { ones | zeros | random | hex-data *hexData* }]
[reply mode { ipv4-udp | ipv4-udp-with-router-alert }]
[reply pad-tlv] [reply dscp *trafficClass*]
[interval *txdelayVal*] [exp-bits *bitValue*] [bottom-label-ttl *bottomLabelTtl*]
[detail]

Release Information

Command introduced in JunosE Release 8.0.0.

Description

Sends an MPLS echo request packet to the specified L3VPN IP or IPv6 prefix, or alternatively, sends MPLS echo packets to the egress node in a point-to-multipoint LSP. There is no **no** version.

The echo request packet generated by this command contains either the VPN IPv4 sub-TLV or VPN IPv6 sub-TLV described in RFC 4379—Detecting Multi-Protocol Label Switched (MPLS) Data Plane Failures (February 2006). Which sub-TLV is included depends on whether the ping is intended for an IPv4 prefix or an IPv6 prefix.

You can use this command to send a request to a VPNv4 prefix in the specified VRF. If you do not specify a VRF, then you must issue the command from the VRF context. In any case, the ping originates from the parent router.

The MPLS echo request packets and echo reply packets created by this command to detect connectivity to egress nodes in point-to-multipoint LSPs use the P2MP Responder Identifier TLV described in the IETF draft, Detecting Data Plane Failures in Point-to-Multipoint Multiprotocol Label Switching (MPLS) - Extensions to LSP Ping—draft-ietf-mpls-p2mp-lsp-ping-08.txt (February 2010 expiration).

Options

- *vrfName*—Name of the VRF context
- *targetAddress*—IP address of the target VPN network
- *targetMask*—Netmask for the target address
- *targetIpv6Prefix*—IPv6 prefix for the target VPN network
- *startIpAddress*—First IP address within the 127.0.0.0/8 destination range
- *endIpAddress*—Last IP address within the 127.0.0.0/8 destination range
- *increment*—Number in the range 0–255 that specifies the increment between addresses in the destination address range
- *sourceAddr*—IP address used as the packet source address
- repeat—Specifies that multiple ping packets are sent

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- *packetCount*—Number of packets to send to the destination address, in the range 0–4294967295; default value is 5; 0 means ping forever
- *ttlValue*—Hop count specified by setting the time-to-live field in the header, in the range 1–255; default value is 32
- *timeOutVal*—Number of seconds in the range 1–32 to wait for an MPLS echo reply packet before the connection attempt times out
- *dataSize*—Number of bytes comprising the MPLS packet, including the header, in the range 0–64000; default value is 100 bytes
- sweep-sizes—Configures payload sizes, enabling you to vary the sizes of the echo packets being sent. This capability is useful for determining the minimum sizes of the MTUs configured on the nodes along the path to the destination address. This reduces packet fragmentation which contributes to performance problems. The default is not to sweep; all packets are the same size.
  - *sweepMin*—Minimum payload size in the range 0–64000
  - *sweepMax*—Maximum payload size in the range 0–64000
  - *sweepInt*—Number of bytes to add to the size of the packet; the change in the size of subsequent ping packets while sweeping across a range of sizes. For example, you can configure the sweep interval to sweep across the range of packets from 0 bytes to 10,000 bytes in increments of *sweepInt*. By default, send 100, 101, 102, 103...1000. If *sweepInt* is 5, send 100, 105, 110, 115...1000). When " sweeping," the default interval is 1.
- pad—Specifies the type of bits contained in the pad TLV. You can set the bits to all ones, all zeros, a random mixture of ones and zeros, or a specific hexadecimal data pattern, in the range from 0x0–0xFFFFFFFF. The default data pattern is all zeros.
- reply mode—Specifies the reply mode for the echo request packet
  - ipv4-udp—Specifies that the echo request packet is an IPv4 UDP packet
  - ipv4-udp-with-router-alert—Specifies that the echo request packet is an IPv4 UDP packet with the router alert bit set in the header so all routers examine this packet more closely to determine whether further processing is necessary
- reply pad-tlv—Requests sender of an echo reply to send a pad TLV
- *trafficClass*—Number in the range 0–255 that represents the value of the traffic class that the sender of an echo reply is requested to set
- *txDelayVal*—Number of milliseconds in the range 1–50 between transmission of each echo request; default value is 10 ms
- *bitValue*—Value of the EXP bits in the range 0–7 included in the MPLS echo request packet
- *bottomLabelTtl*—Time-to-live value of the bottom label in the stack
- detail—Displays detailed information about MPLS echo request sent and echo replies received

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Mode Privileged Exec, User Exec

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ping mpls rsvp tunnel

Syntax ping mpls { traffic-eng | rsvp } [vrf *vrfName*] tunnel *tunnelName*
[destination *startIpAddress endIpAddress increment*]
[source address *sourceAddr*] [[repeat] *packetCount*]
[ttl *ttlValue*] [timeout *timeOutVal*]
[data-size *dataSize* | sweep-sizes *sweepMin sweepMax sweepInt*]
[pad { ones | zeros | random | hex-data *hexData* }]
[reply mode { ipv4-udp | ipv4-udp-with-router-alert }]
[reply pad-tlv] [reply dscp *trafficClass*]
[interval *txdelayVal*] [exp-bits *bitValue*] [detail]

Release Information Command introduced in JunosE Release 8.0.0.

Description Sends an MPLS echo request packet to the specified RSVP-TE tunnel, or alternatively, sends MPLS echo packets to the egress node in a point-to-multipoint LSP. There is no **no** version.

The MPLS echo request packets and echo reply packets created by this command use the RSVP IPv4 sub-TLV described in RFC 4379—Detecting Multi-Protocol Label Switched (MPLS) Data Plane Failures (February 2006).

The MPLS echo request packets and echo reply packets created by this command to detect connectivity to egress nodes in point-to-multipoint LSPs use the P2MP Responder Identifier TLV described in the IETF draft, Detecting Data Plane Failures in Point-to-Multipoint Multiprotocol Label Switching (MPLS) - Extensions to LSP Ping—draft-ietf-mpls-p2mp-lsp-ping-08.txt (February 2010 expiration).

Options

- traffic-eng—Specifies optional keyword for compatibility with non–E Series implementations
- *vrfName*—Name of the VRF context; specify the VRF only when the RSVP-TE tunnel originates in the VRF because the ping is generated from the specified VRF
- *tunnelName*—Name of the RSVP-TE tunnel; can be a bypass tunnel
- *startIpAddress*—First IP address within the 127.0.0.0/8 destination range
- *endIpAddress*—Last IP address within the 127.0.0.0/8 destination range
- *increment*—Number in the range 0–255 that specifies the increment between addresses in the destination address range
- *sourceAddr*—IP address used as the packet source address
- repeat—Specifies that multiple ping packets are sent
- *packetCount*—Number of packets to send to the destination address, in the range 0–4294967295; default value is 5; 0 means ping forever
- *ttlValue*—Hop count specified by setting the time-to-live field in the header in the range 1–255; default value is 32

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- *timeOutVal*—Number of seconds in the range 1–32 to wait for an MPLS echo reply packet before the connection attempt times out
- *dataSize*—Number of bytes comprising the MPLS packet, including the header, in the range 0–64000; default value is 100 bytes
- sweep-sizes—Configures payload sizes, enabling you to vary the sizes of the echo packets being sent. This capability is useful for determining the minimum sizes of the MTUs configured on the nodes along the path to the destination address. This reduces packet fragmentation which contributes to performance problems. The default is not to sweep; all packets are the same size.
  - *sweepMin*—Minimum payload size in the range 0–64000
  - *sweepMax*—Maximum payload size in the range 0–64000
  - *sweepInt*—Number of bytes to add to the size of the packet; the change in the size of subsequent ping packets while sweeping across a range of sizes. For example, you can configure the sweep interval to sweep across the range of packets from 0 bytes to 10,000 bytes in increments of *sweepInt*. By default, send 100, 101, 102, 103...1000. If *sweepInt* is 5, send 100, 105, 110, 115...1000). When " sweeping," the default interval is 1.
- pad—Specifies the type of bits contained in the pad TLV. You can set the bits to all ones, all zeros, a random mixture of ones and zeros, or a specific hexadecimal data pattern, in the range from 0x0–0xFFFFFFFF. The default data pattern is all zeros.
- reply mode—Specifies the reply mode for the echo request packet
  - ipv4-udp—Specifies that the echo request packet is an IPv4 UDP packet
  - ipv4-udp-with-router-alert—Specifies that the echo request packet is an IPv4 UDP packet with the router alert bit set in the header so all routers examine this packet more closely to determine whether further processing is necessary
- reply pad-tlv—Requests sender of an echo reply to send a pad TLV
- *trafficClass*—Number in the range 0–255 that represents the value of the traffic class that the sender of an echo reply is requested to set
- *txDelayVal*—Number of milliseconds in the range 1–50 between transmission of each echo request; default value is 10 ms
- *bitValue*—Value of the EXP bits in the range 0–7 included in the MPLS echo request packet
- detail—Displays detailed information about MPLS echo request sent and echo replies received

Mode Privileged Exec, User Exec

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ping mpls vpls

Syntax ping mpls vpls [vrf *vrfName*] *vplsName*
[sender-site-id *senderSiteId*] remote-site-id *remoteSiteId*
[destination *startIpAddress endIpAddress increment*]
[source address *sourceAddr*] [[repeat] *packetCount*]
[ttl *ttlValue*] [timeout *timeOutVal*]
[data-size *dataSize* | sweep-sizes *sweepMin sweepMax sweepInt*]
[pad { ones | zeros | random | hex-data *hexData* }]
[reply mode { ipv4-udp | ipv4-udp-with-router-alert }]
[reply pad-tlv] [reply dscp *trafficClass*]
[interval *txdelayVal*] [exp-bits *bitValue*] [bottom-label-ttl *bottomLabelTtl*]
[detail]

Release Information Command introduced in JunosE Release 8.0.0.

Description Sends an MPLS echo request packet to the specified VPLS instance, or alternatively, sends MPLS echo packets to the egress node in a point-to-multipoint LSP. There is no **no** version.

The echo request packet generated by this command contains the layer 2 VPN endpoint sub-TLV described in RFC 4379—Detecting Multi-Protocol Label Switched (MPLS) Data Plane Failures (February 2006).

The MPLS echo request packets and echo reply packets created by this command to detect connectivity to egress nodes in point-to-multipoint LSPs use the P2MP Responder Identifier TLV described in the IETF draft, Detecting Data Plane Failures in Point-to-Multipoint Multiprotocol Label Switching (MPLS) - Extensions to LSP Ping—draft-ietf-mpls-p2mp-lsp-ping-08.txt (February 2010 expiration).

Options

- *vrfName*—Name of the VRF context from which to generate the ping
- *vplsName*—Name of a VPLS instance created with the bridge vpls transport-virtual-router command
- *senderSiteId*—Numerical identifier for the site sending the MPLS echo request packet; must be an unsigned 16-bit integer greater than zero that is unique across the VPLS domain
- *remoteSiteId*—Numerical identifier for the site receiving the MPLS echo request packet; must be an unsigned 16-bit integer greater than zero that is unique across the VPLS domain
- *startIpAddress*—First IP address within the 127.0.0.0/8 destination range
- *endIpAddress*—Last IP address within the 127.0.0.0/8 destination range
- *increment*—Number in the range 0–255 that specifies the increment between addresses in the destination address range
- *sourceAddr*—IP address used as the packet source address
- repeat—Specifies that multiple ping packets are sent

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- *packetCount*—Number of packets to send to the destination address, in the range 0–4294967295; default value is 5; 0 means ping forever
- *ttlValue*—Hop count specified by setting the time-to-live field in the header, in the range 1–255; default value is 32; however, by default, the TTL on the inner (stacked) label is set to 1 while transmitting the echo request packet, which causes the packet to be exceptioned to the SRP module when the stacked label is exposed
- *timeOutVal*—Number of seconds, in the range 1–32 to wait for an MPLS echo reply packet before the connection attempt times out
- *dataSize*—Number of bytes comprising the MPLS packet, including the header, in the range 0–64000; default value is 100 bytes
- sweep-sizes—Configures payload sizes, enabling you to vary the sizes of the echo packets being sent. This capability is useful for determining the minimum sizes of the MTUs configured on the nodes along the path to the destination address. This reduces packet fragmentation which contributes to performance problems. The default is not to sweep; all packets are the same size.
  - *sweepMin*—Minimum payload size in the range 0–64000
  - *sweepMax*—Maximum payload size in the range 0–64000
  - *sweepInt*—Number of bytes to add to the size of the packet; the change in the size of subsequent ping packets while sweeping across a range of sizes. For example, you can configure the sweep interval to sweep across the range of packets from 0 bytes to 10,000 bytes in increments of *sweepInt*. By default, send 100, 101, 102, 103...1000. If *sweepInt* is 5, send 100, 105, 110, 115...1000). When " sweeping," the default interval is 1.
- pad—Specifies the type of bits contained in the pad TLV. You can set the bits to all ones, all zeros, a random mixture of ones and zeros, or a specific hexadecimal data pattern, in the range from 0x0–0xFFFFFFFF. The default data pattern is all zeros.
- reply mode—Specifies the reply mode for the echo request packet
  - ipv4-udp—Specifies that the echo request packet is an IPv4 UDP packet
  - ipv4-udp-with-router-alert—Specifies that the echo request packet is an IPv4 UDP packet with the router alert bit set in the header so all routers examine this packet more closely to determine whether further processing is necessary
- reply pad-tlv—Requests sender of an echo reply to send a pad TLV
- *trafficClass*—Number in the range 0–255 that represents the value of the traffic class that the sender of an echo reply is requested to set
- *txDelayVal*—Number of milliseconds in the range 1–50 between transmission of each echo request; default value is 10 ms
- *bitValue*—Value of the EXP bits in the range 0–7 included in the MPLS echo request packet

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- *bottomLabelTtl*—Time-to-live value of the bottom label in the stack
- detail—Displays detailed information about MPLS echo request sent and echo replies received

Mode Privileged Exec, User Exec

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policer

Syntax

policer protocol *protocolValue* rate *rateSize* burst-size *burstSize*

no policer protocol *protocolValue*

Release Information

Command introduced in JunosE Release 8.0.0.

Description

Configures token bucket policing to rate limit SRP module traffic flows. The **no** version disables policing for a specific protocol or for all protocols.

Options

- *protocolValue*—Name of the protocol. For details about the values that are displayed for this attribute in the CLI interface, see the *Protocol Mapping* section in Understanding DoS Protection. The following names of protocols apply to the *protocolValue* variable that is available with this command, in addition to the list of protocol names that are described in the *Protocol Mapping* section.
  - EthernetFcBasedPppTerminate—Ethernet forwarding controller-based PPP Fast Reconnect
  - EthernetOam—Ethernet OAM packet
  - IpFastBfd—IP fast BFD
  - IpLocalFastBfd—IP local fast BFD
  - IpRouteNull0Interface—IP route to null 0 interface
- *rateSize*—Rate, in packets per second in the range 0–10000.
- *burstSize*—Size, in bytes, in the range 0–10000.

Mode

Control Plane Configuration

Related Documentation

- Rate-Limiting Traffic Flows

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policy-parameter hierarchical

Syntax policy-parameter *parameterName* hierarchical

no policy-parameter *parameterName*

Release Information Command introduced in JunosE Release 8.0.0.

Description Creates a policy parameter for a hierarchical rate limit. The **no** version removes the policy parameter and its contents.

Options
- *parameterName*—Name of policy parameter

Mode Global Configuration

Related Documentation
- Creating a Classifier Group for a Policy List

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policy-resource-exhaustion-trap-enable

Syntax [no] policy-resource-exhaustion trap enable

Release Information Command introduced in JunosE Release 14.2.0.

Description Enables the policy resource exhaustion trap to send an SNMP trap notification along with the slot number, resource type, and resource direction type when the policy resources are exhausted. The **no** version disables the trap for policy resource exhaustion, which is the default behavior.

Mode Privileged Exec, User Exec

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pos description

Syntax pos description *name*

no pos description

Release Information Command introduced before JunosE Release 7.1.0.

Description Assigns a text description or an alias to a POS HDLC interface. Use the **show interfaces pos** command to display the text description. The **no** version removes the description or alias.

Options
- *name*—Text string or alias of up to 80 characters for the POS interface

Mode Interface Configuration

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pos framing

Syntax pos framing { sdh | sonet }

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the type of framing for a POS interface. There is no **no** version.

Options
- sdh—Uses SDH framing format
- sonet—Uses SONET framing format (the default)

Mode Interface Configuration

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pos scramble-atm

Syntax [no] pos scramble-atm

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables payload scrambling on a POS interface. When enabled, both sides of the connection must be using the scrambling algorithm. The router uses a 43rd-order synchronous scrambler to scramble the output data. Scrambling is enabled by default. The **no** version disables scrambling on the POS interface.

Mode Interface Configuration

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ppp aaa-accounting-broadcast

Syntax ppp aaa-accounting-broadcast *vrGroupName*

no ppp aaa-accounting-broadcast

Release Information Command introduced in JunosE Release 14.2.0.

Description Configures the name of the broadcast virtual router group, which is used to send broadcast accounting packets to the broadcast accounting servers. If the virtual router group exists in the router, AAA reads the virtual router group configuration and sends the broadcast accounting packets to the broadcast accounting servers on the basis of the virtual router group configuration. The **no** version deletes the virtual router group configured to send the broadcast accounting packets.

Options

- *vrGroupName*—Name of the broadcast virtual router group. This value is a string of up to 32 characters.

Mode Profile Configuration

Related Documentation

- Configuring Interim, Broadcast, and Policy-Based Accounting in Virtual Router Groups and PPP Profiles

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ppp aaa-profile

Syntax ppp aaa-profile *profileName*

no ppp aaa-profile

Release Information Command introduced before JunosE Release 7.1.0.

Description Maps an AAA profile to static and dynamic, multilink and nonmultilink PPP interfaces. The PPP application associates the AAA profile with the interface and passes the AAA profile to AAA for authentication. The **no** version removes the AAA profile assignment to the PPP interface. If an AAA profile is deleted after it has been assigned to an interface, AAA denies the authentication and logs a message. When you remove an AAA profile, it does not remove any corresponding bindings between PPP interfaces or interface profiles and the AAA profile. If an AAA profile with the same name is added, the interface cannot authenticate until the AAA profile is reassigned.

NOTE: Although an AAA profile and an interface profile have similar functionality, they are not related and you need to treat them differently.

Options

- *profileName*—Name of the AAA profile; 32 characters maximum

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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ppp authentication

Syntax ppp authentication [virtual-router *vrName*] { *authProtocol* }

no ppp authentication

Release Information Command introduced before JunosE Release 7.1.0.
eap keyword added in JunosE Release 7.3.0.

Description Requests authentication from a PPP peer router. The **no** version removes the authentication requirement.

Options

- *vrName*—Name of a virtual router to be used as the authentication virtual router. Keep the following points in mind when you use this keyword:
  - When you specify a VR in the **ppp authentication** command, AAA does not query the domain map for the assigned VR context. Instead, AAA uses the VR specified in the **ppp authentication** command as the authentication VR context and issues the authentication request to the authentication server in the assigned VR context.
  - If you specify the default VR as the authentication VR context, AAA loosely binds the user to the default VR. This means that RADIUS *can override* the default VR context with a new VR context during the authentication process. When the **ppp authentication virtual-router** command specifies the default VR, AAA returns either the default VR or the VR specified by RADIUS.
  - If you specify a VR other than the default VR as the authentication VR, AAA tightly binds the user to the specified VR. This means that RADIUS *cannot override* the specified VR context with a new VR context during the authentication process. When the **ppp authentication virtual-router** command specifies a nondefault VR, AAA returns the specified VR.
  - If the VR specified in a profile with the **ip virtual-router** command differs from the VR provided by AAA, IP uses the VR provided by AAA when the dynamic IP upper-layer interface is created.
  - If the VR specified in a profile with the **ipv6 virtual-router** command differs from the VR provided by AAA, IPv6 uses the VR provided by AAA when the dynamic IPv6 upper-layer interface is created.
- *authProtocol*—One or more of the following protocols, in order of preference; if the peer router refuses to negotiate the first choice, then the local router requests the next specified protocol, and so on; if the peer router refuses to negotiate authentication, the local router terminates the session

NOTE: The JunosE Software's PPP application accepts null usernames during PAP and CHAP authentication. When the PPP application receives an authentication request that includes a null username, PPP passes the request to AAA. To take advantage of this feature, configure your authentication server to support the use of null usernames.

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- eap—Specifies EAP authentication protocol
- chap—Specifies CHAP authentication protocol; MD5 authentication algorithm is supported
- pap—Specifies PAP authentication protocol

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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ppp chap-challenge-length

Syntax ppp chap-challenge-length *minLength maxLength*

no ppp chap-challenge-length

Release Information Command introduced before JunosE Release 7.1.0.

Description Modifies the length of the CHAP challenge by specifying the minimum and maximum allowable length. The **no** version restores the defaults.

CAUTION: Do *not* use the **ppp chap-challenge-length** command; increasing the minimum length (from the default 16 bytes) or decreasing the maximum length (from the default 32 bytes) reduces the security of your router.

Options

- *minLength*—Minimum length of the CHAP challenge in bytes, in the range 8–63; default value is 16 bytes
- *maxLength*—Maximum length of the CHAP challenge in bytes, in the range 8–63; value must be equal to or greater than the minimum length; default value is 32 bytes

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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ppp description

Syntax ppp description *name*

no ppp description

Release Information Command introduced before JunosE Release 7.1.0.

Description Assigns a text description or an alias to a static PPP interface. The **no** version removes the text description or alias.

Options
- *name*—Text description or alias for the ppp interface; up to 64 characters

Mode Interface Configuration, Subinterface Configuration

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ppp dos-protection-group

Syntax ppp dos-protection-group *groupName*

no ppp dos-protection-group

Release Information Command introduced in JunosE Release 8.1.0.

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

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

Mode Interface Configuration

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ppp fragmentation

Syntax ppp fragmentation [*fragmentSize*]

no ppp fragmentation

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables fragmentation on an MLPPP link interface and optionally specifies the maximum fragment size, in octets, to be used on the link. The **no** version disables fragmentation on the link and restores the default fragment size, which is the link's MTU.

Options

- *fragmentSize*—Maximum allowable size of the fragment, in the range 128–65535; the default fragment size is the link's MTU

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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ppp hash-link-selection

Syntax [no] ppp hash-link-selection

Release Information Command introduced in JunosE Release 7.2.0.

Description Enables use of a hash-based algorithm to select the link on which the router transmits high-priority (non-best-effort) packets, such as voice or video, on an MLPPP interface. If hash-based link selection is enabled, the router uses the IP source address and IP destination address of the packet as a hash to select the MLPPP member link on which to transmit the packet. Using the hash-based algorithm instead of the default round-robin algorithm for MLPPP link selection ensures that the router maintains the proper packet order when transmitting high-priority packets. The **no** version restores the default round-robin algorithm for MLPPP link selection.

NOTE: Hash-based MLPPP link selection is available only for non-best-effort traffic. For best-effort traffic, the router uses a round-robin algorithm for link selection.

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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ppp initiate-ip

Syntax [no] ppp initiate-ip

Release Information Command introduced before JunosE Release 7.1.0.

Description Initiates IPv4 for passive clients. By default, PPP creates IP instances when it receives client requests. The **no** version disables initiation.

Passive PPP clients are those subscribers configured with passive mode on dynamic or static PPP interfaces using the **ppp passive-mode** command. By default, passive mode is enabled on a PPP interface. Passive mode causes the PPP interfaces to wait for a period of one second before initiating LCP negotiation. This waiting period enables slow clients to start up and initiate LCP negotiation. Active PPP clients initiate the LCP negotiation process without waiting for the other side of the connection to initiate the negotiation.

If you configure a PPP interface without an IP interface or profile by not entering the **ppp initiate-ip** command, the router performs LCP negotiation for 2 to 3 minutes for passive clients. LCP negotiation is terminated after this period. To enable LCP negotiations to continue to occur for passive clients, you must enter the **ppp initiate-ip** command to enable PPP to create IP instances.

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Related Documentation

- Understanding PPP Link Control Protocol

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ppp initiate-ipv6

Syntax [no] ppp initiate-ipv6

Release Information Command introduced before JunosE Release 7.1.0.

Description Initiates IPv6 for passive clients. By default, PPP creates IPv6 instances when it receives client requests. The **no** version disables initiation.

Passive PPP clients are those subscribers configured with passive mode on dynamic or static PPP interfaces using the **ppp passive-mode** command. By default, passive mode is enabled on a PPP interface. Passive mode causes the PPP interfaces to wait for a period of one second before initiating LCP negotiation. This waiting period enables slow clients to start up and initiate LCP negotiation. Active PPP clients initiate the LCP negotiation process without waiting for the other side of the connection to initiate the negotiation.

If you configure a PPP interface without an IPv6 interface or profile by not entering the **ppp initiate-ipv6** command, the router performs LCP negotiation for 2 to 3 minutes for passive clients. LCP negotiation is terminated after this period. To enable LCP negotiations to continue to occur for passive clients, you must enter the **ppp initiate-ipv6** command to enable PPP to create IP instances.

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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ppp ipcp lockout

Syntax [no] ppp ipcp lockout

Release Information Command introduced in JunosE Release 11.0.0.

Description Terminates invalid IPv4 subscribers and prevents additional IPCP negotiations. The subscriber can negotiate IPv4 addresses, IPv6 addresses, or both. When Internet Protocol version 6 Control Protocol (IPv6CP) is active, this command enables unused IPv4 addresses, which are allocated for the IPv6 subscribers, to be available for the IPCP services for an internally defined time interval (10 seconds). When the time interval elapses, the subscriber must connect again to negotiate IPCP. The **no** version disables the lockout option.

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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ppp ipcp-lockout-duration

Syntax [no] ppp ipcp-lockout-duration *LockoutInterval*

Release Information Command introduced in JunosE Release 13.1.0.

Description Specifies the time period during which additional IPCP negotiations are prevented. The range of the time period is 300-600 seconds. By default, the time interval for which additional IPCP negotiations from subscribers are disallowed is 600 seconds. The **no** version restores the default behavior.

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Related Documentation

- Configuring IPCP Renegotiations in a Dual-Stack Network for Optimal Utilization of Released IPv4 Addresses
- IPCP Renegotiation of IPv4 Addresses for Dual-Stack Subscribers

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ppp ipcp-max-negotiation

Syntax [no] ppp ipcp-max-negotiation *maxRenegotiationsCount*

Release Information Command introduced in JunosE Release 13.1.0.

Description Specifies the maximum number of requests for IPv4 addresses that can be received per subscriber during the time interval configured for IPCP renegotiations to be received. The range of maximum number of successful renegotiations or requests for IPv4 addresses permitted per client is 3-6. By default, the maximum number of successful renegotiations permitted per client is six. The **no** version restores the default behavior.

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Related Documentation

- Configuring IPCP Renegotiations in a Dual-Stack Network for Optimal Utilization of Released IPv4 Addresses
- IPCP Renegotiation of IPv4 Addresses for Dual-Stack Subscribers

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ppp ipcp-nego-duration

Syntax [no] ppp ipcp-nego-duration *RenegotiationsInterval*

Release Information Command introduced in JunosE Release 13.1.0.

Description Specifies a time period during which IPCP renegotiations for IPv4 addresses that the router or the provider edge (PE) device can receive from a subscriber is restricted. The range of the time interval is 60-600 seconds. By default, the time interval during which the number of renegotiation requests must be restricted is 60 seconds. The **no** version restores the default behavior.

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Related Documentation

- Configuring IPCP Renegotiations in a Dual-Stack Network for Optimal Utilization of Released IPv4 Addresses
- IPCP Renegotiation of IPv4 Addresses for Dual-Stack Subscribers

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ppp ipcp netmask

Syntax [no] ppp ipcp netmask

Release Information Command introduced before JunosE Release 7.1.0.

Description Explicitly enables the IPCP option 0x90 on a per-PPP interface basis, either in a profile or on a static interface. By default, the IPCP option 0x90 is disabled on the interface. The **no** version disables the IPCP option 0x90.

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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ppp ipcp prompt-option dns

Syntax [no] ppp ipcp prompt-option dns

Release Information Command introduced in JunosE Release 11.0.0

Description Prompts the CPE (Customer Premises Equipment) to negotiate the IPCP primary and secondary DNS options that are locally available with the broadband remote access server

Mode Interface Configuration, Profile Configuration

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ppp keepalive

Syntax ppp keepalive [*seconds*]

no ppp keepalive

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies a keepalive value. The keepalive mechanism tracks the status of the connection. To restore the default of 30 seconds, enter **ppp keepalive** without a value. High-density mode is automatically selected when PPP is layered over ATM, tunnel, or PPPoE. Low-density mode is selected when PPP is layered over HDLC.

When the keepalive timer expires, the interface searches for frames received from the peer in the prior keepalive timeout seconds. If the interface finds such frames, it does not send an LCP echo request (keepalive). Keepalive packets are sent only if the peer is silent (no traffic was received from the peer during the previous keepalive timeout interval). If both sides are configured with keepalive, receipt of an LCP echo request by one end suppresses the transmission of an LCP echo request by that end. If the keepalive interval is 30 seconds, a failed link is detected between 90 and 120 seconds after failure.

The **no** version disables keepalive.

Options

- *seconds*—Keepalive timeout period, in the range 30–64800 seconds for high-density mode, 1–64800 seconds for POS uplink interfaces in low-density mode, or 10–64800 seconds for all other HDLC interfaces in low-density mode; default value is 30 seconds

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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ppp log

Syntax [no] ppp log *logCategory*

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables PPP packet or state machine logging on any dynamic interface that uses the profile being configured. The **no** version disables the logging.

NOTE: This command is equivalent to the **log severity debug pppPacket** and **log severity debug pppStateMachine** commands.

Options

- *logCategory*—One of the following categories
  - pppPacket—Enables PPP packet logging
  - pppStateMachine—Enables PPP state machine logging

Mode Profile Configuration

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ppp magic-number disable

Syntax [no] ppp magic-number disable

Release Information Command introduced before JunosE Release 7.1.0.

Description Disables negotiation of the local magic number. Issuing this command prevents the router from detecting loopback configurations. The **no** version enables negotiation.

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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ppp magic-number ignore-mismatch

Syntax [no] ppp magic-number ignore-mismatch

Release Information Command introduced in JunosE Release 9.0.0.

Description Causes the router to ignore a mismatch of the Link Control Protocol (LCP) peer magic number and retain the PPP connection when the peer has not negotiated an LCP magic number. The **no** version restores the default behavior, in which the router terminates the PPP connection if it detects an LCP peer magic number mismatch.

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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ppp max-bad-auth

Syntax ppp max-bad-auth *maxBadAuth*

no ppp max-bad-auth

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the maximum number of authentication retries the router accepts before terminating a PPP session. The **no** version returns the value to the default.

Options
- *maxBadAuth*—Number of authentication retries after which the interface resets itself; in the range 0–7; default value is 0, which indicates that no retries are allowed

Mode Interface Configuration, Subinterface Configuration

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ppp max-negotiations

Syntax ppp max-negotiations [lcp | ipcp | ipv6cp] [*maxNegotiationsCount*]

no ppp max-negotiations [lcp | ipcp | ipv6cp]

Release Information Command introduced in JunosE Release 10.0.0.

Description Configures the maximum number of LCP, IPCP, or IPv6CP renegotiation attempts the router accepts before terminating a PPP session.

The maximum number of renegotiation attempts helps to avoid massive renegotiation loops that can occur between the router and a noncompliant PPP client. Such renegotiation loops can cause excessive CPU utilization and can prevent the PPP client from coming up properly. When a PPP client exceeds the configured maximum number of renegotiation attempts, the router sends a termination request to end the PPP session. When the PPP session is terminated and LCP goes into a stopped (closed) state, dynamic PPP or MLPPP interface columns are torn down and wait to be recreated when traffic is detected on the interface.

When both IPv4 interface columns and IPv6 interface columns are configured over a PPP link-layer interface, the router terminates the PPP session only when the PPP client exceeds the configured maximum number of renegotiation attempts for both the IPv4 interface and the IPv6 interface.

If you do not specify the optional **lcp**, **ipcp**, or **ipv6cp** keyword, the command sets the maximum number of renegotiation attempts for each of LCP, IPCP, and IPv6CP to the value you specify, or to the default value (30) if you omit the optional *maxNegotiationsCount* value. When a PPP client exceeds the configured maximum number of renegotiation attempts, the router sends a termination request to end the PPP session.

The **no** version restores the default value, 30 renegotiation attempts.

NOTE: Renegotiation is triggered when LCP, IPCP, or IPv6CP are in Established state and CPE sends out a request (for example, an IPCP configuration request). During renegotiation, the ERX PPP IPCP state machine goes to Down state and then comes back up to Established state. If renegotiation is attempted multiple times, the system allows the event to be triggered for *maxNegotiationsCount* times. Once the max-renegotiation limit is reached, the session is terminated.

Options

- lcp—Sets the maximum number of renegotiation attempts for the Link Control Protocol (LCP)
- ipcp—Sets the maximum number of renegotiation attempts for the Internet Protocol Control Protocol (IPCP)

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- ipv6cp—Sets the maximum number of renegotiation attempts for the Internet Protocol version 6 Control Protocol (IPv6CP)
- *maxNegotiationsCount*—Maximum number of renegotiation attempts the router accepts before terminating a PPP session, in the range 1–65535; default value is 30

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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ppp mru

Syntax ppp mru *mruSize*

no ppp mru

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the maximum allowable size in bytes of the maximum receive unit for PPP or MLPPP interfaces. If you issue the command in the context of an encapsulated PPP or MLPPP interface, it affects only that interface. If you issue the command in the context of an MLPPP bundle, it affects all member links within that bundle.

If the value configured for the PPP MRU is greater than the value of the lower-layer MRU minus the PPP header length, the router logs a warning message and uses the lesser of the configured MRU value or the lower-layer MRU value minus the PPP header length to negotiate the local MRU. If the value configured for the PPP MRU conflicts with a similar value configured for another protocol, such as the MTU value for PPPoE, the router uses the lesser of the two values.

The **no** version restores the default value, the lower-layer MRU minus the PPP header length, which varies according to module type.

NOTE: We recommend you coordinate this value with the network administrator on the other end of the line.

Options

- *mruSize*—Maximum allowable size of the MRU; number of bytes in the range 64–65535

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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ppp multilink enable

Syntax [no] ppp multilink enable

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables creation of dynamic MLPPP interfaces when used in a profile. The **no** version causes the LNS to reject any incoming requests to establish dynamic MLPPP interfaces.

Mode Profile Configuration

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ppp multilink multiclass

Syntax ppp multilink multiclass [multilink-classes *classNumber*]

no ppp multilink multiclass [multilink-classes]

Release Information Command introduced in JunosE Release 11.1.0.

Description Enables multiclass MLPPP on the router, and optionally creates a specified number of multilink classes. The **no** version without the **multilink-classes** keyword disables multiclass MLPPP on the router. The **no** version with the **multilink-classes** keyword restores the number of multilink classes to the default value, 1.

Options

- *classNumber*—Number of multilink classes that can be created in the range 1–8, with a default value of 1.

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Related Documentation

- Enabling Multiclass MLPPP
- Configuring Multiclass MLPPP

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ppp multilink multiclass fragmentation

Syntax [no] ppp multilink multiclass fragmentation [*trafficClassName*]*

Release Information Command introduced in JunosE Release 11.1.0.

Description Enables fragmentation on a specified multilink class. The fragment size of each class is the same as that of the MLPPP link. The **no** version disables fragmentation on all multilink classes, or on the specified multilink classes if you include one or more traffic class names.

Options

- *trafficClassName*—Name of a QoS traffic class. You can enable fragmentation for up to eight traffic classes. You must specify the best-effort traffic class in the command or the command fails.
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Related Documentation

- Configuring Fragmentation on Multiclass MLPPP Interfaces
- Configuring Multiclass MLPPP

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ppp multilink multiclass reassembly

Syntax [no] ppp multilink multiclass reassembly [*trafficClassName*]*

Release Information Command introduced in JunosE Release 11.1.0.

Description Enables reassembly on a specified multilink class. The maximum received reconstructed unit (MRRU) value of each class is the same as that of the MLPPP link. The **no** version disables reassembly on all multilink classes, or on the specified multilink classes if you include one or more traffic class names.

Options

- *trafficClassName*—Name of a QoS traffic class. You can enable reassembly for up to eight traffic classes. You must specify the best-effort traffic class in the command or the command fails.
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Related Documentation

- Configuring Multiclass MLPPP
- Configuring Reassembly on Multiclass MLPPP Interfaces

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ppp multilink multiclass traffic-class

Syntax [no] ppp multilink multiclass traffic-class best-effort [*trafficClassName*]*

Release Information Command introduced in JunosE Release 11.1.0.

Description Configures mapping of QoS traffic classes to multilink classes. The **no** version deletes the mapping of QoS traffic classes to multilink classes.

Options

- best-effort—Specifies best-effort as the default traffic class for the router. The best-effort traffic class forwards as many packets as possible in as reasonable a time as possible. The best-effort traffic class is mapped to multilink class 0 by default. You must specify the best-effort traffic class in the command or the command fails.
- *trafficClassName*—Name of a QoS traffic class. You can map up to eight traffic classes to multilink classes. The order of the traffic class names specified determines the multilink class number which is used for the traffic class; for example, trafficClassName1 corresponds to multilink class 1, trafficClassName2 corresponds to multilink class 2, and so on.
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Related Documentation

- Configuring Multiclass MLPPP
- Configuring Traffic Classes on Multiclass MLPPP Interfaces

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ppp ncp-Ordering-Required

Syntax [no] ppp ncp-Ordering-Required

Release Information Command introduced in JunosE Release 12.3.0.

Description Enables PPP sessions to be established and packet over SONET (POS) interfaces that are configured with PPP encapsulation to be moved to the up state only when the Network Control Protocol (NCP) packets are received in a sequence format. If the NCP packets arrive out-of-sequence, the POS interfaces remain in the down state. By default, PPP sessions are established only when NCP packets arrive in a sequenced format. The **no** version enables PPP sessions to be activated even when the NCP packets arrive in an out-of-sequence format. In such a case, the POS interfaces with PPP encapsulation transition to the up state even when the NCP packets are out-of-sequence.

Mode Global Configuration

Related Documentation

- Overview of Sequencing NCP Packets for POS Interfaces with PPP Encapsulation
- Sequencing NCP Packets for POS Interfaces with PPP Encapsulation

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ppp passive-mode

Syntax [no] ppp passive-mode

Release Information Command introduced before JunosE Release 7.1.0.

Description Forces dynamic and static PPP interfaces into passive mode before LCP negotiation begins for a period of one second, enabling slow clients time to start up and to initiate LCP negotiation. The **no** version disables passive mode.

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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ppp peer

Syntax [no] ppp peer { dns | wins }

Release Information Command introduced before JunosE Release 7.1.0.

Description Resolves conflicts when the router and the PPP peer router have the primary and secondary DNS and WINS name server addresses configured with different values. If the PPP peer router has the address and the router does not, the peer always supplies the address regardless of how you have configured the PPP peer. The **no** version configures the router to take precedence during setup negotiations between the router and the remote personal computer client. If the IP addresses passed to the router by the remote PC client differ from the ones you have configured on your router, the router returns the values that you configured as the correct values to the remote PC client.

Options

- dns—Sets the peer to take precedence over the router for resolving conflicts in the DNS primary and secondary addresses
- wins—Sets the peer to take precedence over the router for resolving conflicts in the WINS primary and secondary addresses

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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ppp peer-ip-address-optional

Syntax [no] ppp peer-ip-address-optional

Release Information Command introduced in JunosE Release 11.2.0.

Description Allows the IPCP negotiation to succeed even though the peer does not include the IP address option in an IPCP configuration request. By default, the command is disabled.

Mode Global Configuration

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ppp reassembly

Syntax ppp reassembly [*mrru*]

no ppp reassembly

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables reassembly on an MLPPP link interface and optionally specifies the administrative MRRU value, in octets, for the link. The **no** version disables reassembly on the link and restores the default value, which is the link's local MRU.

Options

- *mrru*—Maximum allowable size of the PPP packet payload that the router can receive, in the range 64–65535; default value is the link's local MRU

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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ppp shutdown

Syntax [no] ppp shutdown [ip | ipv6 | mpls | osi]

Release Information Command introduced before JunosE Release 7.1.0.

Description Stops a PPP session. For MLPPP, issue only in the context of a network interface; the command disables the service for the MLPPP network interface (MLPPP bundle). The **no** version restarts a PPP session.

Options

- ip—Disables the IPCP service
- ipv6—Disables the IPv6CP service
- mpls—Disables MPLS service
- osi—Disables the OSINLCP service

Mode Interface Configuration, Subinterface Configuration

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pppoe

Syntax To create a PPPoE major interface in Interface Configuration mode or in Subinterface Configuration mode:

[no] pppoe

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

pppoe { permit | deny }

no pppoe

Release Information Command introduced before JunosE Release 7.1.0.

Description In Interface Configuration and Subinterface Configuration modes, creates a PPPoE major interface. The **no** version removes the interface.

In Subscriber Policy Configuration mode, modifies the subscriber policy for PPPoE to define whether the subscriber (client) interfaces that belong to a bridge group or to a VPLS instance forward (permit) or filter (deny) PPPoE packets. The **no** version restores the default value, permit PPPoE 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 the MPLS tunnels from the router to the remote VPLS edge (VE) devices.

Options

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

Mode Interface Configuration, Subinterface Configuration, Subscriber Policy Configuration

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pppoe acName

Syntax pppoe acName *string*

no pppoe acName

Release Information Command introduced before JunosE Release 7.1.0.

Description Allows you to configure an access concentrator name for a PPPoE interface or profile. If no AC name is configured, the router name is used. The **no** version removes the access concentrator name.

Options
- *string*—AC name; 64 characters maximum

Mode Interface Configuration, Profile Configuration

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pppoe always-offer

Syntax [no] pppoe always-offer

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets up the router to offer to set up a session, even if the router has insufficient resources to establish a session. The **no** version disables this feature, and is the default setting.

Mode Profile Configuration, Subinterface Configuration

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pppoe auto-configure

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

no pppoe auto-configure

Release Information Command introduced before JunosE Release 7.1.0.
lockout-time keyword, *minValue* variable, *maxValue* variable, and **none** keyword added in JunosE Release 7.2.0.

Description Configures the router to dynamically create PPPoE subinterfaces over static PPPoE major interfaces. Optionally, specifies the lockout time range for the PPPoE clients associated with the dynamic PPPoE subinterface column on the PPPoE major interface. The dynamic encapsulation type lockout temporarily prevents the static PPPoE major interface from detecting, accepting, and creating dynamic PPPoE subinterface columns until the lockout time expires. The **no** version terminates dynamic creation of PPPoE subinterfaces on the static PPPoE major interface.

NOTE: You cannot terminate dynamic creation of PPPoE subinterfaces on the static PPPoE major interface using the **no pppoe auto-configure** command in Interface Configuration mode or Subinterface Configuration mode if subscribers are still connected to that interface. When you attempt the termination of dynamic PPPoE subinterfaces, an error message alerts that this operation cannot be performed until all subscribers connected to that interface are disconnected.

Options
- *minValue*—Minimum lockout time, in the range 1–86400 seconds (24 hours)
- *maxValue*—Maximum lockout time, in the range 1–86400 seconds (24 hours)
- none—Disables lockout for the PPPoE clients associated with the dynamic PPPoE subinterface column on the static PPPoE major interface; this is the default value

Mode Interface Configuration, Subinterface Configuration

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pppoe clear lockout interface

Syntax pppoe clear lockout interface *interfaceType interfaceSpecifier macAddress*

Release Information Command introduced in JunosE Release 7.2.0.

Description In configurations with dynamic PPPoE subinterfaces over static PPPoE major interfaces, clears the lockout condition configured for the individual PPPoE client associated with the specified source media access control (MAC) address.

For PPPoE clients undergoing active lockout or in a lockout grace period, issuing this command causes the router to reset the current lockout condition and start the next lockout interval at the minimum configured lockout time.

For PPPoE sessions that contain the IWF-Session DSL Forum VSA (26-254) in the PPPoE active discovery request (PADR) packets, the encapsulation lockout condition is cleared for all IWF PPPoE sessions whose source MAC address matches the MAC address specified in the command.

There is no **no** version.

Options

- *interfaceType*—One of the following interface types listed in "Interface Types and Specifiers" on page 5:
  - 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 on page 5
- *macAddress*—Source MAC address of the PPPoE client; a 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

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pppoe dos-protection-group

Syntax pppoe dos-protection-group *groupName*

no pppoe dos-protection-group

Release Information Command introduced in JunosE Release 8.1.0.

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

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

Mode Interface Configuration

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pppoe duplicate-protection

Syntax [no] pppoe duplicate-protection

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets up the router to prevent a client from establishing more than one session using the same MAC address. The **no** version disables this feature, and is the default setting for PPPoE sessions that do not contain the IWF-Session DSL VSA (26–254) in the PPPoE Active Discovery Request (PADR) packet sent from PPPoE clients to the access concentrator.

Mode Profile Configuration, Subinterface Configuration

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pppoe log pppoeControlPacket

Syntax [no] pppoe log pppoeControlPacket

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables packet trace logging on PPPoE dynamic interfaces that are created with the profile being configured. Packet trace information is logged to the pppoeControlPacket log. The **no** version disables the logging.

Mode Profile Configuration

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pppoe max-session-vsa

Syntax pppoe max-session-vsa { override | ignore }

no pppoe max-session-vsa override

Release Information Command introduced in JunosE Release 9.3.0.

Description Configures the PPPoE application to override the current PPPoE maximum session value set with the **pppoe sessions** command with the PPPoE maximum session value returned by the RADIUS server in the Max-Clients-Per-Interface VSA [26-143] in Access-Accept messages. The **no** version restores the default behavior, which ignores the PPPoE maximum session value returned by RADIUS.

NOTE: The router never overrides the maximum number of PPPoE subinterfaces supported per line module with a value from RADIUS that is either 0 (zero) or greater than the maximum number of supported PPPoE subinterfaces. See *JunosE Release Notes, Appendix A, System Maximums* corresponding to your software release for information about the maximum number of PPPoE subinterfaces supported for each line module.

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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pppoe motm

Syntax pppoe motm *string*

no pppoe motm

Release Information Command introduced before JunosE Release 7.1.0.

Description Causes the PPPoE application to send a PADM message of the minute message. The **no** version disables the message.

The recipient of the message is determined by the mode from which the command is issued. From Privileged Exec mode the message is sent to all PPPoE clients connected to the router; from Interface Configuration mode the PADM message is sent to the client as it is configured (if connected); and from Profile Configuration mode the message is sent to the new client created when the profile is dynamically attached to an IP interface. The MOTM string is passed with no changes.

Options

- *string*—Message sent

Mode Interface Configuration, Privileged Exec, Profile Configuration

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pppoe mtu

Syntax pppoe mtu { *maximumMtu* | use-lower-layer | use-mtu-tag }

no pppoe mtu

Release Information Command introduced in JunosE Release 7.1.0.

Description Enables you to control the deployment of larger packet sizes. The **no** version restores the default behavior, which specifies a maximum MTU value.

Options

- *maximumMtu*—Maximum transfer unit parameter in bytes, in the range 66-65535 with the default value 1494
- use-lower-layer—Specifies use of the lower layer interface value minus any PPPoE overhead
- use-mtu-tag—Specifies use of the provided PPPoE mtu tag value

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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pppoe pads disable-ac-info

Syntax [no] pppoe pads disable-ac-info

Release Information Command introduced before JunosE Release 7.1.0.

Description Prevents the router from sending the AC-Name and AC-Cookie tags in the PPPoE Active Discovery Session (PADS) packet. The **pppoe pads disable-ac-info** command affects PADS packets sent on all PPPoE interfaces configured on the router after the command is issued; it has no effect on previously created PPPoE interfaces. The **no** version restores the default behavior, which is to send the AC-Name and AC-Cookie tags in the PADS packet.

Mode Global Configuration

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pppoe profile

Syntax [no] pppoe profile [bridgedEthernet | ip | ppp | pppoe | any] *profileName*

Release Information Command introduced before JunosE Release 7.1.0.

Description Assigns a profile to a static PPPoE major interface. The profile configuration is used to dynamically configure an upper bridged Ethernet, IP, PPP, and/or PPPoE interface. The **no** version removes the profile assignment from the interface.

Options

- bridgedEthernet—Specifies a bridged Ethernet encapsulation type to which the profile applies
- ip—Specifies an IP encapsulation type to which the profile applies
- ppp—Specifies a PPP encapsulation type to which the profile applies
- pppoe—Specifies a PPPoE encapsulation type to which the profile applies
- any—Specifies any autoconfigured encapsulation that does not have a specific profile assignment
- *profileName*—Profile name of up to 80 characters

Mode Interface Configuration, Subinterface Configuration

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pppoe remote-circuit-id

Syntax [no] pppoe remote-circuit-id

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables a static or dynamic PPPoE interface on the router to capture and process a vendor-specific tag containing a remote circuit ID transmitted from a DSLAM device. The router can then send this value to a RADIUS server or to an L2TP network server (LNS) to uniquely identify subscriber locations. Optionally, the router can use the remote circuit ID in place of either or both of the Calling-Station-Id [31] and NAS-Port-Id [87] RADIUS attributes to uniquely identify subscriber locations. The **no** version restores the default behavior, which is not to capture and process the remote circuit ID.

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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pppoe service-name-table

Syntax pppoe service-name-table *tableName*

no pppoe service-name-table

Release Information Command introduced before JunosE Release 7.1.0.

Description From Interface Configuration or Subinterface Configuration mode, assigns a PPPoE service name table to a PPPoE major interface for use by a static ATM or Ethernet interface. The **no** version removes the PPPoE service name table assignment.

From Profile Configuration mode, assigns a PPPoE service name table to a profile for use by the dynamic PPPoE interface column associated with the profile. The **no** version removes the PPPoE service name table assignment.

Options

- *tableName*—Name of the PPPoE service name table; string of up to 31 alphanumeric characters

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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pppoe-service-name-table

Syntax [no] pppoe-service-name-table *tableName*

Release Information Command introduced before JunosE Release 7.1.0.

Description Creates a PPPoE service name table and accesses PPPoE Service Name Table Configuration mode, which enables you to configure entries for the PPPoE service name table. PPPoE clients use the entries in a PPPoE service name table to request that an AC, such as an E Series router, support certain services. The **no** version removes the specified PPPoE service name table from the router.

Options

- *tableName*—Name of the PPPoE service name table; string of up to 31 alphanumeric characters

Mode Global Configuration

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pppoe sessions

Syntax pppoe sessions *sessions*

no pppoe sessions

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the number of subinterfaces permitted on a PPPoE interface. The command affects only subinterfaces that are created *after* the command is entered. *Previously* created interfaces remain, even if their number exceeds the new value of the parameter. The **no** version restores the default value, 8000 (ERX routers) and 16,000 (E120 and E320 routers). For ES2 10G ADV LM, the default value is 32,000 (E120 and E320 routers).

Options

- *sessions*—Number of subinterfaces permitted on the interface in the range 1–8000 (ERX routers) or 1–32,000 (E120 and E320 routers). On the ES2 10G ADV LM (E120 and E320 routers), you can have PPPoE subinterfaces in the range 1–32,000. The default value is 8000 (ERX routers) or 16,000 (E120 and E320 routers). For ES2 10G ADV LM, the default value is 32,000 (E120 and E320 routers).

NOTE: The number of subinterfaces permitted on the interface for E120 and E320 routers is in the range 1–32,000 irrespective of the type of line module. However, if you specify a value greater than the number of subinterfaces supported by a line module, the number of subinterfaces created is the default maximum value for that line module. For example, if you specify the number of subinterfaces for a ES2 4G LM as 32,000 interfaces, the number of subinterfaces created is 16,000, which is the default maximum value for the ES2 4G LM.

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

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pppoe subinterface

Syntax [no] pppoe subinterface *interfaceType interfaceSpecifier*

Release Information Command introduced before JunosE Release 7.1.0.

Description Creates a PPPoE subinterface on the specified interface. The **no** version removes the interface.

Options

- *interfaceType*—One of the following interface types listed in "Interface Types and Specifiers" on page 5:
  - 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 on page 5

Mode Global Configuration

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pppoe url

Syntax pppoe url *url*

no pppoe url

Release Information Command introduced before JunosE Release 7.1.0.

Description Causes the PPPoE application to send a string to the new client. The **no** version disables the message.

The recipient of the message is determined by the mode from which the command is issued. From Interface Configuration mode the PADM message is sent to the client as it is configured (if connected). From Profile Configuration mode the message is sent to the new client created when the profile is dynamically attached to an IP interface.

Options

- *url*—URL string sent

Mode Interface Configuration, Profile Configuration

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pre-authenticate

Syntax [no] pre-authenticate

Release Information Command introduced in JunosE Release 8.1.0.

Description Configures an AAA profile to support RADIUS preauthentication. During the preauthentication process, the router sends an Access-Request message to a RADIUS preauthentication server to obtain an AAA logical line identifier (LLID) for each subscriber. In response, the preauthentication server returns the LLID in the RADIUS Calling-Station-Id [31] attribute of an Access-Accept message. The **no** version removes preauthentication support from the AAA profile.

Mode AAA Profile Configuration

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preference

Syntax preference *tunnelPreference*

no preference

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the preference value for an L2TP tunnel. The **no** version restores the default value, 2000.

Options
- *tunnelPreference*—Tunnel preference, in the range 0–2000; 0 is the highest preference

Mode Domain Map Tunnel Configuration, Tunnel Group Tunnel Configuration

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prefix

Syntax prefix *startIpv6Prefix* { *assignedPrefixLength* | *endIpv6Prefix* } [[preferred | valid] { *days* [*hours* [*minutes* [*seconds*]]] | infinite }]

no prefix *startIpv6Prefix* [force | preferred [valid] | valid]

Release Information Command introduced in JunosE Release 10.1.0.

Description Specifies the prefix range from which IPv6 prefixes can be assigned to the DHCPv6 client. Also, configures the duration of time for which the requesting router can use the delegated prefix. If no value is specified for preferred or valid lifetime, the default lifetime of 1 day is used for the delegated prefix. The **no** version removes the IPv6 prefix range from the local address pool. You can also forcibly delete an IPv6 prefix range from which prefixes have been allocated.

NOTE: If you attempt to configure a prefix range that overlaps with an existing prefix range in the same pool, an error message is displayed and the configuration fails. Also, an error message is displayed if you try to configure a prefix range that overlaps with a prefix range in another IPv6 local address pool on the same virtual router.

Options

- *startIpv6Prefix*—Starting IPv6 prefix of the range of prefixes to be delegated to requesting routers.
- *endIpv6Prefix*—Ending IPv6 prefix of the range of prefixes to be delegated to requesting routers.
- *assignedPrefixLength*—Length of the IPv6 prefix to be assigned from this range of prefixes to the requesting router.
- preferred—Specifies use of the preferred period of time for the requesting router to use the prefix delegated by the DHCPv6 server. If the preferred lifetime is not specified, the prefix can be used by the requesting router for the default period of 1 day.
- valid—Specifies use of the valid period of time for the requesting router to use the prefix delegated by the DHCPv6 server. If the valid lifetime is not specified, the prefix can be used by the requesting router for the default period of 1 day.

NOTE: Although you can configure the valid lifetime for a prefix, the DHCPv6 server does not consider this value. The DHCPv6 server uses only the preferred lifetime for a prefix to determine the amount of time for which a prefix can be used by the requesting router.

- *days*—Number of days for the preferred or valid lifetime; in the range 0-32768.
- *hours*—Number of hours for the preferred or valid lifetime; in the range 0-24.

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- *minutes*—Number of minutes for the preferred or valid lifetime; in the range 0-60.
- *seconds*—Number of seconds for the preferred or valid lifetime; in the range 0-60.
- infinite—Assigns a preferred or valid lifetime that does not expire for the delegated prefix.
- force—Forcibly deletes the IPv6 prefix range from the local address pool.

Mode IPv6 Local Pool Configuration

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pre-share

Syntax pre-share *key*

no pre-share

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures an unencrypted (red) preshared key. The router uses this key to authenticate IKE negotiations that arrive from any remote IP address specified for this transport profile and that are destined for the local IP address specified. The **no** version removes the key.

NOTE: To have preshared key authentication take place, you must also specify the IKE policy rule as preshared by issuing the authentication command with the **pre-share** keyword in ISAKMP Policy Configuration mode.

Options

- *key*—Key value in ASCII format

Mode Local IPsec Transport Profile Configuration

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pre-share-masked

Syntax pre-share-masked *key*

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies an encrypted (black) preshared key. The router uses this key to authenticate IKE negotiations that arrive from any remote IP address specified for this transport profile and that are destined for any local IP address specified for this transport profile. There is no **no** version. To remove a key, use the **no pre-share** command.

NOTE: To have preshared key authentication take place, you must also specify the IKE policy rule as preshared by issuing the authentication command with the **pre-share** keyword in ISAKMP Policy Configuration mode.

Options

- *key*—Encrypted key value; to obtain this value, enter the unencrypted key using the **pre-share** command and then display the encrypted version of the key using the **show configuration** command

Mode Local IPsec Transport Profile Configuration

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priority burst

Syntax priority *priorityValue* burst *burstSize*

no priority *priorityValue* burst

Release Information Command introduced in JunosE Release 8.1.0.

Description Sets the burst size for each priority. The **no** version returns to the default value.

Options

- *priorityValue*—Hi-Green-IC, Hi-Green-SC, Hi-Yellow-IC, Hi-Yellow-SC, Lo-Green-IC, Lo-Green-SC, Lo-Yellow-IC, Lo-Yellow-SC
- *burstSize*—Number of packets, in the range 32–65535; 0 denotes no burst size: default value is equal to half of the configured maximum rate

Mode DoS Protection Group Configuration

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priority over-subscription-factor

Syntax priority *priorityValue* over-subscription-factor *oversubscriptionValue*

no priority *priorityValue* over-subscription-factor

Release Information Command introduced in JunosE Release 8.1.0.

Description Sets the oversubscription value for each priority rate limiter. The oversubscription value and the priority rate are used to calculate the minimum rate limits for port compression. It allows an oversubscription of the priority rate because all protocols within a priority are not generally used simultaneously. The **no** version returns to the default value.

Options

- *priorityValue*—Hi-Green-IC, Hi-Green-SC, Hi-Yellow-IC, Hi-Yellow-SC, Lo-Green-IC, Lo-Green-SC, Lo-Yellow-IC, Lo-Yellow-SC
- *oversubscriptionValue*—Percentage of packets in the range 100–1000; default value is 500

Mode DoS Protection Group Configuration

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priority rate

Syntax priority *priorityValue* rate *rateValue*

no priority *priorityValue* rate

Release Information Command introduced in JunosE Release 8.1.0.

Description Sets the rate for each priority. The **no** version returns to the default value.

Options
- *priorityValue*—Hi-Green-IC, Hi-Green-SC, Hi-Yellow-IC, Hi-Yellow-SC, Lo-Green-IC, Lo-Green-SC, Lo-Yellow-IC, Lo-Yellow-SC
- *rateValue*—Packets per second, in the range 64–65535

Mode DoS Protection Group Configuration

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privilege

Syntax privilege *mode* [all] level *levelValue commandPrefix*

no privilege *mode* [all] [level *levelValue*] *commandPrefix*

Release Information Command introduced before JunosE Release 7.1.0.

Description Assigns a privilege level to the specified command that appears in the specified mode. The **no** version sets the privilege level for the command to its default value and displays the default privilege level in the show configuration output.

NOTE: You must access the CLI at privilege level 15 to view or use this command. You cannot modify the privilege level of this command.

Options

- *mode*—Mode in which the command appears; for example, User Exec mode, Global Configuration mode, Router Configuration mode
- all—Specifies that this command assigns the specified privilege level to all commands in the specified mode and/or to all commands that match the specified command prefix
- *levelValue*—Level, in the range 0–15, at which you want the command to be accessible
- *commandPrefix*—Command prefix that you want to change; can be a partial keyword, the starting keyword(s) of a command, or a complete command

Mode Global Configuration

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privilege-group alias

Syntax [no] privilege-group alias

Release Information Command introduced in JunosE Release 8.0.0.

Description Gives the privilege group name alias to the privilege group. The **no** version removes the privilege group alias.

NOTE: You must access the CLI at privilege level 15 to view or use this command. You cannot modify the privilege level of this command.

Mode Global Configuration

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privilege-group membership

Syntax privilege-group membership privilegeGroup *privilegeGroupName* [add | remove] memberGroup *memberGroupName*

no privilege-group membership privilegeGroup

Release Information Command introduced in JunosE Release 8.0.0.

Description Adds a member group to or removes a member group from a privilege group. The **no** version restores one or all privilege groups to the default settings. When all privilege groups are reset to default settings, the privilege group membership is hierarchical.

NOTE: You must access the CLI at privilege level 15 to view or use this command. You cannot modify the privilege level of this command.

Options

- *privilegeGroupName*—Privilege group name
- *memberGroupName*—Member group name

Mode Global Configuration

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privilege-group membership clear

Syntax privilege-group membership clear privilegeGroup *privilegeGroupName*

Release Information Command introduced in JunosE Release 8.0.0.

Description Clears a privilege group or all members from a privilege group. There is no **no** version.

NOTE: You must access the CLI at privilege level 15 to view or use this command. You cannot modify the privilege level of this command.

Options

- *privilegeGroupName*—Privilege group name

Mode Global Configuration

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privilege level

Syntax privilege level *levelValue*

no privilege level

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the default login privilege level of the console line or one or more vty lines. The **no** version restores the default login privilege level for the command.

NOTE: You must access the CLI at privilege level 15 to view or use this command.

Options

- *levelValue*—Level in the range 0–15 at which you want the command accessible

Mode Line Configuration

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privilege reset

Syntax privilege *mode* [all] reset *commandPrefix*

Release Information Command introduced before JunosE Release 7.1.0.

Description Restores the privilege level of the command. After issuing this command, the show configuration output does not display the default privilege setting of the command. There is no **no** version.

Options

- *mode*—Mode in which the command appears; for example, User Exec mode, Global Configuration mode, Router Configuration mode
- all—Specifies that this command assigns the specified privilege level to all commands in the specified mode and/or to all commands that match the specified command prefix
- reset—Restores the privilege level of the command to its default
- *commandPrefix*—Command prefix for which you want to restore its default privilege level; can be a partial keyword, the starting keyword(s) of a command, or a complete command

Mode Global Configuration

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profile

Syntax

To assign a profile name for a remote host:

[no] profile *profileName*

To create a profile or assign a profile to an interface:

profile [bridgedEthernet | ip | l2tp | ppp | pppoe | vlan | any] *profileName*

no profile [bridgedEthernet | ip | l2tp | ppp | pppoe | vlan | any]

Release Information

Command introduced before JunosE Release 7.1.0.
vlan keyword added in JunosE Release 7.1.0.
IP Tunnel Destination Profile Configuration mode added in JunosE Release 8.2.0.

Description

When used from Global Configuration mode, creates a profile. Use profiles to configure interfaces dynamically, which enables you to manage a large number of interfaces effectively. The **no** version removes the profile.

When used from Interface Configuration mode and Subinterface Configuration mode, assigns a profile to an interface. Use profiles to configure interfaces dynamically, which enables you to manage a large number of interfaces effectively. The **no** version removes the profile assigned to the interface.

When used in IP Tunnel Destination Profile Configuration mode, defines an IP profile with parameters that are used to stack an upper IP interface over a dynamic GRE or DVMRP tunnel. The **no** version removes the IP profile from the destination profile.

When used from L2TP Destination Profile Host Configuration mode, sets an attribute of the current remote host. The **no** version removes the attribute from the remote host.

Options

- bridgedEthernet—Specifies a bridged Ethernet encapsulation type to which the profile applies
- ip—Specifies an IP encapsulation type to which the profile applies
- l2tp—Specifies an L2TP encapsulation type to which the profile applies
- ppp—Specifies a PPP encapsulation type to which the profile applies
- pppoe—Specifies a PPPoE encapsulation type to which the profile applies
- vlan—Specifies a VLAN encapsulation type to which the profile applies
- any—Specifies any autoconfigured encapsulation that does not have a specific profile assignment
- *profileName*—Profile name of up to 80 characters

Mode

Global Configuration, Interface Configuration, IP Tunnel Destination Profile Configuration, L2TP Destination Profile Host Configuration, Subinterface Configuration

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profile atm1483 bulk-config-name

Syntax profile atm1483 bulk-config-name *bulkConfigName profileName*

no profile atm1483 bulk-config-name *bulkConfigName*

Release Information Command introduced before JunosE Release 7.1.0.

Description Assigns the base profile configured for a dynamic ATM 1483 subinterface to the VC range configured on a static ATM AAL5 interface with the atm bulk-config command. The **no** version removes the profile assignment.

Options

- *bulkConfigName*—Name associated with the VC range on the static ATM AAL5 interface, as specified in the atm bulk-configcommand
- *profileName*—Base profile name associated with the dynamic ATM 1483 subinterface

Mode Interface Configuration

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profile atm1483 bulk-config-name pvc

Syntax profile atm1483 bulk-config-name *bulkConfigName* pvc *vpi vci overrideProfileName*

no profile atm1483 bulk-config-name *bulkConfigName* pvc *vpi vci*

Release Information Command introduced before JunosE Release 7.1.0.

Description Assigns an overriding profile to a single ATM PVC that exists within a VC subrange previously configured with the atm bulk-config command. The **profile atm1483 bulk-config-name pvc** command enables you to troubleshoot the specified PVC by overriding the currently assigned base profile with one that has debugging attributes enabled. After the overriding profile is assigned, it is used instead of the previously assigned base profile to create any ATM 1483 dynamic subinterface columns over the specified PVC. The **no** version removes the overriding profile assignment for the PVC and restores the original base profile assignment.

Options

- *bulkConfigName*—Name associated with the VC range configured for use by a dynamic ATM 1483 subinterface, as specified in the atm bulk-config command
- *vpi*—Virtual path identifier of the PVC; must exist between the starting VPI value and ending VPI value of a bulk-configured VC subrange
- *vci*—Virtual circuit identifier of the PVC; must exist between the starting VCI value and ending VCI value of a bulk-configured VC subrange
- *overrideProfileName*—Name of the profile that overrides the previously assigned base profile for the specified ATM PVC

Mode Interface Configuration

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profile-reassign

Syntax profile-reassign atm *interfaceSpecifier* { ppp | pppoe | any } *profileName*

Release Information Command introduced before JunosE Release 7.1.0.

Description Reassigns the profile currently assigned to the specified encapsulation type for the specified ATM 1483 subinterface. For troubleshooting purposes, the **profile-reassign** command enables you to " swap" the currently assigned profile for one that has PPP or PPPoE packet–logging attributes enabled. There is no **no** version.

NOTE: Issuing the **profile-reassign** command causes the router to tear down any dynamic interfaces that exist above the ATM 1483 subinterface. After the profile is reassigned, the router restores the interfaces based on the necessary client reconnections.

Options

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- ppp—Specifies a PPP encapsulation type to which the profile applies
- pppoe—Specifies a PPPoE encapsulation type to which the profile applies
- any—Specifies any autoconfigured encapsulation that does not have a specific profile assignment; valid only if neither the ppp encapsulation type nor the pppoe encapsulation type has an existing profile assignment
- *profileName*—Profile name of up to 80 characters

Mode Privileged Exec (at privilege level 5 or higher)

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profile vlan bulk-config

Syntax profile vlan bulk-config *bulkConfigName profileName*

no profile vlan bulk-config *bulkConfigName*

Release Information Command introduced in JunosE Release 7.3.0.

Description Assigns the base profile configured for a dynamic VLAN subinterface to the VLAN range configured on a static VLAN major interface with the **vlan bulk-config** command. The **no** version removes the base profile assignment.

Options

- *bulkConfigName*—Name of the VLAN range; string of up to 80 characters
- *profileName*—Profile name of up to 80 characters

Mode Interface Configuration

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profile vlan override bulk-config

Syntax To configure an override for a single-tagged VLAN ID:

profile vlan override bulk-config *bulkConfigName* vlan *vlanIdValue overrideProfileName*

To configure an override for a double-tagged S-VLAN ID:

profile vlan override bulk-config *bulkConfigName* svlan *s-vlanIdValue*
{ *vlanIdValue* | any } *overrideProfileName*

To remove the profile override assignment:

no profile vlan override bulk-config *bulkConfigName* { svlan *s-vlanId* | vlan }
{ *vlanId* | any }

Release Information Command introduced in JunosE Release 7.1.0.
bulk-config keyword and *bulkConfigName* variable added in JunosE Release 7.3.0.

Description Assigns an overriding profile to a single-tagged VLAN ID or double-tagged S-VLAN ID that exists within a VLAN subrange previously configured with the **vlan bulk-config** command. The **profile vlan override bulk-config** command enables you to assign a special profile for the subscribers associated with a specific DSLAM. After the overriding profile is assigned, it is used instead of the previously assigned base profile to create any VLAN dynamic subinterface columns over the specified VLAN ID or double-tagged S-VLAN ID. The **no** version removes the overriding profile assignment for the VLAN ID or double-tagged S-VLAN ID and restores the original base profile assignment.

Options

- *bulkConfigName*—Name of the VLAN range; string of up to 80 characters
- *s-vlanIdValue*—S-VLAN ID number, in the range 0–4095
- *vlanIdValue*—VLAN ID number, in the range 0–4095
- *overrideProfileName*—Name of the profile for which you want to assign an override
- any—Specifies the VLAN ID as a wildcard

Mode Interface Configuration

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protocol burst

Syntax protocol *protocolValue* burst *burstSize*

no protocol *protocolValue* burst

Release Information Command introduced in JunosE Release 8.1.0.

Description Sets the burst size for the protocol. The **no** version sets the value to the default packet value, which is equal to half of the configured maximum rate.

Options

- *protocolValue*—Name of the protocol. For details about the values that are displayed for this attribute in the CLI interface, see the *Protocol Mapping* section in Understanding DoS Protection.
- *burstSize*—Number of packets, in the range 32–65535; default value is one half the maximum rate.

Mode DoS Protection Group Configuration

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protocol drop-probability

Syntax protocol *protocolValue* drop-probability *dropValue*

no protocol *protocolValue* drop-probability

Release Information Command introduced in JunosE Release 8.1.0.

Description Sets the drop probability for the protocol. It maps a protocol to a specific drop probability, which is the percentage probability of an exceeded packet being dropped. The **no** version sets the drop probability value to the drop probability specified in the associated preconfigured group.

Options

- *protocolValue*—Name of the protocol. For details about the values that are displayed for this attribute in the CLI interface, see the *Protocol Mapping* section in Understanding DoS Protection.
- *dropValue*—Percentage, in the range 10–100; default value is 100.

Mode DoS Protection Group Configuration

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protocol priority

Syntax protocol *protocolValue* priority *priorityValue*

no protocol *protocolValue* priority

Release Information Command introduced in JunosE Release 8.1.0.

Description Sets the priority of the protocol. The **no** version sets the priority value to the priority value specified in the associated preconfigured group.

Options

- *protocolValue*—Name of the protocol. For details about the values that are displayed for this attribute in the CLI interface, see the *Protocol Mapping* section in Understanding DoS Protection.
- *priorityValue*—dataPath, Hi-Green, Hi-Yellow, Lo-Green, Lo-Yellow.

Mode DoS Protection Group Configuration

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protocol rate

Syntax protocol *protocolValue* rate *rateValue*

no protocol *protocolValue* rate

Release Information Command introduced in JunosE Release 8.1.0.

Description Sets the maximum rate for the specified protocol. The rate limit applies to all packets of the protocol for interfaces belonging to the DoS protection group. A particular protocol can be up to the sum of the four rates configured, depending on the DoS group attached to an interface. Use a maximum rate of 0 for protocols that are not used. The actual rate never exceeds the maximum rate, but can be less than the configured maximum rate due to the weighting of the protocols within a DoS protection group and the use of multiple DoS protection groups. The **no** version sets the rate to the value of the associated preconfigured protocol.

Options

- *protocolValue*—Name of the protocol. For details about the values that are displayed for this attribute in the CLI interface, see the *Protocol Mapping* section in Understanding DoS Protection.
- *rateValue*—Packets per second per line card, in the range 64–65335.

Mode DoS Protection Group Configuration

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protocol shutdown

Syntax [no] protocol shutdown

Release Information Command introduced in JunosE Release 7.3.0.

Description Disables the IS-IS protocol without removing the IS-IS configuration. The **no** version reenables the IS-IS protocol.

Mode Router Configuration

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protocol skip-priority-rate-limiter

Syntax [no] protocol *protocolValue* skip-priority-rate-limiter

Release Information Command introduced in JunosE Release 8.1.0.

Description Configures the protocol to skip or not skip the priority rate limiter. The specified protocol is not subject to the priority rate limiter for the priority and DoS protection group selected. The **no** version sets the value to the default, which is do not skip priority rate limiter.

Options

- *protocolValue*—Name of the protocol. For details about the values that are displayed for this attribute in the CLI interface, see the *Protocol Mapping* section in Understanding DoS Protection.

Mode DoS Protection Group Configuration

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protocol weight

Syntax protocol *protocolValue* weight *weightValue*

no protocol *protocolValue* weight

Release Information Command introduced in JunosE Release 8.1.0.

Description Sets the weight for the protocol and affects all protocols in group. For each port compression, weight determines the effective minimum rate that each protocol receives. Within each port compression, the sum of the minimum rates for all protocols is equal to or less than the priority rate. For each priority, there is a separate rate for each DoS protection group. The **no** version sets the weight to the value specified in the associated preconfigured group.

Options

- *protocolValue*—Name of the protocol. For details about the values that are displayed for this attribute in the CLI interface, see the *Protocol Mapping* section in Understanding DoS Protection.
- *weightValue*—Number relative to 100 in the range 100–500.

Mode DoS Protection Group Configuration

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pvc

Syntax To create a control PVC from Interface Configuration mode:

pvc *vcd vpi/vci* ilmi

no pvc *vcd*

To create a data PVC from Subinterface Configuration mode and access ATM VC Configuration mode:

pvc *vcd vpi/vci*

no pvc *vcd*

Release Information Command introduced in JunosE Release 7.1.0.

Description From Interface Configuration mode, creates a control PVC that supports ILMI services. To create a control PVC, you must specify the VCD, VPI, VCI, and the **ilmi** encapsulation type. The **no** version removes the specified control PVC from the router.

From Subinterface Configuration mode, creates a data PVC and accesses ATM VC Configuration mode, from which you can configure and modify individual PVC attributes one at a time. To create a data PVC, you must specify the VCD, VPI, and VCI. The **no** version removes the specified data PVC from the router.

Options

- *vcd*—Virtual circuit descriptor that is an identifier for the VC in other commands; number, in the range 1–2147483647
- *vpi*—Virtual path identifier for this PVC. The numeric range depends on the module capabilities and current configuration.
- *vci*—Virtual circuit identifier for this PVC. The numeric range depends on the module capabilities and current configuration. For control PVCs, the recommended VCI value is 16 for **ilmi** encapsulation and 5 for **qsaal** encapsulation. The VCI value cannot be 0.
- ilmi—Configures Integrated Local Management Interface encapsulation for a control PVC

Mode Interface Configuration, Subinterface Configuration

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CHAPTER 5

Q Commands

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qos-adaptive-mode

Syntax [no] qos-adaptive-mode

Release Information Command introduced in JunosE Release 7.2.0.

Description Enables ANCP to dynamically create QoS parameter instances associated with the ANCP downstream rate application. ANCP also determines the value the system uses when recalculating the QoS shaping rate. The values of the parameter instances track the bandwidth of the local loop that is communicated by ANCP. The **no** version disables QoS adaptive mode.

Mode Layer 2 Control Configuration

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qos-interface-parent

Syntax

In QoS Interface Set Configuration mode:

[no] qos-interface-parent *interfaceSupersetName*

In QoS Interface Superset Configuration mode:

[no] qos-interface-parent interface *supersetInterfaceType interfaceSpecifier*

In Interface Configuration mode:

[no] qos-interface-parent *interfaceSetName*

Release Information

Command introduced in JunosE Release 9.2.0.

Description

In QoS Interface Superset Configuration mode, assigns a parent interface for the interface superset. The parent interface can be an Ethernet major interface, an ATM major interface, or a LAG. The **no** version deletes the parent from the superset.

In QoS Interface Set Configuration mode, assigns a QoS interface superset as the parent for the interface set. The **no** version deletes the parent from the set.

In Interface Configuration mode, assigns a QoS interface set as the parent for the member interface. The **no** version deletes the parent from the interface.

Options

- *interfaceSupersetName*—Name of the QoS interface superset that is the parent of this interface set
- *supersetInterfaceType*—One of the following superset interface types: fastEthernet, gigabitEthernet, tenGigabitEthernet, atm, or lag
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see "Interface Types and Specifiers" on page 5
- *interfaceSetName*—Name of the QoS interface set that is the parent of the interface

Mode

Interface Configuration, QoS Interface Set Configuration; QoS Interface Superset Configuration

Related Documentation

- Configuring Interface Sets for QoS
- Configuring Interface Supersets for QoS

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qos-interface-set

Syntax [no] qos-interface-set *interfaceSetName*

Release Information Command introduced in JunosE Release 9.2.0.

Description Configures a QoS interface set and enters QoS Interface Set Configuration mode. The **no** version deletes the interface set.

Options
- *interfaceSetName*—Name of the QoS interface set

Mode Global Configuration

Related Documentation
- Configuring Interface Sets for QoS

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qos-interface-superset

Syntax [no] qos-interface-superset *interfaceSupersetName*

Release Information Command introduced in JunosE Release 9.2.0.

Description Configures a QoS interface superset and enters QoS Interface Superset Configuration mode. The **no** version deletes the interface superset.

Options
- *interfaceSupersetName*—Name of the QoS interface superset

Mode Global Configuration

Related Documentation
- Configuring Interface Supersets for QoS

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qos-mode-port

Syntax [no] qos-mode-port [low-cdv | low-latency]

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures an ATM port for per-port queuing. The **no** version restores the default integrated mode, removing per-port queuing from the ATM port; in this state, shaping done by the SAR is controlled by ATM.

Options

- low-cdv—HRR scheduler and SAR scheduler operate in concert. The SAR runs with more buffering than in low-latency mode, shaping rates are driven by QoS profiles, VC backpressure is disabled, and lenient port backpressure is enabled.
- low-latency—Shaping done by the SAR is controlled by QoS. The HRR scheduler controls the traffic rate. The SAR runs with minimal buffering, VC backpressure is disabled, and aggressive port backpressure is enabled. This is the behavior enforced if you do not specify an option.

Mode Interface Configuration

Related Documentation

- Integrating the HRR Scheduler and SAR Scheduler
- Configuring Default Integrated Mode for ATM Interface
- Configuring Low-Latency Mode for Per-Port Queuing on ATM Interfaces
- Configuring Low-CDV Mode for Per-Port Queuing on ATM Interfaces
- Disabling Per-Port Queuing on ATM Interfaces

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qos-parameter

Syntax In Global Configuration, Interface Configuration, QoS Interface Set Configuration, and QoS Interface Superset Configuration modes:

qos-parameter *qosParameterInstanceName qosParameterInstanceValue*

no qos-parameter

In Profile Configuration mode:

qos-parameter *qosParameterInstanceName* [*qosParameterInstanceValue* | add *qosParameterAddValue* [initial-value *qosParameterInitialValue*]]

no qos-parameter *qosParameterInstanceName* [add]

Release Information Command introduced in JunosE Release 7.1.0.
add and **initial-value** keywords added in JunosE Release 7.2.0.
Profile Configuration mode added in JunosE Release 7.2.0.
QoS Interface Set Configuration and QoS Interface Superset Configuration modes added in JunosE Release 9.2.0.

Description In Global Configuration mode, creates a QoS parameter instance and assigns a value to the parameter. A global parameter instance is typically used to provide a global default for a parameter value. The **no** version deletes the parameter instance.

In Interface Configuration mode, creates a parameter instance, assigns a value to the parameter, and attaches the parameter instance to the interface. The **no** version detaches the parameter instance from the interface.

In Profile Configuration mode, creates a parameter instance command in a profile for use with Service Manager. When the service is activated, the parameter instances are created for the subscriber interface. The **no** version removes the parameter instance command from the profile.

In QoS Interface Set Configuration mode, creates a parameter instance, assigns a value to the parameter, and attaches the parameter instance to a QoS interface set. The **no** version detaches the parameter instance from the interface set.

In QoS Interface Superset Configuration mode, creates a parameter instance, assigns a value to the parameter, and attaches the parameter instance to a QoS interface superset. The **no** version detaches the parameter instance from the interface superset.

Options

- *qosParameterInstanceName*—Name of the QoS parameter instance
- *qosParameterInstanceValue*—Number of the rate for the parameter instance; the default value is the minimum value defined in the parameter definition

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- *qosParameterAddValue*—Number of the rate that is added to an existing parameter instance
- *qosParameterInitialValue*—Number of the initial rate of a newly created parameter instance

Mode Global Configuration, Interface Configuration, Profile Configuration, QoS Interface Set Configuration, QoS Interface Superset Configuration

Related Documentation
- Creating Parameter Instances
- Creating a QoS Parameter on an Interface Superset or Interface Set

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qos-parameter-define

Syntax [no] qos-parameter-define *qosParameterDefinitionName*
[application *applicationName*] [hierarchical]

Release Information Command introduced in JunosE Release 7.1.0.

Description Specifies a QoS parameter name and accesses QoS Parameter Definition mode. The **no** version deletes the QoS parameter definition.

Options

- *qosParameterDefinitionName*—Name of the parameter definition
- *applicationName*—Name of the application that you want to associate with the parameter definition:
  - ip-multicast—Specifies the IP multicast bandwidth adjustment application. You must also specify the **hierarchical** keyword when you specify this application.
  - qos-byte-adjustment—Specifies the cell byte-adjustment application, which enables you to adjust the shaping rate to account for different layer 2 encapsulations in ADSL configurations. If you have configured the QoS shaping mode as cell, the system adjusts the shaping rate to account for the ATM cell pad, header, and trailer.
  - qos-frame-byte-adjustment—Specifies the frame byte-adjustment application, which enables you to shape traffic based on frames for VDSL configurations. If you have configured the QoS shaping mode as frame, the system adjusts the shaping rate based on bytes within frames.
  - qos-cell-mode—Specifies the QoS cell mode application, which enables you to configure the operational shaping mode (frame or cell) for ATM, Gigabit Ethernet, or 10-Gigabit Ethernet interfaces.
  - qos-downstream-rate—Specifies the QoS downstream rate application, which enables you to adjust the downstream rate of VLANs and ATM VCs based on parameter instances that are created dynamically by ANCP or AAA. The values of the parameter instances track the bandwidth of the local loop that are communicated by ANCP.
- hierarchical—Specifies that the parameter instance is hierarchical. Hierarchical parameters have explicit instances that are associated with the logical interfaces of instance-interface types, as well as implicit instances that are associated with the logical interfaces of controlled-interface types. The system computes the values of an implicit instance as the sum of the values of the explicit instances stacked above the implicit instance.

Mode Global Configuration

Related Documentation

- Configuring a Basic Parameter Definition for QoS Administrators
- Configuring a Parameter Definition to Calculate Hierarchical Instances
- Configuring a Parameter Definition for IP Multicast Bandwidth Adjustment

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- Configuring a Parameter Definition to Shape Ethernet Traffic Using Cell Mode
- Configuring a Parameter Definition to Adjust Cell Shaping Rates for ADSL Traffic
- Configuring a Parameter Definition to Adjust Frame Shaping Rates for VDSL Traffic
- Configuring a Parameter Definition for QoS Downstream Rate

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qos-port-type-profile

Syntax qos-port-type-profile *typeOfInterface* qos-profile *qosProfileName*

Release Information Command introduced before JunosE Release 7.1.0.
lag keyword added in JunosE Release 8.1.0.

Description Associates a QoS profile with all the ports of a given interface type. There is no **no** version.

Options
- *typeOfInterface*—One of the following interface types to be associated with the QoS port-type profile; atm, ethernet, lag, serial, server-port
- *qosProfileName*—Name of the QoS profile

Mode Global Configuration

Related Documentation
- Attaching a QoS Profile to an Interface
- Enabling Default Subscriber Load Balancing for 802.3ad Link Aggregation Groups

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qos-profile

Syntax [no] qos-profile *qosProfileName*

Release Information Command introduced before JunosE Release 7.1.0.
Profile Configuration mode added in JunosE Release 7.2.0.
QoS Interface Set Configuration and QoS Interface Superset Configuration modes added in JunosE Release 9.2.0.

Description In Global Configuration mode, creates a QoS profile on the router and enters QoS Profile Configuration mode. The **no** version deletes the QoS profile.

In Interface Configuration mode, attaches a QoS profile to an interface. The **no** version detaches the QoS profile from the interface.

In Profile Configuration mode, adds a QoS profile command for use with Service Manager. When the service is activated, the QoS profile is created and attached to the subscriber interface. The **no** version removes the QoS profile from the profile.

In QoS Interface Set Configuration mode, attaches a QoS profile to the QoS interface set. The **no** version detaches the QoS profile from the interface set.

In QoS Interface Superset Configuration mode, attaches a QoS profile to the QoS interface superset. The **no** version detaches the QoS profile from the interface superset.

Options
- *qosProfileName*—Name of the QoS profile

Mode Global Configuration, Interface Configuration, Profile Configuration, QoS Interface Set Configuration, QoS Interface Superset Configuration

Related Documentation
- Configuring a QoS Profile
- Attaching a QoS Profile to an Interface
- Configuring Shadow Nodes
- Configuring a Basic Parameter Definition for QoS Administrators
- Creating Parameter Instances
- Attaching a QoS Profile to an Interface Superset or an Interface Set
- Creating a QoS Parameter on an Interface Superset or Interface Set

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qos-shaping-mode

Syntax [no] qos-shaping-mode [cell | frame]

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies either cell-based or frame-based traffic shaping for ATM, Gigabit Ethernet, or 10-Gigabit Ethernet interfaces. The shaping mode is configured for a major interface and affects scheduling for all nodes and queues stacked above the interface. In cell shaping mode, queues and nodes are scheduled as if they were ATM cells. All newly configured ports use the shaping mode from port 0; frame is the default shaping mode for port 0. If you do not specify an option, the command restores the default, frame. The **no** version restores the default, frame.

Options
- cell—Shapes traffic based on the number of bytes in a cell, and accounts for ATM cell encapsulation and padding overhead
- frame—Shapes traffic based on the number of bytes in a frame, without considering cell encapsulation and padding overhead; the default shaping mode for port 0

Mode Interface Configuration

Related Documentation
- Configuring the QoS Shaping Mode for ATM Interfaces
- Configuring the QoS Shaping Mode for Ethernet Interfaces

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qos-shared-shaper-control

Syntax [no] qos-shared-shaper-control

Release Information Command introduced in JunosE Release 8.0.0.

Description Enables the user-configurable variables in the QoS simple shared shaper algorithm and enters QoS Shared Shaper Control Configuration mode. The **no** version disables the user-configurable variables in the QoS simple shared shaper algorithm.

Mode Global Configuration

Related Documentation

- Configuring Simple Shared Shaper Algorithm Variables

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query-interval

Syntax query-interval *queryTime*

no query-interval

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies how often the router sends PIM router query messages to remote neighbors. The **no** version specifies the default time interval, 30 seconds.

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.

Options

- *queryTime*—Interval, in the range 0–210 seconds, at which the router sends PIM router query messages from this interface

Mode Interface Configuration

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queue

Syntax [no] { *typeOfInterface* | set | superset } queue traffic-class *trafficClassName* [queue-profile *queueProfileName* [scheduler-profile *schedProfileName*] | scheduler-profile *schedProfileName* [queue-profile *queueProfileName*]] [drop-profile *dropProfileName*] [statistics-profile *statisticsProfileName*]

Release Information Command introduced before JunosE Release 7.1.0.
svlan keyword added in JunosE Release 7.1.0.
set and **superset** keywords added in JunosE Release 9.2.0.

Description Specifies that a queue traffic class be configured for the selected interface type. The **no** version removes this rule from the QoS profile.

Options

- *typeOfInterface*—Interface type for queue traffic classes to be configured; atm, atm-vp, atm-vc, bridge, ethernet, fr-vc, ip, ipv6, ip-tunnel, l2tp-session, l2tp-tunnel, lsp, serial, server-port, svlan, vlan
- set—Configures a queue for an interface set
- superset—Configures a queue for an interface superset
- *trafficClassName*—Name of the traffic class
- *queueProfileName*—Name of the queue profile
- *schedProfileName*—Name of the scheduler profile
- *dropProfileName*—Name of the drop profile
- *statisticsProfileName*—Name of the statistics profile

Mode QoS Profile Configuration

Related Documentation

- Configuring a QoS Profile
- Configuring Shadow Nodes
- Configuring a Basic Parameter Definition for QoS Administrators
- Configuring Rate Statistics
- Configuring Event Statistics
- Attaching a QoS Profile to an Interface Superset or an Interface Set

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queue-profile

Syntax [no] queue-profile *queueProfileName*

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures a queue profile. The **no** version removes the named queue profile.

Options
- *queueProfileName*—Name of the queue profile

Mode Global Configuration

Related Documentation
- Configuring Queue Profiles to Manage Buffers and Thresholds

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CHAPTER 6

R Commands

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radius accounting server

Syntax [no] radius accounting server *ipAddress*

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the IP address of a RADIUS accounting server and puts the E Series router into RADIUS Configuration mode. The **no** version deletes the instance of the RADIUS server.

Options
- *ipAddress*—IP address of the server

Mode Global Configuration

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radius acct-session-id-format

Syntax radius acct-session-id-format { decimal | description }

no radius acct-session-id-format

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the RADIUS client's use of a specific format for RADIUS attribute 44, Acct-Session-Id. The **no** version negates the Acct-Session-Id format.

NOTE: For subscribers connected over the link aggregation group (LAG) interface in DHCP standalone authenticate mode, the LAG interface ID is used as the interface identifier.

Options

- decimal—Configures the RADIUS client to use a decimal format
- description—Configures the RADIUS client to use the generic format: erx *interfaceType interfaceSpecifier:hexNumber*
  - *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
  - *hexNumber*—Hexadecimal number identifying the session

Mode Global Configuration

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radius algorithm

Syntax radius algorithm { direct | round-robin }

no radius algorithm

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the algorithm that the RADIUS client uses to contact the RADIUS server. The **no** version restores the default value, direct.

Options
- direct—Contacts the first AAA server on the list for each user, the second AAA server if the first one fails, and so on
- round-robin—Contacts the first AAA server for the first user, the second AAA server for the second user, and so on

Mode Global Configuration

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radius authentication server

Syntax [no] radius authentication server *ipAddress*

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the IP address of a RADIUS authentication server and puts the E Series router into RADIUS Configuration mode. The **no** version deletes the instance of the RADIUS server.

Options
- *ipAddress*—IP address of the server

Mode Global Configuration

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radius calling-station-delimiter

Syntax radius calling-station-delimiter *delimiter*

no radius calling-station-delimiter

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the delimiter for DSL PPP users for RADIUS attribute 31, Calling-Station-Id. The **no** version removes the delimiter.

Options

- *delimiter*—Special character to set off items in the Calling-Station-Id's definition (for example, # or %)

Mode Global Configuration

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radius calling-station-format

Syntax radius calling-station-format { delimited | fixed-format [stacked] | fixed-format-adapter-embedded [stacked] | fixed-format-adapter-new-field [stacked] }

no radius calling-station-format

Release Information Command introduced before JunosE Release 7.1.0.
fixed-format-adapter-embedded and **fixed-format-adapter-new-field** keywords added in JunosE Release 8.1.0.
stacked keyword added in JunosE Release 9.3.0.

Description On a virtual router, specifies the format of RADIUS attribute 31, Calling-Station-Id, when the PPP user is terminated at the non-LNS E Series router. Depending on the keyword you use, the virtual router uses the specified format for each interface type, replacing variables in the format with their actual values for your configuration. The **no** version restores the default Calling-Station-Id format, **delimited**.

NOTE:

- Attribute 31, Calling-Station-Id, is used with Attribute 30, Called-Station-Id, in a standard way when the router is the LNS and the LAC is a dial-up LAC (not an E Series router). When the LNS receives the Calling-Station-Id and Called-Station-Id AVPs, the router includes the values as they are, with no format changes in the RADIUS messages.
- For subscribers connected over the LAG interface in DHCP standalone authenticate mode, the **radius override calling-station-id remote-circuit-id** command enables RADIUS to use the PPPoE remote circuit ID for the Calling-Station-Id attribute. By default, RADIUS uses a delimited format for the interface description. You cannot use this command to change the value of the Calling-Station-Id attribute.

Options

- delimited—Specifies that the RADIUS client uses the delimited format:
  - Format for ATM interfaces:
    delimiter systemName delimiter interfaceDescription delimiter VPI delimiter VCI delimiter
  - Format for Ethernet interfaces:
    delimiter systemName delimiter interfaceDescription delimiter VLAN

  Where *interfaceDescription* is one of the following items:

  - *port name*—The default setting
  - *VP description*—Appears if you use the **atm vp-description** command to assign a text description to an individual VP on an ATM interface

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  - *VC description*—Appears if you use the **atm atm1483 description** command to assign a text description to VCs on an ATM 1483 subinterface and you use the **atm1483 export-subinterface-description** command to enable sending of VC interface descriptors to AAA

- fixed-format—Specifies that the RADIUS client uses a fixed format of up to 15 characters consisting of all ASCII fields:
  - Format for ATM interfaces:
    systemName (up to 4 bytes) *slot* (2 bytes) *port* (1 byte) *VPI* (3 bytes) *VCI* (5 bytes)
  - Format for Ethernet interfaces:
    systemName (up to 4 bytes) *slot* (2 bytes) *port* (1 byte) *VLAN* (8 bytes)
  - Format for serial interfaces:
    systemName (up to 4 bytes) *slot* (2 bytes) *port* (1 byte) 0 (8 bytes)
  - In the case of PPP terminated from LNS, the Calling-Station-Id attribute value is based on the received L2TP calling number AVP
- fixed-format-adapter-embedded—Specifies that the RADIUS client uses a fixed format of up to 15 characters consisting of all ASCII fields with a 1-byte *slot* field, 1-byte *adapter* field, and 1-byte *port* field:
  - Format for ATM interfaces:
    systemName (up to 4 bytes) *slot* (1 byte) *adapter* (1 byte) *port* (1 byte) *VPI* (3 bytes) *VCI* (5 bytes)
  - Format for Ethernet interfaces:
    systemName (up to 4 bytes) *slot* (1 byte) *adapter* (1 byte) *port* (1 byte) *VLAN* (8 bytes)
  - Format for serial interfaces:
    systemName (up to 4 bytes) *slot* (1 byte) *adapter* (1 byte) *port* (1 byte) 0 (8 bytes)
  - For E120 routers and E320 routers, *adapter* is the number of the bay in which the I/O adapter (IOA) resides, either 0 (representing the right IOA bay on the E120 router and the upper IOA bay on the E320 router) or 1 (representing the left IOA bay on the E120 router or the lower IOA bay on the E320 router). For ERX7xx models, ERX14xx models, and ERX310 routers, *adapter* is always shown as 0.
  - Slot numbers 0 through 16 are shown as ASCII characters in the 1-byte slot field according to the following translation:

Slot Number	ASCII Character	Slot Number	ASCII Character
0	0	9	9
1	1	10	A
2	2	11	B

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Slot Number	ASCII Character	Slot Number	ASCII Character
3	3	12	C
4	4	13	D
5	5	14	E
6	6	15	F
7	7	16	G
8	8	–	–

For example, slot 16 is shown as the ASCII character uppercase G.

- fixed-format-adapter-new-field—Specifies that the RADIUS client uses a fixed format of up to 17 characters consisting of all ASCII fields with a 2-byte *slot* field, 1-byte *adapter* field, and 2-byte *port* field:
  - Format for ATM interfaces:
    systemName (up to 4 bytes) *slot* (2 bytes) *adapter* (1 byte) *port* (2 bytes) *VPI* (3 bytes) *VCI* (5 bytes)
  - Format for Ethernet interfaces:
    systemName (up to 4 bytes) *slot* (2 bytes) *adapter* (1 byte) *port* (2 bytes) *VLAN* (8 bytes)
  - Format for serial interfaces:
    systemName (up to 4 bytes) *slot* (2 bytes) *adapter* (1 byte) *port* (2 bytes) 0 (8 bytes)
  - For E120 routers and E320 routers, *adapter* is the number of the bay in which the IOA resides, either 0 or 1. For ERX7xx models, ERX14xx models, and ERX310 routers, *adapter* is always shown as 0.
  - Slot numbers 0 through 16 are shown as integers in the 2-byte *slot* field.

NOTE: **You must use this field when you configure the format of the Calling-Station-ID attribute on routers that have line modules that support more than seven physical ports.**

- stacked—Includes a 4-byte stacked VLAN (S-VLAN ID) for Ethernet interfaces when the RADIUS client uses the fixed-format, fixed-format-adapter-embedded, or fixed-format-adapter-new-field format; by default, these formats do not include the S-VLAN ID unless you specify the optional **stacked** keyword; If you include the stacked keyword, the S-VLAN ID is displayed in decimal format in the range 0–4095
  - Format for Ethernet interfaces that use **fixed-format**:

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systemName (up to 4 bytes) *slot* (2 bytes) *port* (1 byte) *S-VLAN* (4 bytes) *VLAN* (4 bytes)

- Format for Ethernet interfaces that use **fixed-format-adapter-embedded**: *systemName* (up to 4 bytes) *slot* (1 byte) *adapter* (1 byte) *port* (1 byte) *S-VLAN* (4 bytes) *VLAN* (4 bytes)
- Format for Ethernet interfaces that use **fixed-format-adapter-new-field**: *systemName* (up to 4 bytes) *slot* (2 bytes) *adapter* (1 byte) *port* (2 bytes) *S-VLAN* (4 bytes) *VLAN* (4 bytes)

NOTE:

- The use of the **stacked** keyword is not supported for VLAN subinterfaces based on agent-circuit-identifier information, otherwise known as ACI VLANs. When you issue the **radius calling-station-format fixed-format stacked**, **radius calling-station-format fixed-format-adapter-embedded stacked**, or **radius calling-station-format fixed-format-adapter-new-field stacked** command for an ACI VLAN, the values that appear in the 4-byte S-VLAN ID and 4-byte VLAN ID fields are incorrect.
- The S-VLAN ID field in the Calling-Station-Id [31] attribute is set to 0 (zero) under the following conditions:
  - You do not specify the optional **stacked** keyword.
  - You specify the optional **stacked** keyword but the Ethernet interface does not have an S-VLAN ID.

Mode Global Configuration

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radius client

Syntax no radius client

Release Information Command introduced before JunosE Release 7.1.0.

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

Mode Global Configuration

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radius connect-info-format

Syntax radius connect-info-format { l2tp-connect-speed | l2tp-connect-speed-rx-when-equal }

no radius connect-info-format

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the format and enables the generation of RADIUS attribute 77, Connect-Info, on the LNS. The format uses the received L2TP connect-speed AVPs that the LAC sends to the LNS. The **no** version restores the default, in which the LNS does not generate the Connect-Info attribute.

Options

- l2tp-connect-speed—Specifies that the Connect-Info attribute include only the RX speed when the RX speed is different from the TX speed and is greater than zero.
- l2tp-connect-speed-rx-when-equal—Specifies that the Connect-Info attribute always include the RX speed when the speed is greater than zero.

Mode Global Configuration

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radius disconnect client

Syntax [no] radius disconnect client *ipAddress*

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures a RADIUS disconnect client and enters RADIUS Disconnect Configuration mode. The **no** version removes the RADIUS disconnect client.

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 **subscriber disconnect** command and the RADIUS dynamic-request server feature. The RADIUS Disconnect Configuration mode is also deprecated.

Options

- *ipAddress*—IP address of the RADIUS server that is acting as the disconnect client

Mode Global Configuration

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radius dsl-port-type

Syntax radius dsl-port-type { sdsl | adsl-cap | adsl-dmt | idsl | xdsl | virtual }

no radius dsl-port-type

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets RADIUS attribute 61, NAS-Port-Type, in RADIUS access request packets and accounting start and stop packets for ATM interfaces. The **no** version restores the default setting, xdsl.

NOTE:

- If the interface (port) is Ethernet, then it sets the attribute to Ethernet and disregards the parameter set with this command. If the interface (port) is DSL, then the attribute can have any value listed in the command and uses the value configured.
- For subscribers connected over the LAG interface in DHCP standalone authenticate mode, RADIUS calculates the value of the Nas-Port-Type attribute.

Options

- sdsl—Symmetric DSL
- adsl-cap—Asymmetric DSL, carrierless amplitude phase modulation
- adsl-dmt—Asymmetric DSL, discrete multitone
- idsl—ISDN DSL
- xdsl—DSL of unspecified type (default)
- virtual—Virtual

Mode Global Configuration

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radius dynamic-request server

Syntax [no] radius dynamic-request server *ipAddress*

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the IP address of a RADIUS dynamic-request server and puts the E Series router into RADIUS Configuration mode. The **no** version deletes the instance of the RADIUS server.

NOTE: The **radius dynamic-request server** command replaces the functionality of the **radius disconnect client** command.

The RADIUS Disconnect Configuration mode is deprecated. Use the **radius dynamic-request server** command to enter RADIUS Configuration mode and configure options formerly available in RADIUS Disconnect Configuration mode.

Options
- *ipAddress*—IP address of the server

Mode Global Configuration

Related Documentation
- Configuring RADIUS-Based Packet Mirroring

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radius ethernet-port-type

Syntax radius ethernet-port-type [virtual | ethernet]

no radius ethernet-port-type

Release Information Command introduced before JunosE Release 7.1.0.

Description Indicates to RADIUS which Ethernet port type to use in RADIUS attribute 61, NAS-Port-Type, for all Ethernet users on the E Series router. The **no** version restores the default, ethernet.

NOTE: For subscribers connected over the link aggregation group (LAG) interface in DHCP standalone authenticate mode, RADIUS calculates the value of the Nas-Port-Type attribute.

Options

- virtual—Sets RADIUS NAS-Port-Type to virtual
- ethernet—Sets RADIUS NAS-Port-Type to Ethernet

Mode Global Configuration

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radius icr-partition-accounting

Syntax radius icr-partition-accounting { enable | disable }

no radius icr-partition-accounting

Release Information Command introduced in JunosE Release 10.3.0.

Description Enables or disables sending of the ICR Partition-Accounting-On or Partition-Accounting-Off messages to the RADIUS servers. Both Partition-Accounting messages include the ICR-Partition-Id VSA and are sent to the RADIUS accounting server configured on the virtual router where the ICR partition is configured or the virtual router on which the ICR control interface is set up. The **no** version restores the default value, disable.

Options

- enable—Configures the RADIUS client to enable the use of Partition-Accounting-On and Partition-Accounting-Off messages. When this option is used, these messages are sent to the accounting server configured on the virtual router.
- disable— Configures the RADIUS client to disable the use of Partition-Accounting-On and Partition-Accounting-Off messages; this is the default setting. When this option is used, the Partition-Accounting messages are not sent to the accounting server configured on the virtual router.

Mode Global Configuration

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radius ignore

Syntax radius ignore *attributeName* { enable | disable }

no radius ignore *attributeName*

Release Information Command introduced before JunosE Release 7.1.0.
pppoe-max-session keyword added in JunosE Release 9.3.0.
ipv6-egress-policy-name and **ipv6-ingress-policy-name** attributes added in JunosE Release 13.0.0.

Description Ignores the specified attribute in RADIUS Access-Accept messages. All attributes are disabled by default except for Framed-Ip-Netmask and Max-Clients-Per-Interface (pppoe-max-session). The **no** version restores the default.

Options

- *attributeName*—One of the following RADIUS attributes:
  - atm-mbs—Mbs, VSA 26-17
  - atm-pcr—Pcr, VSA 26-15
  - atm-scr—Scr, VSA 26-16
  - atm-service-category—Service-Category, VSA 26-14
  - egress-policy-name—Egress-Policy-Name, VSA 26-11
  - ipv6-egress-policy-name—Ipv6-Egress-Policy-Name, VSA 26-107; when you ignore this attribute, the policy manager will not apply the policy returned from the RADIUS server to the subscriber interface; when you accept this attribute, the policy manager applies the policy returned from the RADIUS server to the subscriber interface
  - framed-ip-netmask—Framed-Ip-Netmask, attribute 9; when you ignore this attribute, the default subnet mask 255.255.255.255 is provided by AAA and used for Internet Protocol Control Protocol (IPCP) negotiations; when you enable this attribute, the router passes the IP address and the subnet mask specified by this attribute to the CPE during IPCP negotiations; ignoring the attribute guards against any breaks in the IPCP negotiation
  - ingress-policy-name—Ingress-Policy-Name, VSA 26-10
  - ipv6-ingress-policy-name—Ipv6-Ingress-Policy-Name, VSA 26-106; when you ignore this attribute, the policy manager will not apply the policy returned from the RADIUS server to the subscriber interface; when you accept this attribute, the policy manager applies the policy returned from the RADIUS server to the subscriber interface
  - virtual-router—Virtual-Router, VSA 26-1

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- If you configure the default virtual router as the authentication virtual router for the domain map using the **ip-router-name** command in Domain Map Configuration Mode and the Virtual-Router RADIUS VSA attribute [26-1] is returned from the RADIUS server in the Access-Accept message, the IPv4 virtual router context returned from the RADIUS server overrides the IPv4 virtual router context configured in the AAA domain map. If you configure a nondefault virtual router as the authentication virtual router for the AAA domain map and the Virtual-Router RADIUS VSA attribute [26-1] is returned from the RADIUS server in the Access-Accept message, the IPv4 virtual router context in the AAA domain map takes precedence over the IPv4 virtual router context returned from the RADIUS server.
- pppoe-max-session—Max-Clients-Per-Interface, VSA 26-143

- enable—Specifies the feature; this is the default setting for **framed-ip-netmask** and **pppoe-max-session**
- disable—Disables the feature; this is the default setting for all attributes except **framed-ip-netmask** and **pppoe-max-session**

Mode Global Configuration

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radius include

Syntax

radius include *attributeName*
{ access-request | acct-on | acct-off | acct-start | acct-stop } { enable | disable }

no radius include *attributeName*
{ access-request | acct-on | acct-off | acct-start | acct-stop }

Release Information

Command introduced before JunosE Release 7.1.0.
l2c-access-loop-parameters attribute added in JunosE Release 7.2.0.
l2cd attributes added in JunosE Release 9.0.0.
framed-interface-id and **framed-ipv6-prefix** attributes, and acct-stop support for **framed-ip-addr** attribute added in JunosE Release 9.0.0.
downstream-calculated-qos-rate and **upstream-calculated-qos-rate** attributes added in JunosE Release 9.1.0.
ipv6-accounting, **delegated-ipv6-prefix**, **framed-ipv6-pool**, **framed-ipv6-route**, **ipv6-local-interface**, **ipv6-nd-ra-prefix**, **ipv6-primary-dns**, **ipv6-secondary-dns**, and **ipv6-virtual-router** attributes added in JunosE Release 10.2.0.
icr-partition-id attribute added in JunosE Release 10.3.0.
framed-route attribute added in JunosE Release 11.3.0.
ipv6-egress-policy-name and **ipv6-ingress-policy-name** attributes added in JunosE Release 13.0.0.
dhcp-option82-circuitid and **dhcp-option82-remoteid** attributes added in JunosE Release 13.1.0.
qos-profile-name, ds-lite-tunnel-name, and **pcp-server-name** attributes added in JunosE Release 13.2.0.

Description

Configures the inclusion of RADIUS attributes in RADIUS messages. Not all attributes are available in all message types. The listed attributes are included by default except where noted. The **no** version restores the default.

Options

- *attributeName*—One of the following RADIUS attributes; not all attributes are available in all message types.

  Attributes available for Access-Request, Acct-Start, and Acct-Stop messages:

  - acct-multi-session-id—Includes RADIUS attribute 50, Acct-Multi-Session-Id
  - acct-tunnel-connection—Includes RADIUS attribute 68, Acct-Tunnel-Connection
  - ascend-num-in-multilink—Includes RADIUS attribute 188, Ascend-Num-In-Multilink
  - called-station-id—Includes RADIUS attribute 30, Called-Station-Id
  - calling-station-id—Includes RADIUS attribute 31, Calling-Station-Id
  - connect-info—Includes RADIUS attribute 77, Connect-Info
  - dhcp-options—Includes RADIUS attribute 26-55, DHCP-Options
  - dhcp-option82—Includes RADIUS attribute 26–159, DHCP-Option 82
  - dhcp-option82-circuitid—Includes RADIUS attribute 26–1, DHCP-Option 82

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- dhcp-option82-remoteid—Includes RADIUS attribute 26–2, DHCP-Option 82
- dhcp-gi-address—Includes RADIUS attribute 26-57, DHCP-GI-Address
- dhcp-mac-address—Includes RADIUS attribute 26-56, DHCP-MAC Address
- downstream-calculated-qos-rate—Excluded by default; includes RADIUS attribute 26-141, Downstream-Calculated-Qos-Rate
- framed-interface-id—Excluded by default; includes RADIUS attribute 96, Framed-Interface-Id, if an IPv6 interface ID is assigned to the subscriber
- framed-ip-addr—Includes RADIUS attribute 8, Framed-IP-Address, if an IP address is assigned to the subscriber
- framed-ipv6-prefix—Excluded by default; includes RADIUS attribute 97, Framed-Ipv6-Prefix, if at least one IPv6 prefix is assigned to the subscriber
- icr-partition-id—Excluded by default; includes RADIUS attribute 26-150, ICR-Partition-Id, which is a user-configured value of up to 128 characters
- interface-description—Excluded by default; includes RADIUS attribute 26-63, Interface-Desc; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- l2c-downstream-data—Excluded by default; includes RADIUS attribute 26-92, L2C-Down-Stream-Data
- l2c-upstream-data—Excluded by default; includes RADIUS attribute 26-93, L2C-Up-Stream-Data
- l2cd-acc-loop-cir-id—Excluded by default; includes RADIUS attribute 26-110, Acc-Loop-Cir-Id; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- l2cd-acc-aggr-cir-id-bib—Excluded by default; includes RADIUS attribute 26-111, Acc-Aggr-Cir-Id-Bin; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- l2cd-acc-aggr-cir-id-asc—Excluded by default; includes RADIUS attribute 26-112, Acc-Aggr-Cir-Id-Asc; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- l2cd-act-data-rate-up—Excluded by default; includes RADIUS attribute 26-113, Act-Data-Rate-Up; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- l2cd-act-data-rate-dn—Excluded by default; includes RADIUS attribute 26-114, Act-Data-Rate-Dn; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- l2cd-min-data-rate-up—Excluded by default; includes RADIUS attribute 26-115, Min-Data-Rate-Up; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- l2cd-min-data-rate-dn—Excluded by default; includes RADIUS attribute 26-116, Min-Data-Rate-Dn; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages

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- l2cd-att-data-rate-up—Excluded by default; includes RADIUS attribute 26-117, Att-Data-Rate-Up; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- l2cd-att-data-rate-dn—Excluded by default; includes RADIUS attribute 26-118, Att-Data-Rate-Dn; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- l2cd-max-data-rate-up—Excluded by default; includes RADIUS attribute 26-119, Max-Data-Rate-Up; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- l2cd-max-data-rate-dn—Excluded by default; includes RADIUS attribute 26-120, Max-Data-Rate-Dn; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- l2cd-min-lp-data-rate-up—Excluded by default; includes RADIUS attribute 26-121, Min-LP-Data-Rate-Up; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- l2cd-min-lp-data-rate-dn—Excluded by default; includes RADIUS attribute 26-122, Min-LP-Data-Rate-Dn; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- l2cd-max-interlv-delay-up—Excluded by default; includes RADIUS attribute 26-123, Max-Interlv-Delay-Up; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- l2cd-act-interlv-delay-up—Excluded by default; includes RADIUS attribute 26-124, Act-Interlv-Delay-Up; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- l2cd-max-interlv-delay-dn—Excluded by default; includes RADIUS attribute 26-125, Max-Interlv-Delay-Dn; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- l2cd-act-interlv-delay-dn—Excluded by default; includes RADIUS attribute 26-126, Act-Interlv-Delay-Dn; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- l2cd-dsl-line-state—Excluded by default; includes RADIUS attribute 26-127, DSL-Line-State; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- l2cd-dsl-type—Excluded by default; includes RADIUS attribute 26-128, DSL-Type; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- mlppp-bundle-name—Excluded by default; includes RADIUS attribute 26-62, MLPPP-Bundle-Name; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- nas-port—Includes RADIUS attribute 5, NAS-Port
- nas-port-id—Includes RADIUS attribute 87, NAS-Port-Id

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NOTE: For subscribers connected over the link aggregation group (LAG) interface in DHCP standalone authenticate mode, RADIUS uses the LAG interface ID for the Nas-Port-Id attribute.

- nas-port-type—Includes RADIUS attribute 61, NAS-Port-Type

NOTE: For subscribers connected over the LAG interface in DHCP standalone authenticate mode, RADIUS calculates the value of the Nas-Port-Type attribute.

- pppoe-description—Includes RADIUS attribute 26-24, Pppoe-Description
- profile-service-description—Includes RADIUS attribute 26-53, Service-Description
- tunnel-client-auth-id—Includes RADIUS attribute 90, Tunnel-Client-Auth-Id
- tunnel-client-endpoint—Includes RADIUS attribute 66, Tunnel-Client-Endpoint
- tunnel-interface-id—Excluded by default; includes RADIUS attribute 26-44, Tunnel-Interface-ID
- tunnel-medium-type—Includes RADIUS attribute 65, Tunnel-Medium-Type
- tunnel-server-attributes—Excluded by default; includes all supported tunnel server attributes; that is, the attributes of the tunnel client when PPP is terminated at the LNS on the router
- tunnel-server-auth-id—Includes RADIUS attribute 91, Tunnel-Server-Auth-Id
- tunnel-server-endpoint—Includes RADIUS attribute 67, Tunnel-Server-Endpoint
- tunnel-type—Includes RADIUS attribute 64, Tunnel-Type
- upstream-calculated-qos-rate—Excluded by default; includes RADIUS attribute 26-142, Upstream-Calculated-Qos-Rate

Attributes available for Access-Request messages only:

- access-loop-parameters—Excluded by default; includes RADIUS attribute 26-81, L2c-Information

Attributes available for Acct-Start and Acct-Stop messages only:

- acct-link-count—Includes RADIUS attribute 51, Acct-Link-Count
- class—Includes RADIUS attribute 25, Class
- ds-lite-tunnel-name —Excluded by default; includes RADIUS attribute 144, DS-Lite-Tunnel-Name; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- egress-policy-name—Includes RADIUS attribute 26-11, Egress-Policy-Name
- framed-compression—Includes RADIUS attribute 13, Framed-Compression

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- framed-ip-netmask—Includes RADIUS attribute 9, Framed-IP-Netmask
- framed-route—Excluded by default; includes RADIUS attribute 22, Framed-Route
- ingress-policy-name—Includes RADIUS attribute 26-10, Ingress-Policy-Name
- tunnel-assignment-id—Includes RADIUS attribute 82, Tunnel-Assignment-Id
- tunnel-preference—Includes RADIUS attribute 83, Tunnel-Preference
- ipv6-ingress-policy-name—Includes RADIUS attribute 26-106, Ipv6-Ingress-Policy-Name; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- ipv6-egress-policy-name—Includes RADIUS attribute 26-107, Ipv6-Egress-Policy-Name; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- pcp-server-name—Excluded by default; includes RADIUS attribute 26-165, PCP-Server-Name; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages
- qos-profile-name—Excluded by default; includes RADIUS attribute 26-26, QoS-Profile-Name; attribute automatically included in Interim-Acct messages when included in Acct-Stop messages

NOTE:

- The QoS profile names configured through the SRC software and CLI are not included in the RADIUS accounting messages. Only the profile name received from the RADIUS server in the Access-Accept messages is included in the RADIUS accounting messages.
- The QoS profile name configured locally is not sent in the authentication Access-Request messages.
- The QoS profile name returned by the RADIUS server is sent in the subsequent RADIUS accounting messages even after the QoS profile name configured through RADIUS is overridden with the QoS profile name configured through the CLI; this is a limitation.

Attributes available for Acct-Stop messages only:

- delegated-ipv6-prefix—Excluded by default; includes RADIUS attribute 123, Delegated-Ipv6-Prefix
  - The attribute value received from the RADIUS server in the Access-Accept message is used in the accounting messages
  - When prefix delegation occurs, an immediate-update (if enabled) message, which contains the delegated prefix information, is sent to the RADIUS server
  - When the prefix to be delegated to clients is obtained from the IPv6 local address server and not the RADIUS server and the **aaa dhcpv6-delegated-prefix delegated-ipv6-prefix** command is configured, the delegated prefix is sent to the

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RADIUS server in this attribute in the immediate accounting, Acct-Stop, or Interim-Acct messages

- When the prefix to be delegated to clients is allocated from the IPv6 local address server and the **aaa dhcpv6-delegated-prefix delegated-ipv6-prefix** command is not configured, the delegated prefix is sent to the RADIUS server in the Framed-Ipv6-Prefix attribute in the immediate accounting, Acct-Stop, or Interim-Acct messages
- For static interfaces, although the prefix configured using the CLI command is used for DHCPv6 Prefix Delegation instead of the value returned by the RADIUS server, the immediate accounting, Acct-Stop, or Interim-Acct messages contain the prefix returned from the RADIUS server
- If this attribute is not returned from the RADIUS server, the immediate accounting, Acct-Stop, or Interim-Acct messages do not report this attribute

- framed-ipv6-pool—Excluded by default; includes RADIUS attribute 100, Framed-IPv6-Pool; the attribute value received from the RADIUS server in the Access-Accept message is used in the accounting messages; if this attribute is configured in the AAA domain map using the CLI and is not returned from RADIUS server, the Acct-Start, Acct-Stop, or Interim-Acct messages report the value configured in the domain map
- framed-ipv6-route—Excluded by default; includes RADIUS attribute 99, Framed-IPv6-Route; the attribute value received from the RADIUS server in the Access-Accept message is used in the accounting messages; when this attribute is not returned from the RADIUS server in the Access-Accept message, the immediate accounting, Acct-Stop, or Interim-Acct messages do not report this attribute
- input-gigapkts—Includes RADIUS attribute 26-35, Acct-Input-Gigapackets
- input-gigawords—Includes RADIUS attribute 52, Acct-Input-Gigawords
- ipv6-accounting—Excluded by default; automatically included in Interim-Acct messages when included in Acct-Stop messages; includes the following RADIUS attributes:
  - IPv6-Acct-Input-Octets [26-151]
  - IPv6-Acct-Output-Octets [26-152]
  - IPv6-Acct-Input-Packets [26-153]
  - IPv6-Acct-Output-Packets [26-154]
  - IPv6-Acct-Input-Gigawords [26-155]
  - IPv6-Acct-Output-Gigawords [26-156]
- ipv6-local-interface—Excluded by default; includes RADIUS attribute 26-46, Ipv6-Local-Interface; the attribute value received from the RADIUS server in the Access-Accept message is used in the accounting messages; if IPv6 local interface is configured in the AAA domain map and is not returned from the RADIUS server, the Acct-Start, Acct-Stop, or Interim-Acct messages report the value configured in the domain map

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- ipv6-nd-ra-prefix—Excluded by default; includes RADIUS attribute 26-129, Ipv6-NdRa-Prefix; the attribute value received from the RADIUS server in the Access-Accept message is included in the accounting messages; for dynamic interfaces, if the Ipv6-NdRa-Prefix attribute is configured in the profile and is not returned from RADIUS server, this attribute is not included in the Acct-Start, Acct-Stop, and Interim-Acct messages

NOTE: When you attempt to configure the Ipv6-NdRa-Prefix attribute using the dynamic configuration manager (DCM) profile, the prefix is not successfully configured and the subscriber does not come up. In this scenario, the RADIUS server rejects the authentication request from the subscriber and records an error message stating that address allocation failed. However, if you attempt to configure the Ipv6-NdRa-Prefix attribute using the RADIUS profile, the prefix is correctly configured and the subscriber comes up successfully. This behavior is expected when the DCM profile is used to configure the Ipv6-NdRa-Prefix attribute.

This scenario occurs when router advertisements are enabled in the DCM profile and the RADIUS server returns only the Framed-Interface-Id attribute. Because the AAA server requires one of the following attributes to authenticate IPv6 subscribers, and none of these attributes are returned from the RADIUS server, the logging in of subscribers fails:

- Ipv6-NdRa-Prefix (VSA 26-129)
- Framed-IPv6-Prefix (RADIUS IETF attribute 97)
- Framed-IPv6-Route (RADIUS IETF attribute 99)
- Framed-IPv6-Pool (RADIUS IETF attribute 100)
- Delegated-IPv6-Prefix (RADIUS IETF attribute 123)

- ipv6-primary-dns—Excluded by default; includes RADIUS attribute 26-47, Ipv6-Primary-DNS; the attribute value received from the RADIUS server in the Access-Accept message is used in the accounting messages; if the IPv6 primary DNS server is configured in the AAA domain map and is not returned from the RADIUS server, the Acct-Start, Acct-Stop, or Interim-Acct messages report the value configured in the AAA domain map
- ipv6-secondary-dns—Excluded by default; includes RADIUS attribute 26-48, Ipv6-Secondary-DNS; the attribute value received from the RADIUS server in the Access-Accept message is used in the accounting messages; if the IPv6 secondary DNS server is configured in the AAA domain map and is not returned from the RADIUS server, the Acct-Start, Acct-Stop, or Interim-Acct messages report the value configured in the AAA domain map
- ipv6-virtual-router—Excluded by default; includes RADIUS attribute 26-45, Ipv6-Virtual-Router

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- The attribute value received from the RADIUS server in the Access-Accept message is used in the accounting messages
- If the IPv6 virtual router is configured in the AAA domain map and is not returned from the RADIUS server, the Acct-Start, Acct-Stop, or Interim-Acct messages report the value configured in the domain map
- If IPv6 virtual router is not configured in the AAA domain map and is not returned from the RADIUS server, it is not included in the Acct-Start message because the value is not yet known
- If the IPv6 virtual router context is configured from the profile, it is reported in the immediate-update message for DHCPv6 prefix delegation
- If you configure the default virtual router as the authentication virtual router for the domain map using the **ipv6-router-name** command in Domain Map Configuration Mode and the IPv6-Virtual-Router RADIUS VSA attribute [26-45] is returned from the RADIUS server in the Access-Accept message, the IPv6 virtual router context returned from the RADIUS server overrides the IPv6 virtual router context configured in the AAA domain map. If you configure a nondefault virtual router as the authentication virtual router for the AAA domain map and the IPv6-Virtual-Router RADIUS VSA attribute [26-45] is returned from the RADIUS server in the Access-Accept message, the IPv6 virtual router context in the AAA domain map takes precedence over the IPv6 virtual router context returned from the RADIUS server.

- l2tp-ppp-disconnect-cause—Includes RADIUS attribute 26-51, Disconnect-Cause
- output-gigapkts—Includes RADIUS attribute 26-36, Acct-Output-Gigapackets
- output-gigawords—Includes RADIUS attribute 53, Acct-Output-Gigawords

Attributes available for Access-Request, Acct-Start, Acct-Stop, Acct-On, and Acct-Off messages:

- nas-identifier—Includes RADIUS attribute 32, NAS-Identifier

Attributes available for Access-Request, Acct-On, and Acct-Off messages:

- acct-session-id—Includes RADIUS attribute 44, Acct-Session-Id; can be optionally included in the change-of-authorization (COA) message from the RADIUS server or in the user login request if the packet mirroring operation is required; the Acct-Session-Id VSA is used:
  - In the RADIUS-initiated COA message to start the mirroring session when the user is already logged in
  - As a trigger in user-initiated mirroring to identify the user whose traffic is to be mirrored

Attributes available for Acct-Start, Acct-Stop, Acct-On, and Acct-Off messages:

- event-timestamp—Includes RADIUS attribute 55, Event-Timestamp

Attributes available for Acct-On and Acct-Off messages only:

- acct-authentic—Includes RADIUS attribute 45, Acct-Authentic

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- acct-delay-time—Includes RADIUS attribute 41, Acct-Delay-Time

Attributes available for Acct-Off messages only:

- acct-terminate-cause—Includes RADIUS attribute 49, Acct-Terminate-Cause

- access-request—Specifies RADIUS Access-Request messages
- acct-on—Specifies RADIUS Acct-On messages
- acct-off—Specifies RADIUS Acct-Off messages
- acct-start—Specifies RADIUS Acct-Start messages
- acct-stop—Specifies RADIUS Acct-Stop messages
- enable—Enables attribute inclusion
- disable—Disables attribute inclusion; the attribute is excluded

Mode Global Configuration

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radius include dsl-forum-attributes

Syntax radius include dsl-forum-attributes
{ access-request | acct-start | acct-stop } { enable | disable }

no radius include dsl-forum-attributes { access-request | acct-start | acct-stop }

Release Information Command introduced in JunosE Release 7.3.0.

Description Enables the inclusion of a set of DSL Forum vendor-specific attributes (VSAs) in Access-Request, Acct-Start, or Acct-Stop messages that the router sends to RADIUS. If you specify the Acct-Stop message, the router also includes the DSL Forum VSAs in outgoing RADIUS Interim-Acct messages. The **no** version restores the default behavior, which excludes the DSL Forum VSAs from these outgoing RADIUS messages.

If you enable the inclusion of DSL Forum VSAs in RADIUS messages, the router includes all of the following DSL Forum VSAs in the specified message type, provided that the VSA is available in the information that the router receives from the DSLAM.

Agent-Circuit-Id [26-1]	Maximum-Data-Rate-Downstream [26-136]
Agent-Remote-Id [26-2]	Minimum-Data-Rate-Upstream-Low-Power [26-137]
Actual-Data-Rate-Upstream [26-129]	Minimum-Data-Rate-Downstream-Low-Power [26-138]
Actual-Data-Rate-Downstream [26-130]	Maximum-Interleaving-Delay-Upstream [26-139]
Minimum-Data-Rate-Upstream [26-131]	Actual-Interleaving-Delay-Upstream [26-140]
Minimum-Data-Rate-Downstream [26-132]	Maximum-Interleaving-Delay-Downstream [26-141]
Attainable-Data-Rate-Upstream [26-133]	Actual-Interleaving-Delay-Downstream [26-142]
Attainable-Data-Rate-Downstream [26-134]	Access-Loop-Encapsulation [26-144]
Maximum-Data-Rate-Upstream [26-135]	IWF-Session [26-254]

Options

- access-request—Specifies RADIUS Access-Request messages
- acct-start—Specifies RADIUS Acct-Start messages
- acct-stop—Specifies RADIUS Acct-Stop messages and Interim-Acct messages
- enable—Causes the router to include the DSL Forum VSAs, if available, in the specified outgoing RADIUS message
- disable—Causes the router to exclude the DSL Forum VSAs from the specified outgoing RADIUS message; this is the default behavior

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radius nas-identifier

Syntax radius nas-identifier *identifierValue*

no radius nas-identifier

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the RADIUS client's value for RADIUS attribute 32, NAS-Identifier. The **no** version deletes the NAS-Identifier.

Options

- *identifierValue*—Number, in the range 1–64 characters; used in the NAS-Identifier attribute for authentication and accounting requests

Mode Global Configuration

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radius nas-port-format

Syntax radius nas-port-format { 0sssssppp | ssss0ppp }

no radius nas-port-format

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the RADIUS client's use of a specific format for RADIUS attribute 5, NAS-Port. The NAS-Port format attribute is set only for ATM and Ethernet interfaces. The format is a 4-octet integer in which only the bits representing slot and port are changed. The remaining bits are not changed (8 bits VPI and 16 bits VCI; or 12 bits S-VLAN and 12 bits VLAN). The **no** version removes the format.

NOTE: For subscribers connected over the link aggregation group (LAG) interface in DHCP standalone authenticate mode, RADIUS derives a unique value from the subscriber's profileHandle and uses the value for the Nas-Port attribute. You cannot use this command to change the value of the Nas-Port attribute.

Options

- 0sssssppp—Sets the RADIUS client to use the 0*ssssppp* format where *s* is slot and *p* is port
- ssss0ppp—Sets the RADIUS client to use the *ssss*0*ppp* format where *s* is slot and *p* is port

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radius nas-port-format extended

Syntax For ATM interfaces:

radius nas-port-format extended atm [field-widths [slot *slotWidth*]
[adapter *adapterWidth*] [port *portWidth*] [vpi *vpiWidth*] [vci *vciWidth*]]

no radius nas-port-format extended atm

For Gigabit and 10-Gigabit Ethernet interfaces:

radius nas-port-format extended ethernet [field-widths [slot *slotWidth*]
[adapter *adapterWidth*] [port *portWidth*] [svlan *svlanWidth*] [vlan *vlanWidth*]]

no radius nas-port-format extended ethernet

Release Information Command introduced in JunosE Release 7.1.0.

Description Configures the RADIUS client's use of an extended format for RADIUS attribute 5, NAS-Port, on ATM, Gigabit Ethernet, and 10-Gigabit Ethernet interfaces on the E120 router and the E320 router. If you do not set the extended format for E120 or E320 routers, the RADIUS client uses the default format set through the **radius nas-port-format** command, which does not accommodate the number of bits required by the ATM interface specifier *slot/adapter/port/vpi/vci* or the Gigabit Ethernet and 10-Gigabit Ethernet interface specifier [*slot/adapter/port*] [*.vlanSubinterface*] on E120 and E320 routers. Issuing this command enables you to encode the interface information in the attribute by specifying the number of bits available for each field in the interface specifier. The **no** version removes the format.

NOTE:

- You must use this command with the **extended** keyword when you configure the NAS-Port format attribute on routers that have line modules that support more than seven physical ports.
- If you do not specify a value for a field, the number of bits is set to 0. The total number of bits for all fields cannot exceed 32. When the total number of bits is less than 32, the NAS-Port attribute is right-justified and the extra bits are set to 0.

Options

- field-widths—Configures the width of the fields in the NAS-Port attribute
- *slotWidth*—Number of bits for the slot field; default value is 5
- *adapterWidth*—Number of bits for the adapter field; default value is 0
- *portWidth*—Number of bits for the port field; default value is 3
- *vpiWidth*—Number of bits for the VPI subinterface field on ATM interfaces; default value is 8

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- *vciWidth*—Number of bits for the VCI subinterface field on ATM interfaces; default value is 16
- *svlanWidth*—Number of bits for the S-VLAN subinterface field on Gigabit Ethernet and 10-Gigabit Ethernet interfaces; default value is 12

NOTE: You must include S-VLAN IDs in the NAS-Port attribute by issuing the **radius vlan nas-port-format stacked** command for setting valid S-VLAN widths.

- *vlanWidth*—Number of bits for the VLAN subinterface field on Gigabit Ethernet and 10-Gigabit Ethernet interfaces; default value is 12

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radius override calling-station-id remote-circuit-id

Syntax radius override calling-station-id remote-circuit-id

no radius override calling-station-id

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures RADIUS to override the standard use of the Calling-Station-Id [31] RADIUS attribute and instead use the PPPoE remote circuit ID transmitted from a DSLAM device. The **no** version restores the default Calling-Station-Id value, which is the telephone number from which the call originated.

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radius override nas-info

Syntax [no] radius override nas-info

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the RADIUS client for a virtual router context to override the standard use of the NAS-IP-Address [4] and NAS-Identifier [32] attributes when the client performs AAA broadcast accounting. Normally, AAA accounting packets include the NAS-IP-Address and NAS-Identifier attributes of the virtual router that generates the accounting information. However, this command specifies that the broadcast accounting packets instead include the authenticating virtual router's NAS-IP-Address and NAS-Identifier attributes. The **no** version restores the standard use of the two attributes in AAA accounting information.

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radius override nas-ip-addr tunnel-client-endpoint

Syntax radius override nas-ip-addr tunnel-client-endpoint

no radius override nas-ip-addr

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the RADIUS client (LNS) to override the standard use of the NAS-IP-Address [4] RADIUS attribute and instead use the tunnel-client-endpoint (LAC) IP address. The **no** version restores the default address.

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radius override nas-port-id remote-circuit-id

Syntax radius override nas-port-id remote-circuit-id

no radius override nas-port-id

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures RADIUS to override the standard use of the NAS-Port-Id [87] RADIUS attribute and instead use the PPPoE remote circuit ID transmitted from a DSLAM device. The **no** version restores the default NAS-Port-Id value, which is the physical interface of the network access server (NAS) that is authenticating the user.

NOTE: For subscribers connected over the link aggregation group (LAG) interface in DHCP standalone authenticate mode, RADIUS uses the LAG interface ID for the Nas-Port-Id attribute.

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radius per-profile-attr-list

Syntax [no] radius per-profile-attr-list *profileName*

Release Information Command introduced in JunosE Release 12.1.0.

Description Creates a new RADIUS per-profile attribute list and puts the E Series router into RADIUS-Profile Configuration mode. The **no** version removes the configured RADIUS per-profile attribute list. By default, no attribute list is configured.

Options
- *profileName*—Name of the RADIUS per-profile; string of up to 32 characters

Mode Global Configuration

Related Documentation
- RADIUS Per-Profile Attribute List Configuration Overview
- radius include on page 334

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radius per-profile-attr-list (For Global Configuration)

Syntax

radius per-profile-attr-list *profileName* request-type { access-request | acct-start | acct-stop } { enable | disable } attributes [*attributeName*]*

[no] radius per-profile-attr-list *profileName*

Release Information

Command introduced in JunosE Release 12.1.0.

Description

Allows the user to configure a RADIUS per-profile list with attributes. The **no** version removes the configured RADIUS per-profile attribute list. By default, no attribute list is configured.

Options

- *profileName*—Name of the RADIUS per-profile; string of up to 32 characters
- access-request—Configures RADIUS to include the attribute in Access-Request packets
- acct-start—Configures RADIUS to include the attribute in Acct-Start packets
- acct-stop—Configures RADIUS to include the attribute in Acct-Stop packets and Acct-Update message
- enable—Includes the attribute in the request packets
- disable—Excludes the attribute in the request packets
- *attributeName*—The following RADIUS attributes can be specified:
  - calling-station-id
  - override-nas-ip-addr
  - *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode

Global Configuration

Related Documentation

- RADIUS Per-Profile Attribute List Configuration Overview
- radius include on page 334
- radius override nas-ip-addr tunnel-client-endpoint on page 351

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radius-perprofilelist-name

Syntax [no | default] radius-perprofilelist-name [*perProfileName*]

Release Information Command introduced in JunosE Release 12.1.0.

Description Allows the user to attach RADIUS per-profile name in an AAA profile. The **no** version restores the default value. By default, the profile name is not configured.

Options
- *perProfileName*—Name of RADIUS per-profile; string of up to 32 characters

Mode AAA Profile Configuration

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radius pppoe nas-port-format unique

Syntax [no] radius pppoe nas-port-format unique

Release Information Command introduced before JunosE Release 7.1.0.

Description Allows the E Series RADIUS client to use a unique value for the NAS-Port attribute for subscribers on PPPoE interfaces. The router derives the unique value from the subscriber's profileHandle. The **no** version restores the default value, determined by the interface.

NOTE: For subscribers connected over the link aggregation group (LAG) interface in DHCP standalone authenticate mode, RADIUS derives a unique value from the subscriber's profileHandle and uses the value for the Nas-Port attribute. You cannot use this command to change the value of the Nas-Port attribute.

Mode Global Configuration

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radius pre-authentication server

Syntax [no] radius pre-authentication server *ipAddress*

Release Information Command introduced in JunosE Release 8.1.0.

Description Specifies the IP address of a RADIUS preauthentication server and accesses RADIUS Configuration mode. The **no** version deletes the instance of the RADIUS preauthentication server.

Options
- *ipAddress*—IP address of the server

Mode Global Configuration

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radius relay server

Syntax radius relay { authentication | accounting } server

no radius relay [{ authentication | accounting } server]

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures a RADIUS relay authentication or accounting server, and enters RADIUS Relay Configuration mode. The **no** version deletes all RADIUS relay servers or the specific authentication or accounting server.

Options
- authentication—Configure the RADIUS relay authentication server
- accounting—Configure the RADIUS relay accounting server

Mode Global Configuration

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radius relay udp-checksum

Syntax radius relay udp-checksum { enable | disable }

no radius relay udp-checksum

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables or disables UDP checksum for RADIUS relay packets on virtual routers that you configure for B-RAS. The **no** version restores the default value, enable.

Options
- enable—Enables UDP checksum
- disable—Disables UDP checksum

Mode Global Configuration

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radius remote-circuit-id-delimiter

Syntax radius remote-circuit-id-delimiter *delimiter*

no radius remote-circuit-id-delimiter

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the delimiter character that sets off components in the PPPoE remote circuit ID value sent from a DSLAM and captured on the router. The **no** version restores the default delimiter character, #.

Options

- *delimiter*—Special character (for example, ! or %) to set off components in the PPPoE remote circuit ID value captured from a DSLAM; the default delimiter character is #

Mode Global Configuration

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radius remote-circuit-id-format

Syntax radius remote-circuit-id-format { [nas-identifier] { agent-circuit-id | agent-remote-id | agent-circuit-id agent-remote-id } | dsl-forum-1 }

no radius remote-circuit-id format

Release Information Command introduced before JunosE Release 7.1.0.
dsl-forum-1 keyword added in JunosE Release 7.2.0.

Description Specifies the format of the PPPoE remote circuit ID value sent from a DSLAM and captured on the router. You can format the PPPoE remote circuit ID value to include either or both of the agent-circuit-ID (suboption 1) and agent-remote-id (suboption 2) suboptions of the DHCP relay agent information option (option 82) or the PPPoE intermediate agent tags, with or without the NAS-Identifier [32] RADIUS attribute. The **no** version restores the default format, agent-circuit-id.

Options

- nas-identifier—Formats the PPPoE remote circuit ID value to include the NAS-Identifier [32] RADIUS attribute with either or both of the agent-circuit-id and agent-remote-id suboptions. If you include the **nas-identifier** keyword, you must also include either or both of the **agent-circuit-id** and **agent-remote-id** keywords.
- agent-circuit-id—Formats the PPPoE remote circuit ID value to include only the agent-circuit-id suboption; this is the default format
- agent-remote-id—Formats the PPPoE remote circuit ID value to include only the agent-remote-id suboption
- agent-circuit-id agent-remote-id—Formats the PPPoE remote circuit ID value to include both the agent-circuit-id and agent-remote-id suboptions
- dsl-forum-1—Formats the PPPoE remote circuit ID value to append the agent-circuit-id suboption value to an interface specifier that is consistent with the recommended format in the DSL Forum Technical Report (TR)-101—Migration to Ethernet-Based DSL Aggregation (April 2006).

Mode Global Configuration

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radius rollover-on-reject

Syntax radius rollover-on-reject { enable | disable }

no radius rollover-on-reject

Release Information Command introduced before JunosE Release 7.1.0.

Description On a virtual router, specifies whether the router should roll over to the next RADIUS server when the router receives an access-reject message for the user it is authenticating. The **no** version restores the default value, disable.

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

Mode Global Configuration

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radius route-download server

Syntax [no] radius route-download server *ipAddress*

Release Information Command introduced in JunosE Release 8.1.0.

Description Specifies the IP address of a RADIUS server that downloads routes and puts the E Series router into RADIUS Configuration mode. The **no** version deletes the instance of the RADIUS route-download server.

Options
- *ipAddress*—IP address of the RADIUS server

Mode Global Configuration

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radius trap acct-server-not-responding

Syntax radius trap acct-server-not-responding { enable | disable }

no radius trap acct-server-not-responding

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables or disables SNMP traps when a RADIUS accounting server fails to respond to a RADIUS accounting request. The **no** version restores the default, disable.

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

Mode Global Configuration

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radius trap acct-server-responding

Syntax radius trap acct-server-responding { enable | disable }

no radius trap acct-server-responding

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables or disables SNMP traps when a RADIUS accounting server returns to service after being marked as unavailable. The **no** version restores the default, disable.

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

Mode Global Configuration

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radius trap auth-server-not-responding

Syntax radius trap auth-server-not-responding { enable | disable }

no radius trap auth-server-not-responding

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables or disables SNMP traps when a RADIUS authentication server fails to respond to a RADIUS Access-Request message. The **no** version restores the default, disable.

Options

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

Mode Global Configuration

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radius trap auth-server-responding

Syntax radius trap auth-server-responding { enable | disable }

no radius trap auth-server-responding

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables or disables SNMP traps when a RADIUS authentication server returns to service after being marked as unavailable. The **no** version restores the default, disable.

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

Mode Global Configuration

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radius trap no-acct-server-responding

Syntax radius trap no-acct-server-responding { enable | disable }

no radius trap no-acct-server-responding

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables or disables SNMP traps when all the configured RADIUS accounting servers per VR fail to respond to a RADIUS accounting request. The **no** version restores the default, disable.

Options

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

Mode Global Configuration

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radius trap no-auth-server-responding

Syntax radius trap no-auth-server-responding { enable | disable }

no radius trap no-auth-server-responding

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables or disables SNMP traps when all the configured RADIUS authentication servers per VR fail to respond to a RADIUS Access-Request message. The **no** version restores the default, disable.

Options

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

Mode Global Configuration

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radius tunnel-accounting

Syntax radius tunnel-accounting { enable | disable }

no radius tunnel-accounting

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables or disables tunnel accounting. The **no** version restores the default value, disable.

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

Mode Global Configuration

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radius udp-checksum

Syntax radius udp-checksum { enable | disable }

no radius udp-checksum

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables or disables UDP checksum for RADIUS packets on virtual routers that you configure for B-RAS. The **no** version restores the default value, enable.

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

Mode Global Configuration

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radius update-source-addr

Syntax radius update-source-addr *sourceAddr*

no radius update-source-addr

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies an alternate source IP address for the router to use rather than the default router ID. The **no** version deletes the alternate address, and the router uses the router ID.

Options
- *sourceAddr*—Source address of the RADIUS client

Mode Global Configuration

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radius vlan nas-port-format stacked

Syntax radius vlan nas-port-format stacked

no radius vlan nas-port-format

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the RADIUS NAS-Port attribute to include the S-VLAN ID, in addition to the VLAN ID, for subscribers on Ethernet interfaces. The **no** version restores the default situation, which does not include the S-VLAN ID.

NOTE: For subscribers connected over the link aggregation group (LAG) interface in DHCP standalone authenticate mode, RADIUS derives a unique value from the subscriber's profileHandle and uses the value for the Nas-Port attribute. You cannot use this command to change the value of the Nas-Port attribute.

Mode Global Configuration

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range

Syntax range *minimumParameterValue maximumParameterValue*

no range

Release Information Command introduced in JunosE Release 7.1.0.

Description Assigns a range of minimum and maximum values to a specific QoS parameter definition. QoS clients can specify only values within this range when creating QoS parameter instances. The **no** version removes the range from the QoS parameter definition.

Options
- *minimumParameterValue*—Minimum parameter value, in the range 0–2147483647
- *maximumParameterValue*—Maximum parameter value, in the range 0–2147483647

Mode QoS Parameter Definition

Related Documentation
- Configuring a Basic Parameter Definition for QoS Administrators

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rate-limit-profile

Syntax

To create or modify a rate-limit profile:

[no] *profileType* rate-limit-profile *profileName* [*rateLimitType*]

To specify a rate-limit profile in a policy in classifier-group mode:

[no] [suspend] rate-limit-profile *profileName*

To create a hierarchical rate-limit profile:

[no] rate-limit-profile *profileName* [two-rate | one-rate] hierarchical

To specify a rate-limit for an external parent group:

rate-limit-profile *profileName*

no rate-limit-profile

Release Information

Command introduced before JunosE Release 7.1.0.
hierarchical keyword added in JunosE Release 7.2.0.
Parent Group Configuration mode added in JunosE Release 8.0.0.

Description

From Global Configuration mode, creates a rate-limit profile and enters Rate Limit Profile Configuration mode. The **no** version deletes the rate-limit profile.

From Classifier Group Configuration mode, creates a rate-limit profile rule in a policy list. The **no** version removes a rate-limit profile from a policy list; the **suspend** version suspends the rule; the **no suspend** resumes a suspended rule.

NOTE: **The Classifier Group Configuration mode version of the rate-limit-profile command replaces the Policy List Configuration mode version, which may be removed completely in a future release.**

From Parent Group Configuration mode, creates a parent group in a hierarchy.

The **hierarchical** keyword creates a hierarchical rate limit. The **no** version removes a hierarchical rate-limit profile.

Options

- *profileType*—ip, ipv6, l2tp, or mpls; for backward compatibility, if you do not specify a profile type, the router creates an IP profile
- *profileName*—Name of the rate-limit profile
- *rateLimitType*—One-rate or two-rate

Mode

Classifier Group Configuration, Global Configuration, Parent Group Configuration

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Related Documentation

- Policy Rule Precedence
- Creating a One-Rate Rate-Limit Profile
- Creating a Two-Rate Rate-Limit Profile

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rate-period

Syntax rate-period *ratePeriod*

no rate-period

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the length of time during which statistics are logged. The **no** version deletes the rate period and results in no statistics being gathered.

Options
- *ratePeriod*—Number of seconds in the range 1–43200

Mode Statistics Profile Configuration

Related Documentation
- Configuring Rate Statistics
- Configuring Event Statistics

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rd

Syntax rd *distinguisher*

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the unique two-part route distinguisher for a VRF. You must specify a route distinguisher for a VRF. Otherwise, the VRF will not operate. After you have configured the route distinguisher, you can change it only by removing and recreating the VRF.

There is no **no** version.

Options

- *distinguisher*—Unique two-part identifier in the format *number1:number2*
  - *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 VRF Configuration

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reaction-factor

Syntax reaction-factor *reactionFactor*

no reaction-factor

Release Information Command introduced in JunosE Release 8.0.0.

Description Specifies the reaction factor for all simple shared shapers on the router. The reaction factor determines how the shared shaper reacts to changes in the measured rate. The **no** version removes the specified reaction factor from all simple shared shapers on the router.

Options
- *reaction-factor*—Percentage in the range 0–1000; default value is 200

Mode QoS Shared Shaper Control Configuration

Related Documentation
- Configuring Simple Shared Shaper Algorithm Variables

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receive-interface

Syntax receive-interface *interfaceType interfaceSpecifier*

no receive-interface

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the interface on which the RTR probe expects to receive responses. You must set this attribute when multiple RTR entries are configured to use the same target address. Specifying a receiving interface enables the router to map incoming RTR responses to the proper RTR entry, even when multiple RTR entries have the same target address. The **no** version restores the default value, which is to receive a response on any interface.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5

Mode RTR Configuration

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receive version

Syntax [no] receive version [1] [2] [off]

Release Information Command introduced before JunosE Release 7.1.0.

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

Options
- 1—Specifies RIP version 1 only
- 2—Specifies RIP version 2 only
- off—Turns reception off

Mode Remote Neighbor Configuration

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receive-window

Syntax receive-window *receiveWindowSize*

no receive-window

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the L2TP receive window size (RWS) for a tunnel on the LAC (in Domain Map Tunnel Configuration and Tunnel Group Tunnel Configuration modes) or on the LNS (in L2TP Destination Profile Host Configuration mode). The RWS is the number of packets that the peer can transmit without receiving an acknowledgment from the router. The **no** version reverts to the systemwide RWS setting configured with the l2tp tunnel default-receive-window command.

Options

- *receiveWindowSize*—Tunnel receive window size, in packets; currently, the only supported value is 4

Mode Domain Map Tunnel Configuration, L2TP Destination Profile Host Configuration, Tunnel Group Tunnel Configuration

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redistribute

Syntax The options available vary depending on the routing protocol context; that is, on whether you are configuring BGP, DVMRP, IS-IS, OSPF, or RIP.

For BGP:

redistribute { *fromProtocol* | [ospf match internal [external [1 | 2]] |
ospf match external [1 | 2] [internal]] } [metric *absoluteValue* |
route-map *mapTag* | weight *wtValue*]*

no redistribute { *fromProtocol* | [ospf match internal [external [1 | 2]] |
ospf match external [1 | 2] [internal]] } [metric [*absoluteValue*] |
route-map [*mapTag*] | weight [*wtValue*]]*

For DVMRP:

[no] redistribute *fromProtocol* [route-map *mapTag*]

For IS-IS:

redistribute { *fromProtocol* | static ip |
[ospf match internal [external [1 | 2]] |
ospf match external [1 | 2] [internal]] } [level-1 | level-1-2 | level-2 |
metric *absoluteValue* | metric-type { external | internal } |
route-map *mapTag*]*

no redistribute { *fromProtocol* | static ip |
[ospf match internal [external [1 | 2]] |
ospf match external [1 | 2] [internal]] } [level-1 | level-1-2 | level-2 |
metric [*absoluteValue*] | metric-type [external | internal] | route-map [*mapTag*]]*

For OSPFv2:

redistribute { *fromProtocol* | ospf match internal }
[metric-type { 1 | 2 } | metric *absoluteValue* | route-map *mapTag* | tag *tagValue*]*

no redistribute { *fromProtocol* | ospf match internal }
[metric-type [1 | 2] | metric [*absoluteValue*] | route-map [*mapTag*] |
tag [*tagValue*]]*

redistribute ospf
{ match internal external [1 | 2] | match external [1 | 2] [internal] }
[metric *absoluteValue* | route-map *mapTag* | tag *tagValue*]*

no redistribute ospf
{ match internal external [1 | 2] | match external [1 | 2] [internal] }
[metric [*absoluteValue*] | route-map [*mapTag*] | tag [*tagValue*]]*

For OSPFv3:

redistribute { *fromProtocol* | ospf match internal } | metric-type { 1 | 2 }

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[metric *absoluteValue* | tag *tagValue* | route-map *mapTag*]*

no redistribute { *fromProtocol* | ospf match internal } | metric-type [1 | 2]
[metric [*absoluteValue*] | tag [*tagValue*] | route-map [*mapTag*]]*

[no] redistribute ospf
{ match internal external [1 | 2] | match external [1 | 2] [internal] }
[metric [*absoluteValue*] | route-map [*mapTag*] | tag [*tagValue*]]*

For RIP:

redistribute { *fromProtocol* | ospf match internal [external [1 | 2]] |
ospf match external [1 | 2] [internal] } [metric *absoluteValue* |
route-map *mapTag*]*

no redistribute { *fromProtocol* | ospf match internal } [external [1 | 2]] |
ospf match external [1 | 2] [internal] } [metric [*absoluteValue*] |
route-map [*mapTag*]]*

Release Information Command introduced before JunosE Release 7.1.0.

Description Redistributes routes from one routing domain into another routing domain. For DVMRP, only routes that appear in the RPF table can be redistributed. The **no** version ends redistribution of information.

Options

- *fromProtocol*—Source protocol from which routes are being redistributed; default value is no source protocol defined
  - access—Redistributes access-server routes (framed routes sourced by AAA)
  - access-internal—Redistributes internal host routes to directly connected clients
  - bgp—Routes sourced from BGP protocol
  - connected—Routes that are established automatically when IP is enabled on an interface (non-multicast routing protocols). For routing protocols such as OSPF and IS-IS, these routes are redistributed as external to the AS. When you specify the **connected** keyword, only those connected networks that are configured on an interface that is *not* configured to run IS-IS will be redistributed. For DVMRP, specifying this keyword redistributes routes that are established automatically in the RPF table when another multicast routing protocol, such as PIM, is enabled on an interface.
  - dvmrp—Routes sourced from DVMRP
  - isis—Routes sourced from IS-IS
  - ospf—Routes sourced from OSPF
  - rip—Routes sourced from RIP
  - static—Redistributes static routes
- static ip—Redistributes static routes for IS-IS
- ospf match—Determines what type(s) of routes to redistribute from OSPF; all OSPF routes are redistributed if you do not specify a type

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  - internal—Redistributes OSPF internal routes
  - external 1—Redistributes OSPF external routes of metric-type 1
  - external 2—Redistributes OSPF external routes of metric-type 2
- *absoluteValue*—Metric that is applied to all routes from the source protocol, in the range 0–4294967295; in BGP this value is the MED, which defaults to the IGP metric of the redistributed route
- *mapTag*—String of up to 32 alphanumeric characters that specifies a route map applied to all routes from the source protocol; all routes are redistributed if you do not specify a route map
- *wtValue*—Administrative weight (relative importance) for routes redistributed into the protocol; a number, in the range 0–65535
- level-1—Specifies the redistribution of routes into only IS-IS level 1
- level-1-2—Specifies the redistribution of routes into both IS-IS level 1 and level 2
- level-2—Specifies the redistribution of routes into only IS-IS level 2; this is the default behavior
- metric-type—Specifies the OSPF or IS-IS metric type for all routes from the source protocol

  For routes redistributed into IS-IS:

  - metric-type external—Only the metric of the route itself is considered for comparison
  - metric-type internal—Both the metric of the route and the cost to the router that advertised the route are considered for comparison; this is the IS-IS default

  For routes redistributed into OSPF:

  - 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
- *tagValue*—Tag that is applied to all routes from the source protocol, in the range 0–4294967295
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Address Family Configuration, Router Configuration

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redistribute isis

Syntax [no] redistribute isis from { level-1 into level-2 | level-2 into level-1 } route-map *mapTag*

Release Information Command introduced in JunosE Release 8.2.0.

Description Redistributes IPv6 routes from one IS-IS routing level into the other. The **no** version ends the redistribution.

Options

- level-1—Specifies the redistribution of routes from or into IS-IS level 1
- level-2—Specifies the redistribution of routes from or into IS-IS level 2
- *mapTag*—String of up to 32 alphanumeric characters specifying the route map applied to all routes from the source protocol; if you do not specify a route map, all routes are redistributed

Mode Address Family Configuration

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redistribute isis ip

Syntax [no] redistribute isis ip { level-1 into level-2 | level-2 into level-1 }
{ distribute-list *accessListName* | route-map *mapTag* }

Release Information Command introduced before JunosE Release 7.1.0.

Description Redistributes routes from one IS-IS routing level into the other. You must specify either an IP access list or a route map to define the IS-IS routes to be redistributed. The **no** version ends the redistribution.

Options

- level-1—Specifies the redistribution of routes from or into IS-IS level 1
- level-2—Specifies the redistribution of routes from or into IS-IS level 2
- *accessListName*—String of up to 32 alphanumeric characters specifying the IP access list used to filter routes between levels
- *mapTag*—String of up to 32 alphanumeric characters specifying the route map applied to all routes from the source protocol; if you do not specify a route map, all routes are redistributed

Mode Router Configuration

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red-mark

Syntax [no] red-mark *colorMarkValue*

Release Information Command introduced in JunosE Release 7.2.0.

Description Applies ToS mark value to red packets, which can be from policy actions, earlier policies, or rate-limit hierarchies. The **no** version deletes the ToS mark value.

Options
- *colorMarkValue*—Value of the ToS mark to be applied, in the range 0–255

Mode Color Mark Profile Configuration

Related Documentation
- Hierarchical Rate Limits Overview
- Policy Rule Precedence

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redundancy

Syntax redundancy

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables redundancy configuration mode. There is no **no** version.

Mode Global Configuration

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redundancy force-switchover

Syntax redundancy force-switchover { *slotNumber* | srp }

Release Information Command introduced before JunosE Release 7.1.0.

Description Forces the router to switch from the primary line module in the specified slot or the primary SRP module to the spare line module or SRP module. This command overrides the redundancy lockout command. With the **srp** option, the command is equivalent to the srp switch command. There is no **no** version.

NOTE: This command replaces the **redundancy force-failover** command, which has been deprecated.

Options

- *slotNumber*—Number of the slot in which the primary line module resides
- srp—Indicates that the router should switch from the active to the standby SRP module

Mode Privileged Exec

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redundancy lockout

Syntax [no] redundancy lockout *slotNumber*

Release Information Command introduced before JunosE Release 7.1.0.

Description Prevents the router from switching automatically to a spare line module if the primary module fails on a slot. The **no** version reverts to the default situation, in which the router switches automatically to a spare line module if the primary module fails on a slot. The redundancy force-switchover command overrides this command.

Options
- *slotNumber*—Number of the slot in which the primary line module resides

Mode Global Configuration

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redundancy revert

Syntax [no] redundancy revert *slotNumber*
[*startTime* [[*startMonth startDay* | *startDay startMonth*] *startYear*]]

Release Information Command introduced before JunosE Release 7.1.0.

Description Forces the router to revert to the primary line module in the specified slot. If you specify a time or time and date, reversion occurs when the primary line module becomes available after that time. Otherwise, reversion occurs immediately. Issuing this command causes reversion once; after reboot, the router returns to the settings configured in the software. The **no** version has no effect.

Options
- *slotNumber*—Number of the slot in which the primary line module resides
- *startTime*—Time, in 24-hour format (00:00:00), at which the router reverts to this line module
- *startMonth*—Name of the month in which the router reverts to this line module
- *startDay*—Day of the month on which the router reverts to this line module
- *startYear*—Four-digit year in which the router reverts to this line module

Mode Privileged Exec

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redundancy revertive

Syntax [no] redundancy revertive [*timeOfDay*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables the router to revert from spare line modules to available primary line modules automatically. The **no** version reverts to the default situation, in which there is no automatic reversion from spare to primary line modules.

Options
- *timeOfDay*—Time, in 24-hour format (00:00:00), at which the router reverts to the available primary line modules every day

Mode Global Configuration

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redundant-port

Syntax To specify a member interface with optional failover timeout and packet sampling settings:

[no] redundant-port *interfaceType interfaceSpecifier* [[failover timeout *failoverTime*] [packet-sampling [delay *delayTime*]]]

To specify a member interface with optional auto-reversion, transmitter, and failover timeout settings:

[no] redundant-port *interfaceType interfaceSpecifier* [[auto-revert] [transmitter { on | off }] [failover timeout *failoverTime*]]

Release Information Command introduced in JunosE Release 8.0.0.

Description Specifies a member link of a LAG bundle as redundant. The **no** version disables the redundant status of the member link or disables the specified redundancy setting for the member link.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *failoverTime*—Time between the current link event leading to failover or reversion and the previous link failover or reversion, in the range 100-10000 milliseconds (ms). The default value is 1000 milliseconds.
- packet-sampling—Enables packet sampling to determine a failed port. By default, packet sampling is disabled.
- *delayTime*—Minimum time difference between redundant and active port samples, in the range 100–10000 milliseconds (ms). The default value is 0 millisecond.
- auto-revert—Specifies that the failed port automatically resumes as active. By default, auto revert is disabled.
- transmitter—Enable or disable the transmitter when in redundant mode
  - on—Enabling the transmitter provides for a quick LAG failover in the event one of the non-redundant links in the LAG fail. This is particularly true when LACP has been enabled on the LAG, because it can take several seconds for LACP to converge on a link
  - off—Disabling the transmitter enables the remote end of the redundant link to also be in the operational Down state, which might be a requirement for third-party equipment when supporting redundancy over LAG

Mode Global Configuration

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redundant-port force-failover

Syntax redundant-port *interfaceType interfaceSpecifier* [force-failover]

Release Information Command introduced in JunosE Release 8.0.0.

Description Specifies a member link of a LAG bundle to fail over when more than one active member link exists. There is no **no** version.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- force-failover—Forces the specified port to fail over

Mode Global Configuration

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reference-bandwidth

Syntax reference-bandwidth *refBandwidth*

no reference-bandwidth

Release Information Command introduced in JunosE Release 8.0.0.

Description Configures a reference bandwidth on which the default routing metric for an IS-IS interface is based in the absence of a configured metric. The default metric is calculated as the reference bandwidth divided by the interface's bandwidth. The **no** version removes the reference bandwidth.

Options
- *refBandwidth*—Number of bits per second, in the range 1000–1000000000000

Mode Router Configuration

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reference-rate

Syntax reference-rate *refRate*

no reference-rate

Release Information Command introduced in JunosE Release 8.1.0.

Description Specifies the reference rate for the policy parameter. The **no** version sets the reference rate to the default value.

Options
- *refRate*—Value of reference rate, in the range 0–4294967295, default value is 65536

Mode Policy Parameter Configuration

Related Documentation
- Policy Rule Precedence

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refresh-period

Syntax refresh-period *period*

no refresh-period

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the timeout period in milliseconds between generation of RSVP refresh messages. The **no** version restores the default value, 30000 milliseconds.

Options
- *period*—Interval from 0–4294967295

Mode RSVP Profile Configuration

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relearn

Syntax relearn { permit | deny }

no relearn

Release Information Command introduced before JunosE Release 7.1.0.

Description Modifies the relearning subscriber policy for the subscriber (client) interfaces that belong to a bridge group or to a VPLS instance. A bridge group or a VPLS instance learns the addresses of network nodes by examining the MAC source address of every incoming packet and creating an entry in the forwarding table that consists of the address and associated interface where the packet was received. The **relearn** command defines whether subscriber interfaces that belong to a bridge group or to a VPLS instance can relearn a MAC address entry on a different interface from the one initially associated with this entry in the forwarding table. The **no** version restores the default value, permit relearning.

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 the MPLS tunnels from the router to the remote VPLS edge (VE) devices.

Options

- permit—Enables the subscriber interfaces that belong to a bridge group or to a VPLS instance to relearn a MAC address entry on a different interface from the one initially associated with this entry in the forwarding table
- deny—Prevents the subscriber interfaces that belong to a bridge group or to a VPLS instance from relearning a MAC address entry on a different interface from the one initially associated with this entry in the forwarding table; with this option, the interface waits until the entry expires from the forwarding table to relearn it on the new interface

Mode Subscriber Policy Configuration

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reload

Syntax reload [*reason* | force [*reason*] | in *inTime* [*reason*] | at *atTime* [*month day* | *day month*] [*reason*] | cancel | standby-srp]

Release Information Command introduced before JunosE Release 7.1.0.

Description Reloads the operating system in the designated interval or at the designated time. There is no **no** version.

NOTE: **Reloading the standby SRP module causes high availability to be temporarily disabled until the standby SRP module reloads and resynchronizes with the active SRP module.**

Options

- *reason*—Reason for the reload (1–255 characters long)
- force—Prompts for confirmation to reboot if the router is in certain states, such as during the synchronization of SRP modules, that could lead to a loss of configuration data or an NVS corruption.
- *inTime*—Interval in minutes or hours and minutes ([*hh*:] *mm*) at the end of which the operating system is reloaded. If the router is in a state at that time that could lead to a loss of configuration data or an NVS corruption, the reload is automatically delayed for one minute, up to five times. If the router cannot reload on its sixth attempt, the scheduled reload fails.
- *atTime*—Time (*hh*:*mm* using a 24-hour clock) at which the software is reloaded. If you specify the month and day, the reload takes place at the specified time and date. If you do not specify the month and day, the reload takes place at the specified time on the current day (if the specified time is later than the current time) or on the next day (if the specified time is earlier than the current time). Specifying 00:00 schedules the reload for midnight. If the router is in a state at that time that could lead to a loss of configuration data or an NVS corruption, the reload is automatically delayed for one minute, up to five times. If the router cannot reload on its sixth attempt, the scheduled reload fails.
- *month*—Name of the month (any number of characters in a unique string)
- *day*—Number of the day of the month, in the range 1–31
- cancel—Cancels a scheduled reload
- standby-srp—Reloads the standby SRP module without having to look up its slot number to use with the **reload slot** command

Mode Privileged Exec

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reload slot

Syntax reload slot *slotNumber* [*subsystem*] [force]

Release Information Command introduced before JunosE Release 7.1.0.

Description Reboot the module in the selected slot. You can reboot the subsystems on the SRP modules on the E120 router or the E320 router separately. There is no **no** version.

Options

- *slotNumber*—Number of a selected slot in the router; for ERX7xx models, a number, in the range 0–6; for ERX14xx models, a number, in the range 0–13; for the ERX310 router, a number, in the range 0–2; for E120 and E320 routers, a number, in the range 0–16
- *subsystem*—Type of subsystem on E120 and E320 routers; 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 reboot 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 reboot only an individual fabric slice
- force—Prompts for confirmation to reboot if the router is in certain states, such as during the synchronization of SRP modules, that could lead to a loss of configuration data or an NVS corruption.

Mode Privileged Exec

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remote host

Syntax [no] remote host { *hostname* | default }

Release Information Command introduced before JunosE Release 7.1.0.

Description Defines an L2TP host profile. Accesses the L2TP Destination Profile Host Configuration mode. The **no** version removes an L2TP host profile.

Options
- *hostname*—Name the LAC must supply in the hostname AVP of the receive SCCRQ; can be up to 64 characters in length (no spaces)
- default—Allows the LAC to use any hostname in the hostname AVP

Mode L2TP Destination Profile Configuration

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remote-neighbor

Syntax For OSPF:

[no] remote-neighbor *ipAddress* area { *areaId* | *areaIdInt* }

For PIM:

[no] remote-neighbor [*ipAddress* | *ipv6Address*] sparse-mode

For RIP:

[no] remote-neighbor *ipAddress*

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures an OSPF, PIM, or RIP remote neighbor. The **no** version removes the remote neighbor and any attributes configured for the neighbor.

NOTE: For PIM, 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.

Options

- *ipAddress*—IPv4 address identifying the remote neighbor
- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value, in the range 0–4294967295
- *ipv6Address*—IPv6 address identifying the remote neighbor

Mode Router Configuration

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rename

Syntax rename [*sourcePath*]*sourceFilename* [*destinationPath*]*destinationFilename*

Release Information Command introduced before JunosE Release 7.1.0.
hostName and *deviceName* variables added in JunosE Release 7.2.0.

Description Renames a local file. There is no **no** version.

NOTE: You cannot change the extension of a file, for example, from .mac to .scr. See *Renaming Files* in the *JunosE System Basics Configuration Guide* for detailed information on file type usage with the **rename** command.

Options

- *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 router and the E320 router
  - 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 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*—File to rename
- *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

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- *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

- *destinationFileName*—New filename

Mode Privileged Exec

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request-data-size

Syntax request-data-size *requestSizeValue*

no request-data-size

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the request payload data size. The **no** version restores the default value.

Options
- *requestSizeValue*—Size of the data in bytes in the request packet's payload; default value is 1 byte

Mode RTR Configuration

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request-type

Syntax [no | default] request-type { access-request | acct-start | acct-stop }

Release Information Command introduced in JunosE Release 12.1.0.

Description Configures the RADIUS request message type. The **no** version restores the default value. By default, the access request type is configured.

Options
- access-request—Configures RADIUS to include the attribute in Access-Request packets
- acct-start—Configures RADIUS to include the attribute in Acct-Start packets
- acct-stop—Configures RADIUS to include the attribute in Acct-Stop packets

Mode RADIUS Per-Profile List Configuration

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reserve

Syntax reserve *ipAddress macAddress*

no reserve *ipAddress*

Release Information Command introduced before JunosE Release 7.1.0.

Description For DHCP local server clients, reserves an IP address for a specific MAC address. The **no** version removes the reservation.

Options
- *ipAddress*—IP address to reserve
- *macAddress*—MAC address for which the IP address is reserved.

Mode DHCP Local Pool Configuration

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reserve-bandwidth

Syntax reserve-bandwidth { 90 | 80 | 50 }

no reserve-bandwidth

Release Information Command introduced in JunosE Release 11.2.0.

Description Directs the router to reserve a percentage of the total bandwidth for forwarding on a shared server port. The remaining bandwidth is used for tunnel processing. The default bandwidth percentage reserved for forwarding is 90. The **no** version reserves the default percentage of the total bandwidth, 90.

NOTE: This command is supported only for the ES2 10G ADV LM when configured in shared server mode. It is not supported on other line modules that support tunnel server configuration.

Options

- 90—Sets the percentage of reservable bandwidth on a shared server port for forwarding to 90. The remaining 10 percent is used for tunnel processing. This is the default option.
- 80—Sets the percentage of reservable bandwidth on a shared server port for forwarding to 80. The remaining 20 percent is used for tunnel processing.
- 50—Sets the percentage of reservable bandwidth on a shared server port for forwarding to 50. The remaining 50 percent is used for tunnel processing.

Mode Tunnel Server Configuration

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resource

Syntax resource *resourceValue*

no resource

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the total number of triggers that the virtual router allows. The **no** version returns the resource level to its default (50).

Options
- *resourceValue*—Total number of triggers , in the range 1–1000, that the virtual router allows.

Mode SNMP Server Event Manager Configuration

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resource if-type

Syntax [no] resource if-type { atm-active-sub-if | atm-sub-if | atm-vc | ip | ppp-link } { slot *slot* | system } threshold { falling *fallingValue* | hold-down-time *holdDownTime* | rising *risingValue* }

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies threshold values for specific interface types on a slot or systemwide basis. The **no** version sets the threshold parameter to its default value (for rising, 90% of the maximum value of the resource; for falling, 1% of the maximum value of the resource; for hold-down time, 300 seconds).

CAUTION: **Do not specify a falling value larger than the specified rising value; do not specify a rising value smaller than the specified falling value.**

Options

- atm-active-sub-if—Configures active ATM subinterfaces
- atm-sub-if—Configures both active and inactive ATM subinterfaces
- atm-vc—Configures ATM virtual circuits
- ip—Configures IP interfaces
- ppp-link—Configures PPP link interfaces
- *slot*—Number of the chassis slot in the range 0–2 (ERX310 model), 0–6 (ERX7xx models), 0–13 (ERX14xx models), 0–5 (E120 router), and 0-16 (E320 router)
- For ERX7xx models, a number in the range 0–6; for ERX14xx models, a number in the range 0–13; for the ERX310 router, a number in the range 1–2; for the E120 router, a number in the range 0–5; for the E320 router, a number in the range 0–16
- *fallingValue*—Falling threshold for the resource, in the range 0–4294967295
- *holdDownTime*—Hold-down time for the resource, in the range 0–4294967295 seconds
- *risingValue*—Rising threshold for the resource, in the range 0–4294967295

Mode Global Configuration

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resource threshold

Syntax [no] resource threshold disable traps

Release Information Command introduced before JunosE Release 7.1.0.

Description Disables the issuance of traps when the resource reaches a preset threshold. The **no** version reenables traps for resource threshold conditions.

Mode Global Configuration

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restricted

Syntax [no] restricted interface *restrictedInterfaceType interfaceSpecifier* [*atmVpi* | *s-vlanIdValue*]

Release Information Command introduced in JunosE Release 9.2.0.

Description Configures an interface superset as restricted to a particular ATM-VPI or S-VLAN ID. The **no** version deletes the restriction for the interface superset.

Options

- *restrictedInterfaceType*—One of the following restricted interface types: atm-vp, fastEthernet, gigabitEthernet, svlan, tenGigabitEthernet
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see "Interface Types and Specifiers" on page 5
- *atmVpi*—Virtual path identifier of this PVC; number in the range 0–255
- *s-vlanIdValue*—S-VLAN ID number in the range 0–4095

Mode QoS Interface Superset Configuration

Related Documentation

- Configuring Interface Supersets for QoS

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retransmit

Syntax retransmit *retries*

no retransmit

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the maximum number of times a router retransmits a RADIUS packet to an authentication or accounting server. The **no** version restores the default value.

Options
- *retries*—Number of retries, in the range 0–100; default value is 3

Mode RADIUS Configuration

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retransmit-interval

Syntax retransmit-interval *retransInterval*

no retransmit-interval

Release Information Command introduced before JunosE Release 7.1.0.

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

Options

- *retransInterval*—Number of seconds, in the range 0–3600; default value is 5

Mode Remote Neighbor Configuration

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rib-out disable

Syntax [no | default] rib-out disable

Release Information Command introduced before JunosE Release 7.1.0.

Description Disables storage of routes to the Adj-RIBs-Out tables (disables rib-out) for all BGP peers. Storage is disabled by default. The **no** version enables the route storage. The **default** version removes the explicit global configuration for all peers and reestablishes inheritance of the feature configuration.

NOTE: If you enable or disable rib-out globally and this action changes the current configuration, all sessions are automatically bounced.

Mode Router Configuration

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root proxy url

Syntax root proxy url *name*

no root proxy url

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies your network's HTTP proxy server, which can submit HTTP requests on the E Series router's behalf to retrieve the root CA certificate during online digital certificate configuration. The **no** version removes the URL from the configuration.

Options
- *name*—Name of proxy server in the format http://*server_ipaddress*; 1 to 200 characters

Mode IPsec CA Identity Configuration

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route interface

Syntax

route interface tunnel *lspName* [vc-id] *vcidValue* [groupID *groupIdValue*]
[control-word | no-control-word] [sequencing | no-sequencing]
[relay-format { ethernet | frame-relay | ppp | vlan | ethernet-raw-mode}]

no route interface

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.
frame-relay keyword added in JunosE Release 9.1.0.
ethernet-raw-mode keyword added in JunosE Release 10.0.0.

Description

Routes layer 2 traffic on a specified MPLS tunnel. 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. You cannot enter the command in a VRF. The **no** version negates this command. See also the mpls-relay command.

NOTE: This command is supported for configuration on an ATM port (ATM Adaptation Layer 5 [AAL5] over an ATM major interface). Before you can specify VPI/VCI ranges and cell concatenation parameters on the ATM port to enable transmission of multiple ATM virtual circuits over a single pseudowire, you must associate the ATM port with the corresponding pseudowire using the **mpls-relay** or **router interface tunnel** command. For more information about the support for multiple VCs over a single pseudowire, see *Multiple ATM Virtual Circuits over a Single Pseudowire Overview* in the *JunosE BGP and MPLS Configuration Guide*

Options

- *lspName*—Name of the MPLS LSP
- *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
- 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

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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 not to 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 frame-relay—Specifies that the router uses legacy (pre-RFC 4619) Frame Relay pseudowire type value for signaling and encapsulation. Enables a router running JunosE Software that supports the pseudowire type value defined in RFC 4619, Encapsulation methods for transport of Frame Relay over MPLS Networks, to interoperate with a router that uses the legacy (pre-RFC 4619) pseudowire type value. This option is available on serial or POS interfaces for Frame Relay layer 2 circuits. It is not supported on E120 and E320 routers.
- 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.
- relay-format ethernet-raw-mode—Specifies that the router uses Ethernet raw mode encapsulation for packets entering and leaving pseudowires. This service corresponds to PW type 0x0005 "Ethernet" [IANA]. When configured on an S-VLAN subinterface, enables the provider edge (PE) device to strip the S-VLAN tags from all packets entering the Martini circuit (MPLS packet switched network). It is supported on ES2 4G, ES2 10G, and ES2 10G Uplink LMs on E120 and E320 routers. You can enable the raw mode configuration only for MPLS shim interfaces stacked on SVLAN interfaces.

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NOTE: The **relay-format** keyword determines the pseudowire PW Type value that is used in LDP protocol messages. For a complete list of pseudowire Type values, see http://www.iana.org/assignments/pwe3-parameters.

If you do not specify the **relay-format** keyword in the **mpls-relay** or **route interface** command, the pseudowire Type value is chosen based on the type of the interface. For Ethernet interfaces, the pseudowire Type value is chosen as Ethernet (0x0005). For VLAN interfaces, the pseudowire Type value is chosen as Ethernet Tagged Mode (0x0004)

Mode Interface Configuration

Related Documentation

- Configuring Ethernet/VLAN Layer 2 Services
- Configuring Frame Relay Layer 2 Services
- Configuring HDLC Layer 2 Services
- Ethernet Raw Mode Encapsulation for Martini Layer 2 Transport Overview
- Configuring S-VLAN Tunnels for Layer 2 Services

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route-map

Syntax

Specifying a route map for DVMRP or RIP:

[no] route-map *mapTag* [*interfaceType interfaceSpecifier*]

Defining a route map:

[no] route-map *mapTag* [permit | deny] [*sequence*]

Defining a route map for data MDTs:

route-map *routeMapName*

no route-map

Release Information

Command introduced before JunosE Release 7.1.0.
IP PIM Data MDT Configuration mode added in JunosE Release 8.2.0.

Description

Specifies a route map for DVMRP, RIP, or data MDTs, or defines the conditions for applying routing policies to filter or modify routes redistributed into or propagated by a routing protocol. The **no** version deletes the route map.

Options

- *mapTag*—String of up to 32 alphanumeric characters.
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *mapTag*—String of up to 32 alphanumeric characters. The **redistribute** Router Configuration command uses this string to reference this route map. Multiple route maps may share the same map tag.
- permit—If the match criteria are met for this route map and **permit** is specified, the route is redistributed as controlled by the set actions.
- deny—If the match criteria are met for the route map and **deny** is specified, the route is not redistributed, and no further route maps sharing the same map tag are examined.
- *sequence*—Number, in the range 0–65535, that indicates the position a new route map is to have in the list of route maps already configured with the same map tag. If given with the **no** version of this command, it specifies the position of the route map that should be deleted.

Mode

Address Family Configuration (RIP), Global Configuration, IP PIM Data MDT Configuration

Related Documentation

- show route-map on page 1138

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route-target

Syntax [no] route-target { import | export | both } *extendedCommunity*

Release Information Command introduced before JunosE Release 7.1.0.

Description Creates or adds to a list of VPN extended communities used to determine which routes are imported by a VRF. The **no** version removes a route target from the specified list.

A route is installed in the VRF's forwarding table 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 VRF.

Options

- import—Adds the route target to the current VRF's import list; the VRF 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 current VRF's export list; all routes advertised from this VRF are associated with the export list; at least one route target in the export list must match a route target in the import list of a VRF receiving the route for the route to be installed in the VRF's forwarding table
- both—Adds the route target to both the import list and export list of the current VRF
- *extendedCommunity*—Two-part number of the format *number1*:*number2* that identifies an extended community of VPNs where:
  - *number1*—AS number or IP address
  - *number2*—Unique integer; 32 bits if *number1* is an AS number; 16 bits if *number1* is an IP address

Mode VRF Configuration

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router bgp

Syntax [no] router bgp *autonomousSystem*

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the BGP routing process. Allows you to set up a distributed routing core that automatically guarantees the loop-free exchange of routing information between ASs. All subsequent BGP configuration commands are placed within the context of this router and AS; you can have only a single BGP instance per virtual router. The **no** version removes the BGP routing process.

Options
- *autonomousSystem*—Number, in the range 1–4294967295; the AS number that identifies the router to other BGP routers

Mode Global Configuration

Related Documentation
- BGP Signaling for L2VPNs Overview
- Configuring BGP Signaling for VPLS

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router dvmrp

Syntax [no] router dvmrp

Release Information Command introduced before JunosE Release 7.1.0.

Description Creates and enables DVMRP on a virtual router; accesses DVMRP router configuration mode. The **no** version deletes DVMRP from a virtual router.

Mode Global Configuration

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router-id

Syntax [no] router-id *ipAddress*

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies an IP address that the router uses as a router ID for OSPF. The **no** version forces OSPF to use the previous OSPF router ID.

Options
- *ipAddress*—IP address that the router uses as a router ID for OSPF.

Mode Router Configuration

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router igmp

Syntax [no] router igmp

Release Information Command introduced before JunosE Release 7.1.0.

Description Creates and enables IGMP on a virtual router; accesses IGMP router configuration mode. The **no** version disables IGMP on a virtual router.

Mode Global Configuration

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router isis

Syntax [no] router isis [*tag*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables the IS-IS routing protocol and specifies an IS-IS process for IP. The **no** version disables IS-IS routing.

Options
- *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 Global Configuration

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router mld

Syntax [no] router mld

Release Information Command introduced before JunosE Release 7.1.0.

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 **ipv6 router mld** command.

Mode Global Configuration

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router-name

Syntax router-name *vrName*

no router-name [*vrName*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Maps a virtual router to a user domain name. The **no** version deletes the router name parameter, and the router defaults to the default virtual router.

NOTE: This command is deprecated and might be removed completely in a future release. The functionality provided by this command has been replaced by the **auth-router-name** and **ip-router-name** commands.

Options

- *vrName*—Name of the virtual router to map to the user domain name

Mode Domain Map Configuration, Tunnel Group Tunnel Configuration

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router ospf

Syntax [no] router ospf *processId* [vrf *vrfName*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures an OSPF routing process. The **no** version disables an OSPF routing process.

Options
- *processId*—Number, in the range 1–65535, that identifies the OSPF process
- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters; available only in virtual router context, not VRF context

Mode Global Configuration

Related Documentation
- Configuring Routing in the Core Network for VPLS

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router pim

Syntax [no] router pim

Release Information Command introduced before JunosE Release 7.1.0.

Description Creates and enables PIM on a virtual router; accesses PIM router configuration mode. The **no** version deletes PIM from a virtual router.

Mode Global Configuration

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router rip

Syntax [no] router rip

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables RIP routing protocol configuration. The **no** version deletes the RIP process and removes the configuration from the router.

Mode Global Configuration

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rtr

Syntax [no] rtr *rtrIndex*

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the number of the RTR operation to be configured and accesses the RTR Configuration mode. The **no** version removes all configuration information for a specified RTR operation.

NOTE: The no rtr command has a different function than the **no rtr** *rtrIndex* command.

Options
- *rtrIndex*—Number of the operation to be configured, in the range 1–4294967295; there is no default

Mode Global Configuration

Related Documentation
- no rtr on page 86

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rtr reaction-configuration

Syntax no rtr reaction-configuration *rtrIndex*

Release Information Command introduced before JunosE Release 7.1.0.

Description This command has only a **no** version. See the no rtr reaction-configuration command for a complete description and syntax.

Mode Global Configuration

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rtr reaction-configuration action-type

Syntax rtr reaction-configuration *rtrIndex* [action-type *actionType*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets certain actions to occur based on events under control of the RTR. The default is that traps of enabled events are taken. There is no **no** version. See the no rtr reaction-configuration command.

Options

- *rtrIndex*—Number of the operation to be configured, in the range 1–4294967295
- *actionType*—One of the following types:
  - none—No action; selecting this option clears all traps for the given operation
  - trapOnly—Trap only action; this is the default; enabled events trigger the trap

Mode Global Configuration

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rtr reaction-configuration operation-failure

Syntax rtr reaction-configuration *rtrIndex* operation-failure [*operationFailureValue*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables operation-failure reaction. When the type of RTR entry is echo, you can also configure a value that triggers the operation-failure trap. When the type of RTR entry is pathEcho, you cannot configure the operation-failure trap. There is no **no** version. See the no rtr reaction-configuration command.

Options
- *rtrIndex*—Number of the operation to be configured, in the range 1–4294967295
- *operationFailureValue*—Number, in the range 0–15; default value is 1

Mode Global Configuration

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rtr reaction-configuration path-change

Syntax rtr reaction-configuration *rtrIndex* path-change

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables path change reaction. When the type of RTR entry is echo, you cannot configure the path-change trap. There is no **no** version. See the no rtr reaction-configuration command.

Options
- *rtrIndex*—Number of the operation to be configured, in the range 1–4294967295; no default

Mode Global Configuration

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rtr reaction-configuration test-completion

Syntax rtr reaction-configuration *rtrIndex* test-completion

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables test completion reaction. There is no **no** version. See the no rtr reaction-configuration command.

Options
- *rtrIndex*—Number of the operation to be configured, in the range 1–4294967295

Mode Global Configuration

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rtr reaction-configuration test-failure

Syntax rtr reaction-configuration *rtrIndex* test-failure [*testFailureValue*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables test failure reaction to occur. When the type of RTR entry is echo, you can also configure a value that triggers the test-failure trap. There is no **no** version. See the no rtr reaction-configuration command.

Options
- *rtrIndex*—Number of the operation to be configured, in the range 1–4294967295; no default
- *testFailureValue*—Number, in the range 0–15; default value is 1

Mode Global Configuration

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rtr reset

Syntax [no] rtr reset

Release Information Command introduced before JunosE Release 7.1.0.

Description Shuts down all RTR operations and clears the RTR configuration for the given virtual router. The **no** version negates the reset operation.

Mode Global Configuration

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rtr schedule

Syntax [no] rtr schedule *rtrIndex*

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the RTR time parameters for an RTR operation. The **no** version stops the operation by putting it in the pending state. The **no** version also resets the restart-time attribute and the life attribute.

Options
- *rtrIndex*—Number of the operation to be configured, in the range 1–4294967295; no default

Mode Global Configuration

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rtr schedule life

Syntax rtr schedule *rtrIndex* life *lifeValue*

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the length of the RTR probe. There is no **no** version.

Options

- *rtrIndex*—Number of the operation to be configured, in the range 1–4294967295; no default
- *lifeValue*—Number of operations or maximum TTL in the range 1–2147483647; value that depends on the type of the RTR entry
  - If the type of the RTR entry is echo, *lifeValue* relates to the number of operations sent until a test finishes. The default value is 90. If you use 60 operations * 60 seconds, the frequency between each operation that a test completes is 3,600 seconds (one hour).
  - If the type of the RTR entry is pathEcho, *lifeValue* relates to the maximum number of hops used by the traceRoute trap. The default value is 30. If you use 30 (as the maximum hops) * 3 (operations per hop) * 60 seconds frequency between each operation, a test is completed within 3,600 seconds. If a destination is reached in fewer than 30 hops, the test is completed earlier.

Mode Global Configuration

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rtr schedule restart-time

Syntax rtr schedule *rtrIndex* restart-time *restartValue*

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the interval at which the RTR probe restarts, in seconds. There is no **no** version.

Options
- *rtrIndex*—Number of the operation to be configured, in the range 1–4294967295; no default
- *restartValue*—Interval in seconds until test restarts, in the range 0–2147483647; default value is 0, which specifies no restart after the test finishes

Mode Global Configuration

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rtr schedule start-time

Syntax rtr schedule *rtrIndex* start-time { now | pending }

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures an entry's start. There is no **no** version.

Options
- *rtrIndex*—Number of the operation to be configured, in the range 1–4294967295; no default
- now—RTR immediately begins to collect information.
- pending—RTR does not begin to collect information. This is the default.

Mode Global Configuration

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run

Syntax run *execCommand*

Release Information Command introduced before JunosE Release 7.1.0.

Description Allows you to issue an Exec mode command from any configuration command mode. This command functions the same as the **do** command. There is no **no** version.

Options
- *execCommand*—CLI command that you can issue from User Exec or Privileged Exec mode

Mode All configuration command modes

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CHAPTER 7

S Commands

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sample

Syntax sample value-id *mibId*

no sample

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the MIB object that you want to sample for the trigger that you are configuring. The **no** version removes the MIB object from the trigger.

Options
- *mibId*—Object ID for the MIB object that you want to sample, for example, 1.3.6.1.2.1.60.1.2.1.1.7

Mode SNMP Server Event Manager Configuration

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samples-of-history-kept

Syntax samples-of-history-kept *samples*

no samples-of-history-kept

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the number of entries kept in the history table for each RTR operation. The **no** version restores the default value.

Options
- *samples*—Number of entries for each RTR index in the history table; default value is 16 for a pathEcho type and 1 for an echo type

Mode RTR Configuration

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schedule macro

Syntax

schedule macro { interval { frequency *freqInMinutes* | time-of-day *dayTime* [day-of-week *dayOfWeek* | day-of-month *dayOfMonth*] } | at *atTime* [*month day* | *day month*] } *fileName macroName* [*macroArg*]*

no schedule macro [*fileName* [*macroName*]]

Release Information

Command introduced in JunosE Release 9.3.0.

Description

Schedules a macro to run once at a specific time, after a periodic interval, or at a periodic time, such as time of day, day of the week or day of the month. In Global Configuration mode, the setting persists on reboot, but in Privileged Exec mode, it does not persist on reboot. Both methods support high availability. The **no** version unschedules the macro time to run.

Options

- interval—Schedule a macro to run at a specified time once, after a periodic interval, or at a periodic time of the day, day of the week, or day of the month
- *fileName*—Name of the file on which to schedule a time to run
- *freqInMinutes*—Interval start time start in minutes in which to schedule a macro to run
- *dayTime*—Interval time of day for a macro to run
- *dayOfWeek*—Interval day of the week for a macro to run
- *dayOfMonth*—Interval day of the month for a macro to run
- *atTime*—Time at which to start a macro to run
- *macroName*—Name of the interval macro file
- *macroArg*—Name of the macro

Mode

Global Configuration, Privileged Exec

Related Documentation

- *Scheduling Macros* in the *JunosE System Basics Configuration Guide*

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scheduler-profile

Syntax [no] scheduler-profile *schedulerProfileName*

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures a scheduler profile. The router supports up to 1000 scheduler profiles. The **no** version deletes the scheduler profile.

Options
- *schedulerProfileName*—Name of the scheduler profile

Mode Global Configuration

Related Documentation
- Configuring a Scheduler Hierarchy
- Configuring a Scheduler Profile for a Scheduler Node or Queue
- Configuring a Basic Parameter Definition for QoS Administrators

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scramble

Syntax [no] scramble

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables cell scrambling on a T3 Frame interface. The **no** version disables cell scrambling on the interface. If you issue this command, be sure to issue the **dsu mode** and **dsu bandwidth** commands. Otherwise, the interface may drop packets unexpectedly.

Mode Controller Configuration

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sdh

Syntax [no] sdh

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies that the interface supports SDH. The **no** version restores SONET operation on this interface.

Mode Controller Configuration

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secret

Syntax secret [*encryptionType*] *secretText*

no secret

Release Information Command introduced before JunosE Release 7.1.0.

Description Adds a secret to a user entry in the local user database. The new secret replaces an existing secret or password. The **no** version deletes the secret (or password) from the user entry in the local user database.

Options

- *encryptionType*—one of the following:
  - 0—Unencrypted secret (the default)
  - 5—MD5-encrypted secret
- *secretText*—Character string that specifies the secret. The string can contain any alphanumeric character, including spaces, up to 64 characters. Secrets are case sensitive.

Mode Local User Configuration

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secure ip classifier-list

Syntax

secure ip classifier-list *classifierName* { { classifier-auth-id { 0 } } | { [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 secure ip classifier-list *classifierName* [*classifierNumber*] [classifier-auth-id { 0 }]

Release Information

Command introduced in JunosE Release 8.0.0.

Description

Creates or modifies a secure 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.

Options

- *classifierName*—Name of the classifier control list entry
- *classifierAuthId*—Number of the authentication ID to match (0)
- *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

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- any—Matches any source or destination address
- *sourceQualifier*—For UDP or TCP protocols, one of the following protocol-specific classifier parameters. See *Creating or Modifying Classifier Control Lists for IP Policy Lists* in the *JunosE Policy Management Configuration Guide*, 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:

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  - 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

Related Documentation
- Configuring CLI-Based Packet Mirroring

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secure ipv6 classifier-list

Syntax

secure ipv6 classifier-list *classifierName* { { classifier-auth-id { 0 } } | { [traffic-class *trafficClassName*]
[color { green | yellow | red }] [user-packet-class *userPacketClassValue* ecopy.]
[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*] [ipv6-flags *ipv6Flags*]
[precedence *precNum* | dsField *dsFieldNum* | tos *tcNum*] } }

no secure ipv6 classifier-list *classifierName* [*classifierNumber*] [classifier-auth-id { 0 }]

Release Information

Command introduced in JunosE Release 10.1.0.

Description

Creates or modifies a secure 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.

Options

- *classifierName*—Name of the classifier control list entry
- *classifierAuthId*—Number of the authentication ID to match (0)
- *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

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- any—Matches any source or destination address
- *sourceQualifier*—For UDP or TCP protocols, one of the following protocol-specific classifier parameters. See *Creating or Modifying Classifier Control Lists for IP Policy Lists* in the *JunosE Policy Management Configuration Guide*, 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:

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  - 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

Related Documentation
- Configuring CLI-Based Packet Mirroring

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secure ip policy-list

Syntax [no] secure ip policy-list *policyName*

Release Information Command introduced before JunosE Release 7.1.0.

Description Creates or modifies a secure IP policy list. Enters Policy List Configuration mode, enabling you to specify the parameters of the secure IP policy list. If you enter Policy List Configuration mode and then type **exit** without specifying any parameters, the router creates a policy list with a mirror disable rule. Attaching this policy list to an interface results in no packet mirroring. The **no** version removes the specified policy list.

Options
- *policyName*—Name of the secure IP policy list

Mode Global Configuration

Related Documentation
- Configuring CLI-Based Packet Mirroring

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secure ipv6 policy-list

Syntax [no] secure ipv6 policy-list *policyName*

Release Information Command introduced in JunosE Release 10.1.0.

Description Creates or modifies a secure IPv6 policy list. Enters Policy List Configuration mode, enabling you to specify the parameters of the secure IPv6 policy list. If you enter Policy List Configuration mode and then type **exit** without specifying any parameters, the router creates a policy list with a mirror disable rule. Attaching this policy list to an interface results in no packet mirroring. The **no** version removes the specified policy list.

Options
- *policyName*—Name of the secure IPv6 policy list

Mode Global Configuration

Related Documentation
- Configuring CLI-Based Packet Mirroring

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secure l2tp policy-list

Syntax [no] secure l2tp policy-list *policyName*

Release Information Command introduced before JunosE Release 7.1.0.

Description Creates or modifies a secure L2TP policy list. Enters Policy List Configuration mode, enabling you to specify the parameters of the secure L2TP policy list. If you enter Policy List Configuration mode and then type **exit** without specifying any parameters, the router creates a policy list with a mirror disable rule. Attaching this policy list to an interface results in no packet mirroring. The **no** version removes the specified policy list.

Options
- *policyName*—Name of the secure L2TP policy list

Mode Global Configuration

Related Documentation
- Configuring CLI-Based Packet Mirroring

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send

Syntax send { * | *absoluteLineNumber* | console *consoleLineNumber* | vty *vtyLineNumber* } [*message*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Sends a message to one or more terminals. If you begin the message on the same line as the command, the first character is a delimiter; you must end the message with the same delimiter. If you begin the message on another line, you must enter Ctrl+z to end the message. There is no **no** version.

Options

- *—Sends the message to all terminals
- *absoluteLineNumber*—Line number of a terminal to which the message is sent
- *consoleLineNumber*—Line number of a console to which the message is sent
- *vtyLineNumber*—Line number of a vty to which the message is sent
- *message*—Text of message to send; a string of up to 1023 alphanumeric characters

Mode Privileged Exec

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send-more-specific-routes-disable

Syntax [no] send-more-specific-routes-disable

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies that RIP does not send a more-specific route if it has a less-specific route with any metric. The **no** version restores the default condition, wherein RIP always sends a more-specific route even if a less-specific route with a metric is available.

Mode Address Family Configuration, Router Configuration

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send version

Syntax [no] send version [1 | 2 | off]

Release Information Command introduced before JunosE Release 7.1.0.

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

Options
- 1—Specifies RIP version 1 only
- 2—Specifies RIP version 2 only
- off —Turns reception off

Mode Remote Neighbor Configuration

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serial description

Syntax serial description *name*

no serial description

Release Information Command introduced before JunosE Release 7.1.0.

Description Assigns a text description or an alias to a serial HDLC interface. Use the **show interfaces serial** command to display the text description. The **no** version removes the description or alias.

Options
- *name*—Text string or alias of up to 80 characters for the serial interface

Mode Interface Configuration

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server-address

Syntax server-address *address*

no server-address [*address*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the DHCP server address that is sent to DHCP clients. The **no** version removes server address.

Options
- *address*—DHCP server address

Mode DHCP Local Pool Configuration

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server-name

Syntax server-name *serverName*

no server-name

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the hostname expected from the L2TP LNS when you set up a tunnel. The **no** version removes the server name.

Options
- *serverName*—Hostname; can be up to 64 characters in length (no spaces)

Mode Domain Map Tunnel Configuration, Tunnel Group Tunnel Configuration

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service

Syntax service { empty-service-name action *actionValue* | *serviceName* [action *actionValue*] | unknown-service-name action *actionValue* }

no service { empty-service-name | *serviceName* | unknown-service-name }

Release Information Command introduced before JunosE Release 7.1.0.
unknown-service-name keyword added in JunosE Release 10.1.0.

Description Enables you to configure entries for the PPPoE service name table. PPPoE clients use the entries in a PPPoE service name table to request that an AC, such as an E Series router, support certain services. You can add three types of entries to a PPPoE service name table: an empty service name, a custom service name (*serviceName*), and an unknown service name. For empty service name and unknown service name entries, use the **action** keyword to specify that the AC either **drop** or **terminate** all PADI requests from the PPPoE client. For custom entries, the **action** keyword is optional. The default **action** for a custom entry is **terminate**. The **no** version removes the specified service entry from the PPPoE service name table.

Options

- empty-service-name—Specifies an empty service name entry of zero length, indicating that any service is acceptable.
- *actionValue*—One of the following actions for the empty service name entry, custom service name entry, or the unknown service name entry:
  - drop—Directs the AC to ignore all PADI requests and not respond with a PPPoE Active Discovery Offer (PADO) packet
  - terminate—Directs the AC to respond to a PADI request by sending a PADO packet; this is the default action
- *serviceName*—Name of a nonempty service name entry that specifies a custom value, such as an ISP name or class of service; string of up to 31 alphanumeric characters
- unknown-service-name—Specifies a service that has not been configured in the service name table. The default action for this service depends on the service name table configuration. If all the services in the table are configured to **drop**, the default action for the unknown service name entry is **terminate**. If all the services are configured to **terminate**, the default action for the unknown service name entry is **drop**. If both **terminate** and **drop** are configured, all unknown service name entries are dropped by default.

Mode PPPoE Service Name Table Configuration

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service check-config

Syntax [no] service check-config [auto | fileName *fileName* | running-configuration | running-configuration recover | auto-recover]

Release Information Command introduced in JunosE Release 9.3.0.
auto-recover keyword added in JunosE Release 10.3.0.

Description Detects corruption of running configuration on both primary and standby SRP due to fatal duplicate key error. In addition, the command detects corruption of CNF files on the primary SRP for invalid CFG types and invalid information. If the Cyclic Redundancy Check (CRC) value is set for a configuration file, this command calculates and validates the CRC value to ensure that there are no data errors. If the configuration file has errors, the command creates a system log identifying the error.

The **no** version restores the default action, manual detection.

NOTE: You cannot monitor CNF files on the standby SRP.

Options

- auto—Checks the running configuration at regular intervals; cannot be used for CNF files. When auto mode is enabled, if you check the running configuration for corruption manually, a warning message appears. If you confirm you want to check the running configuration in manual mode or ignore the warning message, then manual mode is enabled.
- *fileName*—Name of an existing configuration file (.cnf) that needs to be validated for corruption
- running–configuration—Specifies that the running configuration needs to be validated for corruption; displays a list of corrupt files in the running configuration and the files that are recoverable on the primary SRP and the standby SRP.
- running-configuration recover—Recovers the corrupted configuration files in the running configuration

NOTE: You can recover only the files that the **service check-config running-configuration** command output lists as recoverable.

- auto-recover—Specifies that the running configuration needs to be validated for corruption and the corrupted files need to be recovered; enables auto-recovery of files in the running configuration that are corrupted due to a fatal duplicate key error or the existence of values such as *0XFF* and *0x00* in sectors of a Flash

NOTE: You cannot auto-recover CNF files on the primary and standby SRPs.

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Mode Global Configuration

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service config-monitor-periodicity

Syntax service config-monitor-periodicity *time*

Release Information Command introduced in JunosE Release 9.3.0.

Description Sets the time of the monitoring task for detecting corruption of a running configuration on both the primary and the standby SRP. There is no **no** version.

Options
- *time*—Periodicity value of the monitor task in seconds

Mode Global Configuration

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service ctrl-x-reboot

Syntax [no] service ctrl-x-reboot

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables the Ctrl+x key combination to reboot the router at all times, except that the key combination has no effect if you are accessing the router through a Telnet session. The **no** version restores the default condition, disabled.

Mode Global Configuration

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service-description

Syntax service-description *serviceDescription*

no service-description

Release Information Command introduced before JunosE Release 7.1.0.

Description Provides a description that is associated with the AAA profile. The description can be used for RADIUS authentication and accounting. The **no** version negates the command.

Options
- *serviceDescription*—Description of the service; maximum of 64 characters

Mode AAA Profile Configuration

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service dhcp-external

Syntax [no] service dhcp-external

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables the DHCP external server. The **no** version disables the DHCP external server and does not save the previous settings.

Mode Global Configuration

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service dhcp-local

Syntax [no] service dhcp-local [equal-access | standalone [authenticate]]

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables the DHCP local server. In standalone mode, the **authenticate** keyword enables AAA-based authentication for incoming DHCP clients. The **no** version disables the DHCP local server and does not save the previous settings.

Options

- equal-access—Enables the DHCP local server to work with the SRC (formerly SDX or SSC) or HTTP local server for non-PPP equal access, the default option
- standalone—Configures the router as a DHCP local server
- authenticate—Enables AAA-based authentication of incoming DHCP clients

Mode Global Configuration

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service dhcpv6-local

Syntax [no] service dhcpv6-local [standalone [authenticate]]

Release Information Command introduced before JunosE Release 7.1.0.
standalone and **authenticate** keywords added in JunosE Release 12.2.0.

Description Enables the DHCPv6 local server. In standalone mode, the **authenticate** keyword enables AAA-based authentication for incoming DHCPv6 clients. The **no** version disables the DHCPv6 local server and does not save the previous settings.

Options
- standalone—Configures the router as a DHCPv6 local server
- authenticate—Enables AAA-based authentication of incoming DHCPv6 clients

Mode Global Configuration

Related Documentation
- Authentication and Accounting of IPv6 Subscribers Using the DHCPv6 Local Server Overview
- Interoperation of Authentication of IPv6 Clients and Display of Active Subscriber Information
- Configuring AAA Authentication for DHCPv6 Local Server Standalone Mode

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service-accounting-statistics scheduler-based

Syntax [no] service-accounting-statistics scheduler-based

Release Information Command introduced in JunosE Release 14.1.0.

Description Enables the capability to compute accounting details for subscriber service sessions based on scheduler profiles for policies with rate-limit profiles in hierarchical parent groups on output interfaces. By default, this feature is not enabled. This functionality is effective only for packets that are forwarded at an output interface by a rate-limit profile in a hierarchical parent group and does not apply to packets that are dropped by the rate-limit profile. The **no** version disables the computation of accounting details based on scheduler profiles for policies with rate-limit profiles in hierarchical parent groups on output interfaces.

Mode Global Configuration

Related Documentation

- Configuring Calculation of Service Session Accounting Based on Scheduler Profiles Instead of Rate-Limit Profiles in Hierarchical Parent Groups for Forwarded Packets
- Verifying Computation of Service Session Accounting Based on Scheduler Profiles
- show service-accounting-statistics on page 1153

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service-management install

Syntax [no] service-management install *fileName*.mac

Release Information Command introduced in JunosE Release 7.2.0.

Description Installs the specified Service Manager definition. The **no** version removes the specified definition.

Options
- *fileName*—Name of the service definition macro file, including the .mac extension

Mode Global Configuration

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service-management owner-session

Syntax [no] service-management owner-session *ownerName ownerId* service-session *serviceName* [service-session-profile *profileName*]

Release Information Command introduced in JunosE Release 8.0.0.

Description Activates subscriber service sessions based on the specified owner and owner-generated ID. The **no** version gracefully removes the specified service session for the specified owner session.

Privileged Exec mode creates a dynamic subscriber service session that is deleted after a router reboot. Global Configuration mode creates a persistent service session.

Options

- *ownerName*—Name of the owner for the owner session; AAA for RADIUS-based subscribers
- *ownerId*—Unique ID that is generated by the owner; Acct-Session-ID for AAA subscriber sessions
- *serviceName*—Name of the service session to use
- *profileName*—Name of the service session profile to use for the service session

Mode Global Configuration, Privileged Exec

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service-management service-session-profile

Syntax [no] service-management service-session-profile *profileName*

Release Information Command introduced in JunosE Release 7.2.0.

Description Creates a new Service Manager service session profile or specifies the name of an existing service session profile, then enters Service Session Profile Configuration mode. The **no** version removes the service session profile.

Options
- *profileName*—Name of the service session profile

Mode Global Configuration

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service-management subscriber-session

Syntax [no] service-management subscriber-session *subscriberName* interface *interfaceType interfaceSpecifier*

Release Information Command introduced in JunosE Release 7.2.0.
Privileged Exec mode added in JunosE Release 8.0.0.

Description Activates a subscriber session for the specified subscriber. The **no** version gracefully removes the subscriber session and all service sessions associated with this subscriber session.

Privileged Exec mode creates a dynamic subscriber session that is deleted after a router reboot. Global Configuration mode creates a persistent subscriber session.

NOTE: **Always activate at least one service session for a subscriber session. The ability to create a subscriber session without a service session (by omitting the service-session keyword) is not currently supported.**

Options

- *subscriberName*—Name of the subscriber for this subscriber session
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5

Mode Global Configuration, Privileged Exec

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service-management subscriber-session force

Syntax no service-management subscriber-session *subscriberSessionId* force

Release Information Command introduced in JunosE Release 7.2.0.

Description This command has only a **no** version. See the no service-management subscriber-session force command for a complete description and syntax.

Mode Global Configuration

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service-management subscriber-session service-session

Syntax [no] service-management subscriber-session *subscriberName* interface *interfaceType interfaceSpecifier* service-session *serviceName* | [service-session-profile *profileName*]

Release Information Command introduced in JunosE Release 7.2.0.
Privileged Exec mode added in JunosE Release 8.0.0.

Description Activates a subscriber session and service session for the specified subscriber. The **no** version gracefully removes all service sessions or the specified service session.

Privileged Exec mode creates a dynamic subscriber session that is deleted after a router reboot. Global Configuration mode creates a persistent subscriber session.

Options

- *subscriberName*—Name of the subscriber for this subscriber session
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *serviceName*—Name of the service session to use for this subscriber session
- *profileName*—Name of the service session profile to use for this service session

Mode Global Configuration, Privileged Exec

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service manual-commit

Syntax [no] service manual-commit

Release Information Command introduced before JunosE Release 7.1.0.

Description Stops the router from automatically saving configuration changes to nonvolatile storage. Places the router into Manual Commit mode; this mode has no effect on the CLI prompt. Causes an immediate save of configuration data not yet committed to nonvolatile storage. If you issue this command while high availability is initializing, the CLI notifies you of the state and requests that you try again later. The **no** version returns the E Series router to Automatic Commit mode (with no effect on the CLI prompt).

Mode Global Configuration

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service password-encryption

Syntax [no] service password-encryption

Release Information Command introduced before JunosE Release 7.1.0.

Description Directs the router to encrypt passwords that are saved in the configuration file. The command should be used as a simple cipher to prevent unauthorized users from viewing passwords. The **no** version removes the encryption assignment.

Use of this command prevents casual observers from viewing passwords, for example, in data obtained from **show config** displays. The command is not intended to provide protection from serious analysis. This command does not apply to passwords set with **enable secret**, **enable password**, or **password** (Line Configuration mode). This command does apply to authentication key passwords and BGP neighbor passwords.

Mode Global Configuration

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service show-config

Syntax service show-config format { 1 | 2 }

no service show-config format

Release Information Command introduced before JunosE Release 7.1.0.

Description Formats **show configuration** command output. The **no** version reverts the **show configuration** command format to its default (format 1).

Options
- 1—Format of the original **show configuration** command output
- 2—Format enhancement to the **show configuration** command that can significantly reduce the amount of time it takes to generate and display output for configurations that contain three or more virtual routers and a large number of interfaces

Mode Global Configuration

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service timestamps

Syntax service timestamps log datetime [show-timezone [localtime]]

no service timestamps [log]

Release Information Command introduced before JunosE Release 7.1.0.

Description Formats timestamps associated with log messages. The **no** version removes timestamps from log messages.

Options
- log—Indicates that a timestamp will appear on log messages
- datetime—Displays the date and time
- show-timezone—Displays the time zone
- localtime—Displays the timestamp in local time

Mode Global Configuration

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service unattended-password-recovery

Syntax [no] service unattended-password-recovery

Release Information Command introduced before JunosE Release 7.1.0.

Description Allows you to delete all passwords and secrets from the console without being physically present at the router. When executed, this command changes the behavior of the erase secrets command, which will not take any parameters and will not be available through a vty session. The **no** version reverts erase secrets to factory default settings.

Mode Global Configuration

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session-out-of-resource-result-code-override

Syntax [no] session-out-of-resource-result-code-override

Release Information Command introduced in JunosE Release 9.2.0.

Description Overrides out-of-resource result codes 4 [Call failed due to lack of appropriate facilities being available (temporary condition)] and 5 [Call failed due to lack of appropriate facilities being available (permanent condition)] with code 2 (Call disconnected for the reason indicated in error code) on a router configured as an LNS. The **no** version halts the overriding of codes 4 and 5.

Mode L2TP Destination Profile Host Configuration

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session-timeout

Syntax [no] session-timeout *timeOutValue*

Release Information Command introduced before JunosE Release 7.1.0.

Description Defines the ANCP session timeout value (in seconds). The **no** version reverts the session timeout to its default setting (25 seconds).

Options
- *timeOutValue*—Session timeout in seconds, in the range 1–25; default value is 25 seconds

Mode L2C Configuration

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sessions-limit-group

Syntax [no] sessions-limit-group *groupName*

Release Information Command introduced before JunosE Release 12.2.0.

Description Defines a session limit group. The **no** version removes the session limit group.

NOTE: Under each destination profile, you can define a maximum of 4096 session limit groups.

Options
- *groupName*—Name of the group

Mode L2TP Destination Profile Configuration, L2TP Destination Profile Host Configuration

Related Documentation
- Configuring Groups for LNS Sessions

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set

Syntax set object
{ context-name *contextName* [wildcard] | id *mibId* | value *objectValue* }

no set [object { context-name | id | value }]

Release Information Command introduced before JunosE Release 7.1.0.

Description Performs an SNMP set operation under certain event conditions. The **no** version removes the set operation.

Options
- *contextName*—Context name of the MIB object SNMP agent
- wildcard—Specifies the context name as a wildcard
- *mibId*—MIB object ID that you want to set; for example, 1.3.6.1.2.1.60.1.2.1.1.7
- *objectValue*—Value to which you want to set the configured MIB object

Mode SNMP Event Manager Configuration

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set admission-bandwidth

Syntax

set admission-bandwidth { *bandwidthValue* | adaptive }

no set admission-bandwidth

Release Information

Command introduced in JunosE Release 7.1.0.
adaptive keyword added in JunosE Release 7.2.0.

Description

Sets a specific multicast bandwidth for admission control or defines the bandwidth as adaptive (automatically sensed). The **no** version removes the set clause from a route map.

Options

- *bandwidthValue*—Number in the range 0–4294967259 kilobits per second used for admission control
- adaptive—Defines the admission bandwidth as being automatically sensed

Mode

Route Map Configuration

Related Documentation

- Defining a Multicast Bandwidth Map
- Example: Configuring a Multicast Bandwidth Map
- Example: Configuring an IPv6 Multicast Bandwidth Map
- IPv6 Multicast Bandwidth Map Overview

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set as-path prepend

Syntax set as-path prepend { list *listName* | *asPathNumber* [*asPathNumber*]* }

no set as-path prepend

Release Information Command introduced before JunosE Release 7.1.0.

Description Prepends one or more AS numbers or a list of AS numbers to the AS path for BGP routes. The **no** version removes the set clause from a route map.

Options

- *listName*—Name of a list of AS path numbers; string of up to 32 characters
- *asPathNumber*—Number, in the range 1–65535, that appends the string following the keyword **prepend** to the AS path of the route that is matched by the route map. Applies to outbound BGP route maps.
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Route Map Configuration

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set automatic-tag

Syntax [no] set automatic-tag

Release Information Command introduced before JunosE Release 7.1.0.

Description Automatically computes the tag value. The **no** version removes the set clause from a route map.

Mode Route Map Configuration

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set comm-list delete

Syntax set comm-list { *communityList* | *regularExpression* } delete

no set comm-list

Release Information Command introduced before JunosE Release 7.1.0.

Description Removes communities specified by the community list from the community attribute of routes matching the route map. The **no** version removes the set clause from a route map.

Options
- *communityList*—Community list identifier; a string of up to 32 characters
- *regularExpression*—Regular expression that matches the community

Mode Route Map Configuration

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set community

Syntax set community { list *communityListName* [additive] | none }

set community { *communityNumber* | *knownCommunity* | *asCommunNumber* }
[*communityNumber* | *knownCommunity* | *asCommunNumber*]* [additive]

no set community

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the BGP community attribute to one or more community numbers or a list of community numbers. The **no** version removes the set clause from a route map.

Options

- *communityListName*—Name of a community; a string of up to 32 characters
- additive—Adds the community number to the community list
- none—Removes the community attribute
- *communityNumber*—Number, in the range 1– 4294967295, that specifies the community number
- *knownCommunity*—Any of the following well-known communities; the Internet community is not an option:
  - local-as—Prevents advertisement outside of the local AS
  - no-advertise—Prevents advertisement to any peer
  - no export—Prevents advertisement beyond the BGP confederation boundary
- *asCommunNumber*—AS community number in the format *AA:NN*:
  - *AA*—Number, in the range 1–65535, that identifies an AS
  - *NN*—Number, in the range 1–65535, that uniquely identifies a community within an AS
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Route Map Configuration

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set dampening

Syntax set dampening *halfLife reuse suppress maxSuppressTime* [*halfLifeUnreachable*]

no set dampening

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables route flap dampening and optionally specifies dampening parameters for routes passing through the route map. The **no** version removes the set clause from a route map.

Options

- *halfLife*—Half-life period in minutes, in the range 1–45; default value is 10. When a BGP route has been assigned a penalty, the penalty is decreased by half after each half-life period. Each time a route flaps, the router configured for route flap dampening assigns the route a penalty. Penalties are cumulative. BGP stores the penalty for all reachable and unreachable routes that have experienced recent flaps.
- *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; default value is 60; maximum amount of time a route can be suppressed
- *halfLifeUnreachable*—Alternate half-life period in minutes for unreachable routes; a number in the range 1–45; default value is 20. If you do not specify this value, the router uses the same half-life period for both reachable and unreachable routes.

Mode Route Map Configuration

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set dhcp relay

Syntax

To create the DHCP relay independent of any DHCP servers and to explicitly delete the DHCP server

[no] set dhcp relay

To create and disable the DHCP relay for a specific DHCP server

set dhcp relay { *dhcpServerAddress* [proxy] | agent [circuit-ID-only | remote-ID-only] |inhibit-access-route-creation | discard-access-routes { all | *interfaceType interfaceSpecifier* | | unknown } }

no set dhcp relay { *dhcpServerAddress* | agent | inhibit-access-route-creation }

Release Information

Command introduced before JunosE Release 7.1.0.
Command used without any keywords introduced in JunosE Release 8.2.0.
unknown keyword added in JunosE Release 9.2.0.

Description

When used without any optional keywords, creates and enables DHCP relay in the current virtual router independent of any DHCP servers.

When used with optional keywords, adds a new DHCP/BOOTP server and specifies that the E Series router is either a DHCP relay or DHCP relay proxy between the DHCP client and DHCP server. Optionally, configures the DHCP relay agent, including specifying the DHCP relay agent information (option 82) that is included in all packets forwarded to the DHCP server.

If you issue the **set dhcp relay** command when a local server has been configured, the local server is deactivated.

The **no** version used without other keywords deletes the DHCP relay agent and its configuration from the virtual route. The **no** version used with optional keywords removes the specified server or disables the specified relay agent configuration.

NOTE: The **set dhcp relay agent** command, when used to configure option 82 suboptions, is a legacy command, which JunosE Software continues to support to provide backward-compatibility for existing scripts. We recommend that you use the **dhcp relay agent sub-option** command for new option 82 suboption configurations.

Options

- *dhcpServerAddress*—IP address of the DHCP server
- proxy—Specifies that the router is a DHCP relay proxy between the DHCP client and DHCP server; if omitted, the router functions as a DHCP server
- agent—Adds the agent information suboptions (circuit-ID and remote-ID) to every packet the router relays from a DHCP client to a DHCP server

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- circuit-ID-only—Specifies circuit ID suboption (suboption 1) only
- remote-ID-only—Specifies remote-ID suboption (suboption 2) only
- inhibit-access-route-creation—Specifies that host routes are not installed; enforces consistent state of route/client database
  - In relay mode, removes all installed host routes from IP; deletes all host routes data in the routing table and NVS; stops accumulating host route information
  - In relay proxy mode, removes all installed host routes from IP; deletes all NVS client data and stops installing host routes for newly bound clients in IP; preserves the routing table client data and continues preservation of newly bound clients in the routing table
- discard-access-routes—Removes existing access routes from the routing table and from NVS
- all—Removes all existing access routes
- *interfaceType*—Interface type whose access routes should be discarded; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- unknown—Removes existing host routes from unknown (nonexistent) interfaces—dynamic interfaces for which DHCP relay retains route information after these interfaces have been deleted

Mode Global Configuration

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set dhcp relay agent sub-option

Syntax set dhcp relay agent sub-option { circuit-id | remote-id | vendor-specific { layer2-circuit-id | user-packet-class } }

no set dhcp relay agent sub-option { circuit-id | remote-id | vendor-specific [layer2-circuit-id | user-packet-class] }

Release Information Command introduced in JunosE Release 8.0.0.

Description Configures DHCP relay and DHCP relay proxy to add values into the DHCP relay agent information option (option 82) of the packets sent to a DHCP server. The **no** version restores the default configuration, in which the specified values are not relayed to the DHCP server.

NOTE: We recommend that you use this command for new option 82 suboption configurations. However, JunosE Software continues to support the **set dhcp relay agent** command, with option 82 suboptions, to provide backward-compatibility for existing scripts.

Options

- circuit-id—Specifies the Agent Circuit ID suboption (suboption 1)
- remote-id—Specifies the Agent Remote ID suboption (suboption 2)
- vendor-specific—Specifies the Vendor-Specific suboption (suboption 9)
- layer2-circuit-id—Specifies the SVLAN ID or VLAN ID or both for Ethernet interfaces or the VPI/VCI for ATM 1483 interfaces
- user-packet-class—Specifies the user packet class, whose value is configured by the JunosE Software layer 2 policy application

Mode Global Configuration

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set dhcp relay assign-giaddr-source-ip

Syntax [no] set dhcp relay assign-giaddr-source-ip

Release Information Command introduced in JunosE Release 7.1.0.

Description Configures DHCP relay and DHCP relay proxy to assign the gateway IP address (giaddr) to the source IP address of traffic they send to DHCP servers. The **no** version restores the default, in which the DHCP relay and DHCP relay proxy do not assign the giaddr to the source IP address.

Mode Global Configuration

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set dhcp relay broadcast-flag-replies

Syntax [no] set dhcp relay broadcast-flag-replies

Release Information Command introduced in JunosE Release 8.1.0.

Description Configures DHCP relay and DHCP relay proxy to use the setting of the broadcast flag in the DHCP request packet to control how DHCP Offer reply packets and ACK and NAK reply packets are transmitted to DHCP clients during the discovery process. If the broadcast flag is set in the request packet, DHCP relay and DHCP relay proxy broadcast DHCP reply packets to clients. If the broadcast flag is not set in the request packet, DHCP relay and DHCP relay proxy use the layer 2 unicast transmission method to send DHCP reply packets using the client's layer 2 (MAC) address and layer 3 (IP) unicast address. The **no** version causes the router not to use the broadcast flag setting and restores the default behavior, which broadcasts DHCP Offer reply packets and ACK and NAK reply packets to all clients during the discovery process.

NOTE: The **set dhcp relay broadcast-flag-replies** command and the set dhcp relay layer2-unicast-replies command are mutually exclusive. If you attempt to issue the **set dhcp relay broadcast-flag-replies** command when the set dhcp relay layer2-unicast-replies command is already in effect, the operation fails and the router displays an error.

Mode Global Configuration

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set dhcp relay giaddr-selects-interface

Syntax [no] set dhcp relay giaddr-selects-interface

Release Information Command introduced in JunosE Release 8.0.0.

Description Configures DHCP relay to use information in the giaddr in the DHCP ACK packets that are generated by the server and destined for the DHCP client. The DHCP server uses this information to determine the primary interface that is used to optionally build dynamic subscriber interfaces.

The **no** version restores the default that builds dynamic subscriber interfaces on the IP interface on which DHCP client discover packets are received.

Mode Global Configuration

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set dhcp relay layer2-unicast-replies

Syntax [no] set dhcp relay layer2-unicast-replies

Release Information Command introduced in JunosE Release 7.2.0.

Description Configures DHCP relay and DHCP relay proxy to use the optional layer 2 unicast and layer 3 broadcast transmission method to transmit DHCP Offer reply packets and ACK reply packets to DHCP clients during the discovery process. The **no** version restores the default method that broadcasts DHCP Offer reply packets and ACK reply packets to all DHCP clients during the discovery process.

NOTE: The **set dhcp relay layer2-unicast-replies** command and the **set dhcp relay broadcast-flag-replies** command are mutually exclusive. If you attempt to issue the **set dhcp relay layer2-unicast-replies** command when the **set dhcp relay broadcast-flag-replies** command is already in effect, the operation fails and the router displays an error.

Mode Global Configuration

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set dhcp relay max-client-packet-rate

Syntax [no] set dhcp relay max-client-packet-rate [*packetsPerSecond*]

Release Information Command introduced in JunosE Release 11.2.0.

Description Configures DHCP relay to limit the maximum number of client packets that DHCP relay processes per second. The **no** version returns to the default, in which DHCP relay processes 4096 packets per second.

Options
- *packetsPerSecond*—Number of client packets that are processed per second in the range 0–4096.

Mode Global Configuration

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set dhcp relay options

Syntax set dhcp relay options { hostname | vrname | exclude-subinterface-id }

no set dhcp relay options [hostname | vrname | exclude-subinterface-id]

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the relay agent option 82 information that the router adds to DHCP packets before it relays the packets to the DHCP server. You can add either the E Series hostname or the virtual router name to the front of the Circuit-Id field. You cannot add both hostname and virtual router name. The last option specified is the one in use. You can also strip the subinterface ID from the Interface-Id field. The **no** version returns to the default, in which no information is added to the Circuit-Id field and/or the subinterface ID is not stripped from the interface string.

Options

- hostname—Adds the router's hostname to the front of the Circuit-Id field; the hostname is separated from the circuit information by a colon
- vrname—Adds the router's virtual router name to the front of the Circuit-Id field; the virtual router name is separated from the circuit information by a colon
- exclude-subinterface-id—Strips the subinterface ID from the Interface-Id field

Mode Global Configuration

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set dhcp relay override

Syntax [no] set dhcp relay override { agent-option | giaddr }

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures DHCP relay to override the relay agent option 82 or giaddr values in packets destined for a DHCP server. The **no** version returns to the default, in which the option 82 or giaddr value is not overridden.

Options
- agent-option—Overrides the option 82 information
- giaddr—Overrides giaddr

Mode Global Configuration

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set dhcp relay preserve-trusted-client-option

Syntax [no] set dhcp relay preserve-trusted-client-option

Release Information Command introduced in JunosE Release 7.1.0.

Description Configures DHCP relay and DHCP relay proxy to prevent option 82 information from being stripped from packets destined for a trusted client. The **no** version restores the default, in which the option 82 information is stripped from the packets.

Mode Global Configuration

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set dhcp relay proxy send-first-offer

Syntax [no] set dhcp relay proxy send-first-offer

Release Information Command introduced in JunosE Release 8.0.0.

Description Configures the DHCP relay proxy to immediately send the first DHCP offer it receives from any DHCP server to the DHCP client. The **no** version restores the default value, in which DHCP relay proxy sends the single most appropriate address offer it receives from multiple DHCP servers.

Mode Global Configuration

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set dhcp relay proxy timeout

Syntax set dhcp relay proxy timeout *hours*

no set dhcp relay proxy timeout

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the time that the DHCP relay proxy waits for a renewal message from the DHCP client after a reboot or switchover occurs. The **no** version restores the default value.

Options
- *hours*—Number of hours for the timeout, in the range 1–168 (1 hour to 7 days); default value is 72 hours

Mode Global Configuration

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set dhcp relay trust-all

Syntax [no] set dhcp relay trust-all

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables the DHCP relay trust-all method. When the trust-all method is enabled, the DHCP relay processes packets that are destined for a DHCP server as if they are from trusted sources. The **no** version restores the default, which disables the trust-all method.

Mode Global Configuration

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set dhcp vendor-option

Syntax To set the default action to take when the option 60 string does not match a configured vendor-option string:

[no] set dhcp vendor-option default [drop | local-server | proxy-client | relay *address* | relay-server-list]

To set the action to take when the option 60 string matches a configured vendor-option string:

[no] set dhcp vendor-option { equals | starts-with } *string* [local-server | relay *address*]

Release Information Command introduced in JunosE Release 8.2.0.

Description Configures vendor-option strings that control DHCP client traffic. Creates DHCP vendor-option servers by configuring DHCP relay to match DHCP option 60 strings and to specify the action the router takes when it receives DHCP option 60 strings. The **no** version disables the setting.

Options

- drop—Discards packets
- local-server—Forwards packets to the DHCP local server
- proxy-client—Forwards packets to the DHCP proxy client server
- *address*—IP address of the vendor-option server to which packets are forwarded
- relay-server-list—Forwards packets to all non-vendor option DHCP servers. The relay-server-list consists of all non-vendor option servers. Non-vendor option servers are those servers that are configured with the **set dhcp relay** command but not with the **set dhcp vendor-option** command.
- equals—Configures a string that must be matched exactly for option 60 processing
- starts-with—Configures the string that is matched from left-to-right for option 60 processing
- *string*—Option 60 string to match; up to 254 hexadecimal characters

Mode Global Configuration

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set distance

Syntax set distance *distance*

no set distance

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures an administrative distance to apply to routes that match the route map. The **no** version removes the set clause from a route map.

NOTE: Setting a distance in a route map is useful only when it is set on a route being installed into the routing table. Distance is used to establish preference between routes to the same prefix to identify the best route to that prefix. Setting distance in any other circumstance has no effect.

Options

- *distance*—Administrative distance in the range 0–255

Mode Route Map Configuration

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set extcommunity

Syntax set extcommunity
{ rt *extCommValue* [*extCommValue*]* [additive] } | { soo *extCommValue* }

no set extcommunity

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the BGP extended communities attribute. The **no** version removes the set clause from a route map.

Options

- rt—Specifies a route-target extended community, which 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 extended community, which consists of one or more routers that inject into BGP a set of routes that carry the extended-community attribute
- *extCommValue*—Number identifying the extended community in one of the following formats:
  - *AS:nn*—Autonomous system number, in the range 1–65535, followed by an integer in the range 1–4294967295; for example, 320:72358
  - *AS:nn*—Autonomous system number, in the range 1–4294967295 followed by an integer in the range 1–65535; for example, 84511:45
  - *ipAddress:nn*—Dotted decimal IP address followed by an integer in the range 1–65535; for example, 10.10.21.5:1256
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line
- additive—Adds the specified extended communities to any previously configured for the attribute; if omitted, the specified extended communities replace any previously configured for the attribute

Mode Route Map Configuration

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set ip interface-profile

Syntax set ip interface-profile *profileName*

no set ip interface-profile

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies a dynamic IP interface profile that is used in the route map. The **no** version removes the interface profile from the route map.

Options
- *profileName*—Name of the dynamic profile

Mode Route Map Configuration

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set ip next-hop

Syntax set ip next-hop { *ipAddress* | interface *interfaceType interfaceSpecifier* | *peerAddress* }

no set ip next-hop [*ipAddress* | *peerAddress*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Indicates where to send packets that pass a match clause of a route map for policy routing. The **no** version removes the set clause from a route map.

NOTE: Beginning with JunosE Release 7.1.0, this command is not supported for route maps used by the table-map command.

Options

- *ipAddress*—IP address of next hop to which packets are sent; does not need to be an adjacent router
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *peerAddress*—On outbound route maps, disables the next hop-calculation by setting the next hop to the IP address of the BGP speaker; on inbound route maps, overrides any third-party next-hop configuration by setting the next hop to the IP address of the peer

Mode Route Map Configuration

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set ip service-profile

Syntax set ip service-profile *profileName*

no set ip service-profile

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the name of a subscriber's service profile that is used in the route map. The **no** version removes the service profile from the route map.

Options
- *profileName*—Name of service profile

Mode Route Map Configuration

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set ip source-prefix

Syntax [no] set ip source-prefix *ipAddress ipMask* { deny | primary }

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies a source address range that will be inserted into a specific interface and the action to take with the range. The **no** version removes the source address range from the route map.

Options

- *ipAddress*—IP address for the range
- *ipMask*—IP address mask for the range
- deny—Drops the addresses that appear in the source address range
- primary—Associates the source prefix with the primary IP interface

Mode Route Map Configuration

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set ipv6 next-hop

Syntax [no] set ipv6 next-hop *ipv6Address* [*localAddress*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Indicates where to send packets that pass a match clause of a route map for IPv6 policy routing. The **no** version removes the set clause from a route map.

Options

- *ipv6Address*—IPv6 address of next hop to which you want to send packets; does not need to be an adjacent router
- *localAddress*—IP address of the specific interface

Mode Route Map Configuration

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set level

Syntax set level *atLevel*

no set level

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies where to import routes when all of a route map's match criteria are met. The **no** version removes the set clause from a route map.

Options

- *atLevel*—Specifies one of the following levels:
  - level-1—Imports routes into a level 1 area
  - level-1-2—Imports routes into a level 1 and a level 2 area
  - level-2—Imports routes into a level 2 subdomain
  - stub-area—Imports routes into an OSPF NSSA area
  - backbone—Imports routes into an OSPF backbone area

Mode Route Map Configuration

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set local-preference

Syntax set local-preference *value*

no set local-preference

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies a preference value for the AS path. The **no** version removes the set clause from a route map.

Options
- *value*—Preference number, in the range 0–4294967295

Mode Route Map Configuration

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set metric

Syntax set metric [*+relValue* | *-relValue* | *absValue*]

no set metric

Release Information Command introduced before JunosE Release 7.1.0.

Description Modifies the metric value (for BGP, the MED) for a route that matches the route map by applying a relative or absolute metric. The **no** version removes the set clause from a route map.

NOTE: You cannot have an absolute and a relative metric within the same route map sequence. Issuing either command overrides any previously configured metric in the route map.

Options

- +—Specifies that the value is added to the metric for routes matching the route map; immediately precedes the metric value with no intervening space
- ––Specifies that the value is subtracted from the metric for routes matching the route map; immediately precedes the metric value with no intervening space
- *relValue*—Number, in the range 0–4294967295
- *absValue*—Number, in the range 0–4294967295

Mode Route Map Configuration

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set metric-type

Syntax set metric-type *atMetric*

no set metric-type

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the metric type for the destination routing protocol. The **no** version removes the set clause from a route map.

Options

- *atMetric*—Specifies the metric type from the following choices:

  For BGP:

  - external—Reverts to the normal BGP rules for propagating the MED; this is the BGP default
  - internal—Sets the MED of a received route that is being propagated to an external peer equal to the IGP cost of the indirect next hop

  For IS-IS:

  - external—Only the metric of the route itself is considered for comparison
  - internal—Both the metric of the route and the cost to the router that advertised the route are considered for comparison; this is the IS-IS default

  For OSPF:

  - 1—Cost of the external routes is equal to the sum of all internal costs and the external cost
  - 2—Cost of the external routes is equal to the external cost alone; this is the OSPF default

Mode Route Map Configuration

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set mpls-label

Syntax [no] set mpls-label

Release Information Command introduced in JunosE Release 7.1.0.

Description Configures BGP to advertise prefixes that match the route map as labeled prefixes. The **no** version removes the configuration.

Mode Route Map Configuration

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set origin

Syntax set origin *atOrigin*

no set origin

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the BGP origin of an advertised route. The **no** version removes the set clause from a route map.

Options
- *atOrigin*—Specifies the origin from the following choices:
  - egp—Remote exterior gateway protocol
  - igp—Local interior gateway protocol
  - incomplete—Origin unknown

Mode Route Map Configuration

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set-overload-bit

Syntax [no] set-overload-bit [on-startup *seconds* | on-startup wait-for-bgp [*bgpSeconds*]]

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the overload bit, indicating to other IS-IS routers not to use this router as an intermediate hop in their SPF calculations. The **no** version restores the default value, clearing the overload bit.

Options

- on-startup—Sets the overload bit only after a system reload; prevents other routers from routing through this router before it is fully operational
- *seconds*—Period after the reload during which the overload bit is set, in the range 5–86400 seconds; the overload bit is cleared when the period expires
- wait-for-bgp—Specifies that the overload bit is not cleared until BGP has completed convergence
- *bgpSeconds*—Maximum period to wait for BGP to converge, in the range 5–86400 seconds with a default value of 600 seconds; the overload bit is cleared when the period expires

Mode Router Configuration

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set priority

Syntax set priority *priorityValue*

no set priority

Release Information Command introduced in JunosE Release 8.2.0.

Description Configures a priority value for the <S, G>data stream. Dynamic multicast admission control enables only prioritized groups to join the interface after the configured priority limit is reached on the physical port. The system records the priority when a new <S, G> entry is created. The **no** version removes the priority value.

Options
- *priorityValue*—Priority value for the <S, G> data stream; the default is 0

Mode Route Map Configuration

Related Documentation
- Defining a Multicast Bandwidth Map
- Dynamic Port Admission Bandwidth Control

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set qos-bandwidth

Syntax

set qos-bandwidth { *bandwidthValue* | adaptive }

no set qos-bandwidth

Release Information

Command introduced in JunosE Release 7.1.0.
adaptive keyword added in JunosE Release 7.2.0.

Description

Sets a multicast bandwidth for QoS adjustment or defines the bandwidth as adaptive (automatically sensed). The **no** version removes the set clause from a route map.

Options

- *bandwidthValue*—Number, in the range 0–4294967259 kilobits per second, used for QoS adjustment
- adaptive—Defines the QoS bandwidth as being automatically sensed

Mode

Route Map Configuration

Related Documentation

- Defining a Multicast Bandwidth Map
- Example: Configuring a Multicast Bandwidth Map
- Example: Configuring an IPv6 Multicast Bandwidth Map
- IPv6 Multicast Bandwidth Map Overview

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set route-class

Syntax set route-class *routeClass*

no set route-class

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the route class attribute for a route map. The **no** version deletes the route class attribute.

Options
- *routeClass*—Value in the range 0–255

Mode Route Map Configuration

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set route-type

Syntax set route-type { internal | internal-intra | internal-inter | external }

no set route-type

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets routes of the specified type. The **no** version removes the set clause from a route map.

Options
- internal—Internal route (including OSPF intra-area and interarea)
- internal-intra—Intra-area route
- internal-inter—Interarea route
- external—External route (BGP and OSPF type 1/2)

Mode Route Map Configuration

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set tag

Syntax set tag *tagValue*

no set tag

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the tag value of the destination routing protocol. The **no** version removes the set clause from a route map.

Options
- *tagValue*—Preference number, in the range 0–4294967295

Mode Route Map Configuration

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set threshold

Syntax set threshold *thresholdValue*

no set threshold

Release Information Command introduced in JunosE Release 8.2.0.

Description Configures a threshold value for multicast VPN applications. The **no** version removes the threshold value.

Options
- *thresholdValue*—Threshold value for multicast VPN applications

Mode Global Configuration

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set weight

Syntax [no] set weight *value*

no set weight

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the BGP weight for the routing table. Overrides the weights assigned by using the neighbor weight and neighbor filter-list commands. The **no** version removes the set clause from a route map.

Options
- *value*—Weight value in the range 0–4294967295

Mode Route Map Configuration

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shadow-node

Syntax [no] *typeOfInterface* shadow-node [group *trafficClassGroup* | scheduler-profile *schedulerProfileName*]*

Release Information Command introduced in JunosE Release 8.0.0.

Description Specifies that a shadow node be configured for each interface of the given interface type. The **no** version removes this rule from the QoS profile.

Options

- *typeOfInterface*—Interface types for shadow nodes to be configured: atm, atm-vc, atm-vp, bridge, ethernet, fr-vc, ip, ip-tunnel, ipv6, l2tp-session, l2tp-tunnel, lsp, serial, server-port, svlan, vlan
- *trafficClassGroup*—Name of the traffic-class group
- *schedulerProfileName*—Name of the scheduler profile
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode QoS Profile Configuration

Related Documentation

- Configuring Shadow Nodes

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shaping-rate

Syntax shaping-rate *shapingRate* [*operator operandValue*]* [bps | kbps]
[burst *burstSize* [milliseconds | bytes]]

shaping-rate *operandValue* [*operator operandValue*]* [bps | kbps]

no shaping-rate

Release Information Command introduced before JunosE Release 7.1.0.
milliseconds and **bytes** keywords added in JunosE Release 7.1.0.
bps and **kbps** keywords added in JunosE Release 8.0.0.

Description Sets the shaping rate and burst size. The **no** version deletes the shaping rate.

Options

- *shapingRate*—Specifies a QoS parameter definition name or a constant shaping rate in the range of 1–1,000,000,000 bps/Kbps when used separately. You can set the constant shaping rate to vary from 1 bps to 1000 Gbps (which is denoted by entering 1,000,000,000 Kbps in the CLI for this command). It specifies a QoS parameter definition name or any integer value to be used in the mathematical expression when used with the *operator* and *operandValue* variables.
- *operator*—Mathematical function
- *operandValue*—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
- bps—Specifies shaping rate in bits per second
- kbps—Specifies shaping rate in kilobits per second

NOTE: The lower and higher limits for the shaping rate range apply to both the **bps** and **kbps** keywords available with this command. For example, if you want to set the shaping rate to 1 mbps, you can either enter 1000 as the value for the *shapingRate* argument and suffix it with the **kbps** keyword, or enter 1000000 as the value for the *shapingRate* argument and suffix it with the **bps** keyword. Both the methods of configurations result in the same shaping rate value to be set.

- *burstSize*—Number, in the range 0–522240 (0–510 KB); 0 enables the router to select an applicable default value
- milliseconds—Specifies burst size in milliseconds
- bytes—Specifies burst size in bytes

Mode Scheduler Profile Configuration

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Related Documentation

- Configuring Rate Shaping for a Scheduler Node or Queue
- Configuring Port Shaping
- Configuring a Basic Parameter Definition for QoS Administrators

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shared-shaping-constituent

Syntax shared-shaping-constituent [priority [*priorityValue*] | weight [*weightValue*]]

no shared-shaping-constituent

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the attributes of implicit and explicit shared-shaping constituents and specifies explicit shared-shaping constituents. Constituents default to priority with a priority value of 8. Priority constituents are ordered before weighted constituents. The **no** version deletes the attributes or explicit constituent.

Options

- *priorityValue*—Value, in the range 1–8, that specifies the order in which the constituent can claim bandwidth from among all priority constituents; a lower value correlates to a higher claim; 8 is the default value
- *weightValue*—Value, in the range 1–31, that specifies the order in which the constituent can claim bandwidth from among all weighted constituents; a lower value correlates to a higher claim; 8 is the default value

Mode Scheduler Profile Configuration

Related Documentation

- Configuring Implicit Constituents for Simple or Compound Shared Shaping
- Configuring Explicit Constituents for Simple or Compound Shared Shaping

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shared-shaping-rate

Syntax

shared-shaping-rate *sharedShapingRate* [*operator operandValue*]* [bps | kbps] [burst *burstSize* [milliseconds | bytes]] { simple | compound | auto } [explicit-constituents]

shared-shaping-rate *operandValue* [*operator operandValue*]* [bps | kbps] [burst *burstSize* [milliseconds | bytes]] { simple | compound | auto } [explicit-constituents]

no shared-shaping-rate

Release Information

Command introduced before JunosE Release 7.1.0.
operator and *operandValue* variables added in JunosE Release 7.1.0.
milliseconds and **bytes** keywords added in JunosE Release 7.1.0.
bps and **kbps** keywords added in JunosE Release 8.0.0.

Description

Sets the shared-shaping rate and burst size for the logical interface. This command must appear in the scheduler profile for either the best-effort queue or the best-effort scheduler node. The **no** version deletes the shared-shaping rate.

Options

- *sharedShapingRate*—Specifies a QoS parameter definition name or a constant shared shaping rate in the range of 1–1,000,000,000 bps/Kbps when used separately. You can set the constant shared shaping rate to vary from 1 bps to 1000 Gbps (which is denoted by entering 1,000,000,000 Kbps in the CLI for this command). It specifies a QoS parameter definition name or any integer value to be used in the mathematical expression when used with the *operator* and *operandValue* variables.
- *operator*—Mathematical function
- *operandValue*—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
- bps—Specifies shared-shaping rate in bits per second
- kbps—Specifies shared-shaping rate in kilobits per second

NOTE: The lower and higher limits for the shaping rate range apply to both the **bps** and **kbps** keywords available with this command. For example, if you want to set the shaping rate to 1 mbps, you can either enter 1000 as the value for the *shapingRate* argument and suffix it with the **kbps** keyword, or enter 1000000 as the value for the *shapingRate* argument and suffix it with the **bps** keyword. Both the methods of configurations result in the same shaping rate value to be set.

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- *burstSize*—Number, in the range 0–522240 (0–510 KB); 0 enables the router to select an applicable default value
- milliseconds—Specifies burst size in milliseconds
- bytes—Specifies burst size in bytes
- simple—Specifies the simple form of shared shaping, which does not manage voice and video traffic, but shapes data queue rates to the value of the shared rate minus the combined voice and video traffic rate
- auto—Specifies that the router automatically selects the type of shared shaping depending on the module; compound is selected only for line modules that support it, and simple is selected for all other line modules; this is the default mode
- compound—Specifies the compound form of shared shaping, which actively shapes voice and video traffic so that the shared rate cannot be exceeded, and shapes data queue rates to the value of the shared rate minus the combined voice and video traffic rate; requires special hardware
- explicit-constituents—Overrides automatic selection of compound shared-shaping constituents and enables you to explicitly specify constituents and bandwidth allocation; generates an error message and has no effect when applied to modules that do not support compound shared shaping

Mode Scheduler Profile Configuration

Related Documentation

- Configuring Simple Shared Shaping
- Configuring Implicit Constituents for Simple or Compound Shared Shaping
- Configuring Explicit Constituents for Simple or Compound Shared Shaping
- Configuring a Basic Parameter Definition for QoS Administrators

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show aaa accounting

Syntax show aaa accounting [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays AAA accounting configuration information, including the destinations where broadcast and duplicate accounting records are sent.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa accounting default

Syntax show aaa accounting { *subscriberType* } default [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the AAA accounting method used for the particular type of subscriber.

Options

- *subscriberType*—Specifies the type of subscriber:
  - atm1483—ATM 1483 subscribers
  - ip—IP subscriber management interfaces
  - ipsec—IPsec subscribers
  - ppp—PPP subscribers
  - radius-relay—RADIUS relay subscriber
  - tunnel—Tunnel subscribers
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa accounting interval

Syntax show aaa accounting interval [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the user and service accounting interval.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa accounting vr-group

Syntax show aaa accounting vr-group [*vrGroupName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the name of a particular virtual router group or the names of all virtual router groups configured on the router. Virtual router groups contain a list of virtual routers to which AAA broadcast accounting information can be sent.

Options
- *vrGroupName*—Name of a specific virtual router group; a string of up to 32 characters; if omitted, names of all virtual router groups are displayed
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa authentication default

Syntax show aaa authentication { *subscriberType* } default [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the AAA authentication method list used for the particular type of subscriber.

Options

- *subscriberType*—Specifies the type of subscriber:
  - atm1483—ATM 1483 subscribers
  - ip—IP subscriber management interfaces
  - ipsec—IPsec subscribers
  - ppp—PPP subscribers
  - radius-relay—RADIUS relay subscriber
  - tunnel—Tunnel subscribers
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa-corrupted-slots

Syntax show aaa-corrupted-slots

Release Information Command introduced in JunosE Release 14.2.0.

Description Displays the list of slot numbers in which statistics FPGA corruption is detected while reporting policy accounting to a RADIUS server through AAA.

Mode Privileged Exec, User Exec

Related Documentation

- Detection of Corruption in the Statistics FPGA for AAA-Based Policy Accounting
- Displaying the Slot Numbers with Corrupted Statistics FPGA for AAA-Based Policy Accounting

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show aaa delimiters

Syntax show aaa delimiters [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the domain name and realm name delimiters, parse order, and parse direction configured on the router.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa domain-map

Syntax show aaa domain-map [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the mapping between user domains and virtual routers. The display includes a tunnel group if one is assigned to the domain map.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa dhcpv6-delegated-prefix

Syntax show aaa dhcpv6-delegated-prefix [*filter*]

Release Information Command introduced in JunosE Release 10.1.0.

Description Displays the RADIUS attribute used for DHCPv6 Prefix Delegation.

Options
- *filter*—See "Filtering show Commands" on page 4.

Mode Privileged Exec

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show aaa duplicate-address-check

Syntax show aaa duplicate-address-check [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures AAA to query the routing table for duplicate address assignment before granting access.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa duplicate-prefix-check

Syntax show aaa duplicate-prefix-check [*filter*]

Release Information Command introduced in JunosE Release 11.2.0.

Description Displays whether duplicate IPv6 prefix checking is enabled or disabled.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa duplicate-prefix-check-extension

Syntax show aaa duplicate-prefix-check-extension [*filter*]

Release Information Command introduced in JunosE Release 12.2.0.

Description Displays whether enhanced duplicate IPv6 prefix checking is enabled or disabled.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa intf-desc-format

Syntax show aaa intf-desc-format

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays whether the router includes or excludes the subinterface number and adapter in the interface description that the router passes to RADIUS for inclusion in the NAS-Port-Id attribute

Mode Privileged Exec

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show aaa ipv4-addr-saving

Syntax show aaa ipv4-addr-saving [*filter*]

Release Information Command introduced in JunosE Release 13.1.0.

Description Displays the 32-byte string sent in the VSA.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- aaa ipv4-addr-saving

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show aaa ipv6-nd-ra-prefix

Syntax show aaa ipv6-nd-ra-prefix [*filter*]

Release Information Command introduced in JunosE Release 10.1.0.

Description Displays the RADIUS attribute used for IPv6 Neighbor Discovery router advertisements.

Options
- *filter*—See "Filtering show Commands" on page 4.

Mode Privileged Exec

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show aaa model

Syntax show aaa model [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays AAA model.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa name-servers

Syntax show aaa name-servers [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the IP addresses of the primary and secondary DNS and WINS name servers.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa per-profile-attr-list

Syntax show aaa per-profile-attr-list [brief | *profileName*]

Release Information Command introduced in JunosE Release 12.1.0.

Description Displays all the attributes configured in the AAA per-profile lists.

Options
- brief—Displays the AAA per-profile list
- *profileName*—Name of the AAA per-profile list; string of up to 32 characters

Mode Privileged Exec

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show aaa profile

Syntax show aaa profile [brief | name *profileName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays AAA profile names and the actions associated with each specified AAA profile name.

Options
- brief—Displays the status and number of configured VCs for all ATM interfaces configured in the router
- *profileName*—Name of the profile you want to display
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa qos downstream-rate

Syntax show aaa qos downstream-rate

Release Information Command introduced in JunosE Release 8.1.0.

Description Displays whether the QoS downstream rate application is enabled to use downstream rates obtained from the Actual-Data-Rate-Downstream [26-30] DSL Forum VSA.

Mode Privileged Exec

Related Documentation
- Monitoring the AAA Downstream Rate for QoS

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show aaa radius-override-ncp-negotiation

Syntax show aaa radius-override-ncp-negotiation [*filter*]

Release Information Command introduced in JunosE Release 13.3.0.

Description Displays the status of the AAA override feature to initiate IPCP and IPv6CP negotiations for IPv4 and IPv6 clients based on the RADIUS attributes returned by the RADIUS server.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring the Status of the Override Feature to Initiate IPCP and IPv6CP Negotiations Based on RADIUS-Returned Attributes

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show aaa route-download

Syntax show aaa route-download [ipv6] [statistics [delta]] [*filter*]

Release Information Command introduced in JunosE Release 8.1.0.
ipv6 keyword added in JunosE Release 13.0.0.

Description Displays AAA route download statistics.

Options
- ipv6—Displays IPv6 route-download statistics
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa route-download ipv6 routes

Syntax show aaa route-download ipv6 routes [*vrfName*] [detail] [*filter*]

Release Information Command introduced in JunosE Release 13.0.0.

Description Displays information about AAA-downloaded IPv6 routes.

Options
- *vrfName*—Name of the VRF
- detail—Displays detailed information about downloaded routes
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa route-download ipv6 routes global

Syntax show aaa route-download ipv6 routes global [start *startString*] [detail] [*filter*]

Release Information Command introduced in JunosE Release 13.0.0.

Description Displays information about AAA-downloaded IPv6 routes for all virtual routers and VRFs.

Options

- *startString*—String that specifies the first router context to display in the output; a maximum of 32 alphanumeric characters
- detail—Displays detailed information about the downloaded routes
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa route-download routes

Syntax show aaa route-download routes [*vrfName*] [detail] [*filter*]

Release Information Command introduced in JunosE Release 8.1.0.

Description Displays information about AAA downloaded routes.

Options
- *vrfName*—Name of a virtual routing and forwarding instance to display
- detail—Displays detailed information about downloaded routes
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa route-download routes global

Syntax show aaa route-download routes global [start *startString*] [detail] [*filter*]

Release Information Command introduced in JunosE Release 8.1.0.

Description Displays information about AAA downloaded routes for all virtual routers and VRFs.

Options
- *startString*—String that specifies the first router context to display in the output; a maximum of 32 alphanumeric characters
- detail—Displays detailed information about the downloaded routes
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa service accounting interval

Syntax show aaa service accounting interval [*filter*]

Release Information Command introduced in JunosE Release 9.0.0.

Description Displays the default accounting interval used by the Service Manager application for RADIUS-initiated services associated with users attached to this virtual router.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa statistics

Syntax show aaa statistics [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the authentication and authorization statistics.

Options
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa strip-domain

Syntax show aaa strip-domain

Release Information Command introduced in JunosE Release 12.0.0.

Description Displays information about the aaa domain-name stripping functionality per virtual router.

Mode Privileged Exec

Related Documentation
- aaa strip-domain

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show aaa subscriber per-port-limit

Syntax show aaa subscriber per-port-limit [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the number of active subscribers on each interface.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa subscriber per-vr-limit

Syntax show aaa subscriber per-vr-limit [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the number of active subscribers on each virtual router.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa timeout

Syntax show aaa timeout [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the idle and session timeouts.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa tunnel-group

Syntax show aaa tunnel-group [*tunnelGroupName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays currently configured tunnel groups.

Options
- *tunnelGroupName*—Name of the tunnel group
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa tunnel-parameters

Syntax show aaa tunnel-parameters [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays default tunnel parameters that are configured for tunnel definitions.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show aaa user accounting interval

Syntax show aaa user accounting interval [*filter*]

Release Information Command introduced in JunosE Release 9.0.0.

Description Displays the default accounting interval for users attached to this virtual router.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show access-list

Syntax show [ip] access-list [*accessListName*] [detail] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays access list information about the access list specified.

Options
- *accessListName*—Name of the access list
- detail—Displays detailed information about the access list
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show adjustment-factor

Syntax show adjustment-factor [adsl1 | adsl2 | adsl2+ | vdsl | vdsl2 | sds] [*filter*]

Release Information Command introduced in JunosE Release 9.1.0.
filter variable added in JunosE Release 13.2.0.

Description Displays the configured QoS adjustment factor that is applied to the ANCP-reported downstream and upstream data rate for all DSL line types or for the specified DSL line types.

Options
- *dslType*—Type of DSL line for which the QoS adjustment rate is displayed: **adsl1**, **adsl2**, **adsl2+**, **vdsl**, **vdsl2**, or **sds**
- *filter*—See Filtering show Commands on page 4

Mode L2C Configuration

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show aps

Syntax show aps [all [group [*groupName*]]]

Release Information Command introduced before JunosE Release 7.1.0.
all keyword added in JunosE Release 7.2.0.

Description Displays information about APS/MSP interfaces or groups from APS-capable controllers in the system.

Options
- all—Displays information from all APS/MSP groups
- *groupName*—Name of the APS/MSP group

Mode Privileged Exec

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show arp

Syntax show [ip] arp [*vrfName*] [*ipAddress*] [*interfaceType interfaceSpecifier*] [all] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the Address Resolution Protocol cache.

Options

- *vrfName*—Name of the VRF
- *ipAddress*—IP address of the ARP entry
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- all—Displays all ARP entries
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show atm aal5 interface

Syntax show atm aal5 interface atm *interfaceSpecifier* [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays configuration information about an ATM AAL5 interface.

Options
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show atm atm1483

Syntax show atm atm1483

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays whether or not the router is set up to export ATM 1483 subinterface descriptions to line modules.

Mode Privileged Exec, User Exec

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show atm bulk-config

Syntax show atm bulk-config [atm *interfaceSpecifier*] [name *bulkConfigName*] [override] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information, including base profile assignments and overriding profile assignments, for the bulk-configured VC ranges on an ATM AAL5 interface. You can display information for all VC ranges on the router, for all VC ranges on a particular ATM AAL5 interface, or for the VC range associated with a particular bulk configuration name.

Options

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *bulkConfigName*—Name associated with a VC range on the ATM AAL5 interface, as specified in the atm bulk-config command
- override—Displays information only about each overriding profile assignment configured for a specific ATM PVC within a bulk-configured VC subrange; when you use the **override** keyword, information about base profile assignments is not displayed
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show atm interface

Syntax show atm interface {atm *interfaceSpecifier* | brief } [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays configuration information about an ATM interface or a brief description of all ATM (major) interfaces configured in the router.

Options

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- brief—Displays the status and number of configured VCs for all ATM interfaces configured in the router
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation

- Monitoring the QoS Configuration of ATM Interfaces
- Monitoring the Policy Configuration of ATM Subinterfaces

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show atm map

Syntax show atm map [*mapName*] [brief] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the list of all configured ATM static maps to remote hosts on an ATM network.

Options
- *mapName*—Name of the map list
- brief—Displays information in a condensed format
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show atm mcpt-timers

Syntax show atm mcpt-timers [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the current systemwide values configured on the router for the three ATM Martini cell packing timers.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Configuring an MPLS Pseudowire with VCC Cell Relay Encapsulation
- Monitoring ATM Martini Cell Packing Timers for Layer 2 Services over MPLS

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show atm oam

Syntax show atm oam *interfaceSpecifier* [*vpi*] [segment | end-to-end] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays F4 OAM statistics.

Options

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *vpi*—Virtual path identifier
- segment—Displays information about segment F4 OAM circuits
- end-to-end—Displays information about end-to-end F4 OAM circuits
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show atm ping

Syntax show atm ping [atm *interfaceSpecifier* [*vpi vci*]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays a summary of the results (number of ping cells sent, number of ping cells received, success rate) of the ping operation. These results are overwritten when a new ATM ping is invoked for the circuit. If you do not specify any of the options, the command shows ping entries for the entire router.

Options

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *vpi*—Virtual path identifier
- *vci*—Virtual circuit identifier
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show atm subinterface

Syntax show atm subinterface
[summary | atm *interfaceSpecifier* | summary atm *interfaceSpecifier* |
status *operatingStatus*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the current state of all ATM subinterfaces that you specify.

Options

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- summary—Specifies that summary information is displayed
- status—Displays information only for the ATM subinterfaces with the specified operating status
- *operatingStatus*—One of the following operating states:
  - dormant
  - dormantLockout
  - down
  - lowerLayerDown
  - notPresent
  - up
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation

- Configuring an MPLS Pseudowire with VCC Cell Relay Encapsulation
- Monitoring ATM Martini Cell Packing Timers for Layer 2 Services over MPLS

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show atm vc

Syntax show atm vc [atm *interfaceSpecifier*] { [vpi *vpi*] [category *categoryType*] [status *statusType*] | reserved } [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays a summary of all configured ATM virtual circuits (VCs) and reserved VC ranges.

Options

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *vpi*—Virtual path identifier
- *categoryType*—One of the following service categories for which VCs are displayed:
  - cbr
  - nrt-vbr
  - rt-vbr
  - ubr
  - ubr-pc
- *statusType*—Status of VC to be displayed, up or down
- reserved—Displays only a summary of all reserved VC ranges on the router, including those reserved for use by dynamic ATM 1483 subinterfaces and by MPLS
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show atm vc atm

Syntax show atm vc { *description* | atm *interfaceSpecifier* { *vcd* | vpi-vci *vpi vci* } } [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays OAM statistics on a VC. You can specify the circuit to display by entering the VCD, or by using the **vpi-vci** keyword and specifying the VPI and VCI. You can also specify the circuit to display by entering the description configured for the ATM 1483 subinterface on which the VC resides.

Options

- *description*—Text string or alias assigned to the ATM 1483 subinterface (with the atm atm1483 description command) on which the VC resides; up to 255 characters
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *vcd*—VCD identifying the VC
- *vpi*—Virtual path identifier
- *vci*—Virtual circuit identifier
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show atm vc-class

Syntax show atm vc-class [*vcClassName* [include-defaults]] [*filter*]

Release Information Command introduced in JunosE Release 7.3.0.

Description Displays the names of all VC classes configured on the router, or, when issued with a VC class name, displays detailed information about the attributes configured in the specified VC class.

Options

- *vcClassName*—Name of the VC class configured with the **vc-class atm** command
- include-defaults—Includes commands that set default values for various parameters
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show atm vp

Syntax show atm vp atm *interfaceSpecifier vpi* [delta] [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.

Description Displays detailed statistics for a specific ATM virtual path (VP) configured on the router.

Options

- *interfaceSpecifier*—ATM interface specifier; see Interface Types and Specifiers on page 5
- *vpi*—Virtual path identifier
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show atm vp-description

Syntax show atm vp-description [*interfaceSpecifier* [*vpi*]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays descriptions configured for virtual paths (VPs) on an ATM interface. You can display all VP descriptions configured on the router, all VP descriptions configured for a particular interface, or the VP description configured for a particular VPI.

Options

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *vpi*—Virtual path identifier number, in the range 0–255
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show atm vp-tunnel

Syntax show atm vp-tunnel [*interfaceSpecifier*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays a summary of all configured ATM virtual path tunnels.

Options
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show bandwidth oversubscription

Syntax show bandwidth oversubscription [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the bandwidth oversubscription status.

Options
- *filter*—See Filtering show Commands on page 4

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show bfd session

Syntax show bfd session [address [*ipAddress* | *ipv6Address*]] [detail] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays Bidirectional Forwarding Detection (BFD) protocol session information.

Options

- *ipAddress*—IPv4 address of the session
- *ipv6Address*—IPv6 address of the session
- detail—Displays detailed information about the BFD session
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show bgp ipv6

Syntax To display information about networks in address families other than the route-target address family:

show bgp ipv6 [unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName*] *ipv6Prefix* [longer-prefixes] [fields { *fieldOptions* }] [*filter*]

To display information about networks in only the route-target address family:

show bgp ipv6 route-target signaling { *rtfPrefix* [longer-prefixes] | *rtfAddress* } [fields { *fieldOptions* }] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
route-target signaling keywords and *rtMemNlri* variable added in JunosE Release 8.2.0.
rtMemNlri variable replaced by two variables, *rtfAddress* and *rtfPrefix*, in JunosE Release 9.1.0.

Description Displays filtered information about a specified network, or all networks, in the IPv6 BGP routing table. Only those fields that you specify are displayed, except that the prefix field is always displayed. Default fields can be set with the **default-fields route** command.

Options

- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- *ipv6Prefix*—Prefix that defines the IPv6 network that you want to filter
- longer-prefixes—Displays all routes with a prefix that is equal to or more specific than the specified prefix
- route-target signaling—Specifies the route-target address family
- *rtfPrefix*—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

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  - *prefixLength*—Number that specifies the length of the route prefix, in the range 32–96

- *rtfAddress*—*rtfPrefix* with a prefix length of 96; representing the route-target membership NLRI (RT-MEM-NLRI), in the format *asNumber*:*extendedCommunity* (for example, 320:320:524 or 320:50.2.3.4:524)
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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]*

  For peers, all described options are available. For peer groups, all options are available except the following:

  best | imported | intro | next-hop-cost | peer | peer-type | stale | 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; typically, but not always, this is the label advertised to MP-BGP peers
  - 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
  - origin—Origin of the route
  - originator-id—Router ID of the router in the local AS that originated the route

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- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- *filter*—See Filtering show Commands on page 4

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show bgp ipv6 advertised-routes

Syntax To display routes advertised to a neighbor or peer group in all address families or a particular address family other than the route-target address family:

show bgp ipv6 [unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName*]
{ neighbors { *ipAddress* | *ipv6Address* } | peer-group *peerGroupName* }
advertised-routes [*ipv6Prefix* [longer-prefixes]]
[fields { *fieldOptions* }] [delta] [*filter*]

To display routes advertised to a neighbor or peer group in only the route-target address family:

show bgp ipv6 route-target signaling
{ neighbors { *ipAddress* | *ipv6Address* } | peer-group *peerGroupName* }
advertised-routes [fields { *fieldOptions* }] [delta] [*filter*]

To display routes advertised to the specified peer group for all VPN address families or for a particular VPN address family; optionally after the application of route-target filters advertised by the specified member of the peer group:

show bgp ipv6 [vpnv6 all | vpnv6 vrf *vrfName* | l2vpn [all] |
route-target signaling]peer-group *peerGroupName* advertised-routes
[route-target-filter neighbor { *ipRtfNbrAddress* | *ipv6RtfNbrAddress* }]
[fields { *fieldOptions* }] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.
route-target signaling and **route-target-filter neighbor** keywords and *ipRtfNbrAddress* and *ipv6RtfNbrAddress* variables added in JunosE Release 8.2.0.

Description Displays IPv6 BGP routes advertised to the specified BGP peer or peer group.

Options

- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- *ipAddress*—IP address of the IPv6 BGP neighbor
- *ipv6Address*—IPv6 address of the IPv6 BGP neighbor
- *peerGroupName*—Name of the IPv6 BGP peer group
- *ipv6Prefix*—Prefix that defines the IPv6 network that you want to filter
- longer-prefixes—Displays all routes with a prefix that is equal to or more specific than the specified prefix

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- route-target signaling—Specifies the route-target address family
- l2vpn—Displays information for only the L2VPN address family
- all—Optional keyword; has no effect
- route-target-filter neighbor—Displays routes actually advertised to the specified peer group member (neighbor); which routes are advertised is determined by the application of the route-target filter received from that neighbor to routes in the peer group's Adj-RIBs-Out table
- *ipRtfNbrAddress*—IP address of a peer group member that has advertised route-target membership filtering information
- *ipv6RtfNbrAddress*—IPv6 address of a peer group member that has advertised route-target membership filtering information
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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; typically, but not always, this is the label advertised to MP-BGP peers
  - 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

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- next-hop-cost—Whether the indirect next hop of the route is unreachable, if not, displays IGP cost to the indirect next hop
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

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show bgp ipv6 aggregate-address

Syntax show bgp ipv6 [unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName*] aggregate-address [*ipv6Prefix*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about IPv6 BGP aggregate addresses.

Options

- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- *ipv6Prefix*—Aggregate IPV6 prefix
- *filter*—See Filtering show Commands on page 4

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show bgp ipv6 community

Syntax show bgp ipv6
[unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName* | route-target signaling] community
{ *communityNumber* | local-as | no-advertise | no-export }
[*communityNumber* | local-as | no-advertise | no-export]*
[exact-match] [fields { *fieldOptions* }] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
route-target signaling keywords added in JunosE Release 8.2.0.

Description Displays routes that belong to the specified BGP community.

Options

- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Specifies the route-target address family
- *communityNumber*—Filters routes according to this community number, specified either as a number in the range 1–4294967295 or in *AA:NN* format (autonomous system number:community number); displays only routes that are members of the specified community
- local-as—Displays only routes belonging to the local AS community
- no-advertise—Displays only routes belonging to the no-advertise community
- no-export—Displays only routes belonging to the no-export community
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line
- exact-match—Displays only routes that have exactly the specified communities
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- 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; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- *filter*—See Filtering show Commands on page 4

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show bgp ipv6 community-list

Syntax show bgp ipv6
[unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName* | route-target signaling]
community-list *communityListName* [exact-match] [fields { *fieldOptions* }]
[*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
route-target signaling keywords added in JunosE Release 8.2.0.

Description Displays routes that belong to the BGP community specified by the community list.

Options

- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Specifies the route-target address family
- *communityListName*—Filters routes according to community list; displays only routes that are members of a community on the specified list
- exact-match—Displays only routes that have exactly the specified communities
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- 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; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- *filter*—See Filtering show Commands on page 4

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show bgp ipv6 dampened-paths

Syntax show bgp ipv6
[unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName* | route-target signaling]
dampened-paths [fields { *fieldOptions* }] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
route-target signaling keywords added in JunosE Release 8.2.0.

Description Displays information about dampened IPv6 BGP routes.

Options

- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Specifies the route-target address family
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- in-label—MPLS label for the route; the label received with incoming MPLS frames; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- *filter*—See Filtering show Commands on page 4

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show bgp ipv6 filter-list

Syntax show bgp ipv6
[unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName* | route-target signaling]
filter-list *asPathAccessListName* [fields { *fieldOptions* }] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
route-target signaling keywords added in JunosE Release 8.2.0.

Description Displays all routes whose AS path matches the specified AS path access list.

Options

- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Specifies the route-target address family
- *asPathAccessListName*—Name of AS path access list to filter routes; displays only routes that have AS paths matching the specified list
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- 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; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- *filter*—See Filtering show Commands on page 4

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show bgp ipv6 flap-statistics

Syntax To display IPv6 BGP flap statistics for any case other than for the route-target address family:

show bgp ipv6 [unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName*] flap-statistics [*ipv6Prefix*] [*filter*]

To display IPv6 BGP flap statistics for the route-target address family:

show bgp ipv6 route-target signaling flap-statistics [*rtfPrefix* | *rtfAddress*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
route-target signaling keywords and *rtMemNlri* variable added in JunosE Release 8.2.0.
rtMemNlri variable replaced by two variables, *rtfAddress* and *rtfPrefix*, in JunosE Release 9.1.0.

Description Displays IPv6 BGP flap statistics.

Options

- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- *ipv6Prefix*—IPv6 prefix for which you want information displayed. If no prefix is specified, the fields are displayed for all networks.
- route-target signaling—Specifies the route-target address family
- *rtfPrefix*—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

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- *rtfAddress—rtfPrefix* with a prefix length of 96; representing the route-target membership NLRI (RT-MEM-NLRI), in the format *asNumber:extendedCommunity* (for example, 320:320:524 or 320:50.2.3.4:524)
- *filter*—See Filtering show Commands on page 4

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show bgp ipv6 inconsistent-as

Syntax show bgp ipv6
[unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName* | route-target signaling]
inconsistent-as [fields { *fieldOptions* }] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
route-target signaling keywords added in JunosE Release 8.2.0.

Description Displays information only about routes with inconsistent AS paths.

Options

- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Specifies the route-target address family
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- in-label—MPLS label for the route; the label received with incoming MPLS frames; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- *filter*—See Filtering show Commands on page 4

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show bgp ipv6 neighbors

Syntax show bgp ipv6
[unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName* | route-target signaling]
neighbors [*ipAddress* | *ipv6Address*] [delta] [*filter*]

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.

Description Displays information about BGP neighbors.

Options
- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Specifies the route-target address family
- *ipAddress*—IP address of a neighbor whose routes the router has learned
- *ipv6Address*—IPv6 address of a neighbor whose routes the router has learned
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

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show bgp ipv6 neighbors dampened-routes

Syntax show bgp ipv6
[unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName* | route-target signaling]
neighbors { *ipAddress* | *ipv6Address* } dampened-routes [fields { *fieldOptions* }]
[delta] [*filter*]

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.

Description Displays information about IPv6 BGP routes with a dampening history for the specified BGP neighbor.

Options

- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Specifies the route-target address family
- *ipAddress*—IP address of a neighbor whose routes the router has learned
- *ipv6Address*—IPv6 address of a neighbor whose routes the router has learned
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- 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; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

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show bgp ipv6 neighbors paths

Syntax show bgp ipv6
[unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName* | route-target signaling]
neighbors { *ipAddress* | *ipv6Address* } paths [*pathExpression*] [*filter*]

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.

Description Displays IPv6 BGP path information for the specified BGP neighbor.

Options
- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Specifies the route-target address family
- *ipAddress*—IP address of a neighbor whose routes the router has learned
- *ipv6Address*—IPv6 address of a neighbor whose routes the router has learned
- *pathExpression*—See the **show ip bgp regexp** command for descriptions
- *filter*—See Filtering show Commands on page 4

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show bgp ipv6 neighbors received-routes

Syntax show bgp ipv6
[unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName* | route-target signaling]
neighbors { *ipAddress* | *ipv6Address* } received-routes [fields { *fieldOptions* }]
[delta] [*filter*]

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.

Description Displays IPv6 BGP routes originating from the specified BGP neighbor before inbound policy is applied.

Options

- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Specifies the route-target address family
- *ipAddress*—IP address of a neighbor whose routes the router has learned
- *ipv6Address*—IPv6 address of a neighbor whose routes the router has learned
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- 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; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

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show bgp ipv6 neighbors routes

Syntax show bgp ipv6
[unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName* | route-target signaling]
neighbors { *ipAddress* | *ipv6Address* } routes [fields { *fieldOptions* }] [delta]
[*filter*]

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.

Description Displays IPv6 BGP routes originating from the specified BGP neighbor after inbound policy is applied.

Options

- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Specifies the route-target address family
- *ipAddress*—IP address of a neighbor whose routes the router has learned
- *ipv6Address*—IPv6 address of a neighbor whose routes the router has learned
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- 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; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

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show bgp ipv6 network

Syntax To display information about a prefix configured for all address families or for a specific address family other than the route-target address family:

show bgp ipv6 [unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName*]
network [*ipv6Prefix*] [*filter*]

To display information about a prefix configured for the route-target address family:

show bgp ipv6 route-target signaling network [*rtfPrefix*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
route-target signaling keywords and *rtMemNlri* variable added in JunosE Release 9.0.0.
rtMemNlri variable replaced by *rtfPrefix* variable in JunosE Release 9.1.0.

Description Displays information about a potentially originated prefix that was configured with the **network** command.

Options

- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- *ipv6Prefix*—Prefix that defines the IPv6 network that you want to filter
- route-target signaling—Displays information for only the route-target address family
- *rtfPrefix*—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
- *filter*—See Filtering show Commands on page 4

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show bgp ipv6 next-hops

Syntax show bgp ipv6
[unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName* | route-target signaling]
next-hops [*ipv6Address*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
route-target signaling keywords added in JunosE Release 8.2.0.

Description Displays information about IPv6 BGP next hops.

Options
- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Specifies the route-target address family
- *ipv6Address*—Information only for this indirect next hop
- *filter*—See Filtering show Commands on page 4

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show bgp ipv6 paths

Syntax show bgp ipv6
[unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName* | route-target signaling]
paths [*pathExpression*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
route-target signaling keywords added in JunosE Release 8.2.0.

Description Displays information about IPv6 BGP AS paths.

Options
- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Specifies the route-target address family
- *pathExpression*—See the **show ip bgp regexp** command for descriptions
- *filter*—See Filtering show Commands on page 4

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show bgp ipv6 peer-group

Syntax show bgp ipv6
[unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName* | route-target signaling]
peer-group [*peerGroupName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
route-target signaling keywords added in JunosE Release 8.2.0.

Description Displays information about BGP peer groups.

Options
- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Specifies the route-target address family
- *peerGroupName*—Name of the BGP peer group
- *filter*—See Filtering show Commands on page 4

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show bgp ipv6 quote-regexp

Syntax show bgp ipv6
[unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName* | route-target signaling]
quote-regexp *pathExpression* [fields { *fieldOptions* }] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
route-target signaling keywords added in JunosE Release 8.2.0.

Description Displays information about IPv6 BGP routes whose AS path matches the specified regular expression. Regular expressions match numbers for which the specified path is a substring—for example, if you specify *20*, *200* matches because *20* is a substring of *200*. You can disallow substring matching by using the underscore (_) metacharacter to constrain matching to the specified pattern; for example,*_20_*. You can use output filtering on the display.

Options

- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Specifies the route-target address family
- quote-regexp—Indicates that only a single element is matched
- *pathExpression*—See the show ip bgp regexp command for descriptions
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- 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; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- *filter*—See Filtering show Commands on page 4

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show bgp ipv6 regexp

Syntax show bgp ipv6
[unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName* | route-target signaling]
regexp *pathExpression* [fields { *fieldOptions* }] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
route-target signaling keywords added in JunosE Release 8.2.0.

Description Displays information about IPv6 BGP routes whose AS path matches one or more specified regular expressions. Regular expressions match numbers for which the specified path is a substring—for example, if you specify *20*, *200* matches because *20* is a substring of *200*. You can disallow substring matching by using the underscore (_) metacharacter to constrain matching to the specified pattern; for example,*_20_*. You can use output filtering on the display.

Options

- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Specifies the route-target address family
- regexp—Indicates that multiple elements can be matched
- *pathExpression*—See the show ip bgp regexp command for descriptions
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- 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; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show bgp ipv6 summary

Syntax show bgp ipv6
[unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName* | route-target signaling]
summary [fields { *fieldOptions* }] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
route-target signaling keywords added in JunosE Release 8.2.0.

Description Displays filtered information about the status of all BGP connections. Only those fields that you specify are displayed, except that the prefix field is always displayed. Default fields can be set with the **default-fields peer** command.

Options

- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Displays information for only the route-target address family
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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]*
  - 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

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- 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

- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show boot

Syntax show boot [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the configuration and router settings that are used at startup.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show bridge1483 interface

Syntax show bridge1483 interface [atm *interfaceSpecifier*] [*filter*]

To display summary information:

show bridge1483 interface summary

Release Information Command introduced before JunosE Release 7.1.0.
atm keyword and *interfaceSpecifier* variable added in JunosE Release 7.2.0.

Description Displays configuration and status information for all bridged Ethernet interfaces currently configured on the router. Alternatively, you can use the **summary** keyword to display only brief summary information for all bridged Ethernet interfaces.

Options

- atm—Specifies ATM interfaces
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4
- summary—Displays only the total number of bridged Ethernet interfaces currently configured on the router

Mode Privileged Exec, User Exec

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show bridge

Syntax show bridge { *bridgeGroupName* | *vplsName* } [all [delta]] [*filter*]

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

Description Displays configuration and statistics information for the specified bridge group or VPLS instance.

Options
- *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
- all—Displays address table and statistics information for each network interface assigned to the bridge group or VPLS instance
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring VPLS Configuration and Statistics for a Specific VPLS Instance

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show bridge groups

Syntax show bridge groups [details] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays configuration information for all bridge groups and VPLS instances currently configured on the router.

Options
- details—Displays configuration settings for each bridge group or VPLS instance on the router; if you omit this keyword, the router displays only the names of each bridge group or VPLS instance
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring VPLS Configuration and Statistics for All VPLS Instances

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show bridge interface

Syntax To display information about a specified network interface that belongs to a bridge group or to a VPLS instance:

show bridge interface *interfaceType interfaceSpecifier* [delta] [*filter*]

To display information about all interfaces that belong to a bridge group or to a VPLS instance, including the VPLS virtual core interface for a VPLS instance:

show bridge { *bridgeGroupName* | *vplsName* } interface [brief | delta] [*filter*]

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

Description Displays configuration, statistics, and status information for a specified network interface that belongs to a bridge group or to a VPLS instance, or for all interfaces that belong to a bridge group or to a VPLS instance.

When you use the **show bridge interface** command to display information for all interfaces in a VPLS instance, the router displays information about the network interfaces that belong to the VPLS instance and about the VPLS virtual core interface, which represents all the MPLS tunnels from the router to the remote VPLS edge (VE) devices.

Options

- *interfaceType*—One of the following interface types listed in Interface Types and Specifiers on page 5
  - atm
  - fastEthernet
  - gigabitEthernet
  - tenGigabitEthernet
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4
- *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
- brief—Displays the type, specifier, associated port number, and operational status for each interface
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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Related Documentation

- Monitoring Configuration, Statistics, and Status for VPLS Network Interfaces

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show bridge interface vpls

Syntax show bridge interface vpls *vplsName* [delta] [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.

Description Displays configuration, statistics, and status information for a VPLS instance on the VPLS virtual core interface, which represents all the MPLS tunnels from the router to the remote VPLS edge (VE) devices.

Options
- *vplsName*—Name of a VPLS instance created with the bridge vpls transport-virtual-router command
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring Configuration, Statistics, and Status for VPLS Core Interfaces

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show bridge port

Syntax show bridge { *bridgeGroupName* | *vplsName* } port [*portNumber*] [brief | delta] [*filter*]

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

Description Displays configuration, statistics, and status information for ports (interfaces) associated with a bridge group or VPLS instance.

Options

- *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
- *portNumber*—Port number for which you want to display information; if you omit the port number, the router displays information for all ports that belong to the bridge group or to the VPLS instance
- brief—Displays the port number, interface type, interface specifier, and operational status for each port that belongs to the bridge group or to the VPLS instance
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation

- Monitoring Configuration, Statistics, and Status for VPLS Ports

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show bridge table

Syntax show bridge { *bridgeGroupName* | *vplsName* } table [static | dynamic] [*filter*]

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

Description Displays information about the entries in the MAC address table for the specified bridge group or VPLS instance. You can display information only for static entries, only for dynamic entries, or for both static and dynamic entries.

Options

- *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
- static—Displays information for only static (nonlearned) entries in the MAC address table
- dynamic—Displays information for only dynamic (learned) entries in the MAC address table
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation

- Monitoring MAC Address Entries for a Specific VPLS Instance

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show bulkstats

Syntax show bulkstats [brief] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays bulkstats statistical information.

Options
- brief—Displays a brief description for each collector type
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show bulkstats collector description

Syntax show bulkstats collector description [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the collector's file description.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show bulkstats collector interval

Syntax show bulkstats collector interval [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the time for which the router transfers data to the receivers.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show bulkstats collector max-size

Syntax show bulkstats collector max-size [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the maximum size of the bulkstats file.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show bulkstats collector transfer-mode

Syntax show bulkstats collector transfer-mode [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the way in which the router transfers data to the receivers.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show bulkstats interface-type

Syntax show bulkstats interface-type [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the collection of statistical data for the particular interface type (for example, ATM).

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show bulkstats receiver

Syntax show bulkstats receiver [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the configuration of the receiver's remote files.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show bulkstats schema

Syntax show bulkstats schema [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays data on the selected schema.

Options
- *filter*—if-stack or if-stats; see Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show bulkstats statistics

Syntax show bulkstats statistics [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about statistics counters.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show bulkstats traps

Syntax show bulkstats traps [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about bulkstats traps.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show bulkstats virtual-routers

Syntax show bulkstats virtual-routers

Release Information Command introduced in JunosE Release 7.1.0.

Description Displays information about bulkstats router groups.

Mode Privileged Exec, User Exec

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show cac

Syntax show cac [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays global call admission control configuration.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show cac interface

Syntax show cac interface [brief | *interfaceType interfaceSpecifier*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays all interfaces on which TE bandwidth accounting is configured, or information only for the specified interface.

Options

- brief—Displays summary information about the interface
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show calendar

Syntax show calendar [*filter*]

Release Information Command introduced in JunosE Release 12.2.0.

Description Displays the real-time clock hardware time and date. Also, displays the state of the real-time clock chip if it has encountered an error.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show classifier-list

Syntax show classifier-list [*classifierName* [*classifierNumber*]] [brief | detailed] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about classifier control lists.

Options
- *classifierName*—Name of classifier control list
- *classifierNumber*—Number associated with a classifier control list entry
- brief—Displays information in a condensed format
- detailed—Displays detailed information
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring Classifier Control Lists

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show clns

Syntax show clns [es-neighbors | is-neighbors] [*interfaceType interfaceSpecifier*] [detail] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the CLNS network.

Options

- es-neighbors—Displays IS-IS related information for IS-IS end-system adjacencies. Neighbor entries are sorted according to the area in which they are located.
- is-neighbors—Displays IS-IS related information for IS-IS intermediate-system adjacencies. Neighbor entries are sorted according to the area in which they are located.
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- detail—Displays area addresses and IP addresses; if not specified, a summary display is provided
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show clns interface

Syntax show clns interface [*interfaceType interfaceSpecifier*] [brief] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
brief keyword added in JunosE Release 8.0.0.

Description Lists the Connectionless Network Service information about each interface.

Options
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- brief—Displays summary information about the interface or all interfaces
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show clns neighbors

Syntax show clns neighbors [*interfaceType interfaceSpecifier*] [detail] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays both ES and IS neighbors.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- detail—When specified, the area addresses advertised by the neighbor in the hello messages are displayed; otherwise, a summary display is provided
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show clns protocol

Syntax show clns protocol [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Lists the protocol-specific information for each IS-IS routing process in the router.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show clns traffic

Syntax show clns traffic [*interfaceType interfaceSpecifier*] [detail] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays IS-IS protocol statistics globally for the router or for only a specified interface.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- detail—Displays detailed statistics; statistics for hello packets, CSNPs, and PSNPs are displayed only when an interface is also specified
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show clock

Syntax show clock [detail] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the router's clock source.

Options
- detail—Provides expanded information about the clock settings, rather than a summary
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show color-mark-profile

Syntax show color-mark-profile *colorMarkProfileName* [*filter*]

Release Information Command introduced in JunosE Release 7.2.0.

Description Displays color mark profile entries.

Options
- *colorMarkProfileName*—Name of the color mark profile
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring Color-Mark Profiles

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show columns

Syntax show columns

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays configuration information of bridged Ethernet over ATM, IP over ATM, PPP, or PPPoE static and dynamic interface columns. It is designed to categorize interface subscribers into PPP, PPPoE, bridged, or routed.

Mode Privileged Exec, User Exec

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show configuration

Syntax show configuration [interface *interfaceType interfaceSpecifier*] |
[category *categoryName* [*categoryName*]*] [virtual-router *routerName*]
[[exclude-category interface *interfaceType*]*] [include-defaults] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the current (running) configuration of the router, a specified virtual router, a specified interface, or a specified category of router settings. You can create a configuration script from this output by saving it as a file with the .scr extension. This command was formerly documented as **show config**; that abbreviation is still supported.

This command provides configuration information based on the privilege level of the session (user). The output does not display any configuration data for commands that have privilege levels higher than that of the session. For example, if the session is enabled at level 5, issuing this command displays only output for commands at level 5 and below.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *categoryName*—Name of the category or subcategory of router settings; first *categoryName* variable in the syntax represents the category; repeated *categoryName* variables represent subcategories of the category
- *routerName*—Name of the virtual router
- exclude-category—Excludes information associated with a particular type of interface
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line
- include-defaults—Includes commands that set default values for various parameters
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show control-plane policer

Syntax show control-plane policer protocol *protocolValue*

Release Information Command introduced in JunosE Release 8.0.0.

Description Displays control plane information for a specified protocol or for all protocols.

Options

- *protocolValue*—Name of the protocol. For details about the values that are displayed for this attribute in the CLI interface, see the *Protocol Mapping* section in Understanding DoS Protection. The following names of protocols apply to the *protocolValue* variable that is available with this command, in addition to the list of protocol names that are described in the *Protocol Mapping* section.
  - EthernetFcBasedPppTerminate—Ethernet forwarding controller-based PPP Fast Reconnect
  - EthernetOam—Ethernet OAM packet
  - IpFastBfd—IP fast BFD
  - IpLocalFastBfd—IP local fast BFD
  - IpRouteNull0Interface—IP route to null 0 interface

Mode Privileged Exec, User Exec

Related Documentation

- Monitoring Control Plane Policer Information

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show controllers e3

Syntax show controllers e3 [brief | { *interfaceSpecifier* [brief | all | summary] | serial [*interfaceSpecifier*] }] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about E3 controller interfaces.

Options

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- brief—Abbreviated display of E3 controller information
- all—Detailed display of all available E3 controller information
- summary—Displays link status summary
- serial—Displays information about serial interfaces
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show controllers sonet

Syntax show controllers sonet { [brief] | *interfaceSpecifier* [*:controllerSpecifier*] { [configuration] | *layerType* [*interval* | total [delta]] | *controllerType* [*interval*] | all [total [delta]] } } [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the statistics or the configuration for the different layers of channelized SONET and SDH interfaces.

Options

- brief—Displays a summary of information about all controllers
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *controllerSpecifier*—One of the following:
  - For a section or line, there is no *controllerSpecifier*
  - For a path, the number of the path
  - For a tributary, specified in the format *pathChannel* [*/pathPayload*] [*/tributaryGroup*] [*/tributaryNumber*]
  - For an E1 or a DS1 controller, specified in the format *pathChannel* [*/pathPayload*] [*/tributaryGroup*] [*/tributaryNumber*] [*/channelGroup*]
  - For a DS3 controller, specified in the format *pathChannel ds3-channel-number* [*ds1-channel-number*] [*subchannelNumber*]
    - *pathChannel*—Number of the path
    - *pathPayload*—Number of the payload within the path. In SONET mode, *pathPayload* is always 1. In SDH mode, *pathPayload* is the number of the TUG-3 group.
    - *tributaryGroup*—Number of the tributary group within the path. In SONET mode, *tributary group* is the number of the VT group. In SDH mode, tributary group is the number of the TUG-2 group.
    - *tributaryNumber*—Number of the tributary within the group. In SONET mode, *tributaryNumber* is the number of the VT. In SDH mode, *tributaryNumber* is the number of the TUG-1 group or tributary unit.
    - *channelGroup*—Number of the channel group
    - *ds3-channel-number*—Number of the ds3 channel
    - *ds1-channel-number*—Number of the ds1 channel in the range 1–28
    - *subchannelNumber*—Number of the subchannel in the range 1–24
- configuration—Displays the configuration of each controller at the specified level and above

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- *layerType*—Type of SONET/SDH layer
  - section—Section layer of an interface
  - line—Line layer of an interface
  - path—SONET or SDH path
- *interval*—Number of 15-minute intervals over which the router monitors information; a value in the range 1–96; default value is the current interval, number 1
- *controllerType*—Type of interface or channel
  - tributary—SONET or SDH virtual tributary
  - e1—E1 channel over SDH virtual tributary
  - ds1—T1 channel over SONET/SDH virtual tributary
  - ds3—T3 over channelized SONET interface
  - t1—T1 channel on T3 over channelized SONET interface
- total—Displays the MIB statistics for all intervals
- delta—Displays baselined statistics for all intervals
- all—Shows statistics for all time intervals, rather than statistics for selected time intervals
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show controllers sonet remote

Syntax show controllers sonet { *interfaceSpecifier* [:*controllerSpecifier*] remote [all] } [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the statistics on the remote device when MDL is configured on a T3 over channelized SONET interface or FDL is configured on either a T1 channel on a T3 over channelized SONET interface or a T1 over SONET/SDH interface.

Options

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *controllerSpecifier*—One of the following:
  - For a section or line, there is no *controllerSpecifier*
  - For a T3 over channelized SONET interface, specified in the format *pathChannel ds3-channel-number* [*ds1-channel-number*] [*subchannelNumber*]
  - For a T1 over SONET/SDH interface, specified in the format *pathChannel* [*/pathPayload*] [*/tributaryGroup*] [*/tributaryNumber*] [*/channelGroup*]
    - *pathChannel*—Number of the path
    - *pathPayload*—Number of the payload within the path. In SONET mode, *pathPayload* is always 1. In SDH mode, *pathPayload* is the number of the TUG-3 group.
    - *tributaryGroup*—Number of the tributary group within the path. In SONET mode, *tributary group* is the number of the VT group. In SDH mode, tributary group is the number of the TUG-2 group.
    - *tributaryNumber*—Number of the tributary within the group. In SONET mode, *tributaryNumber* is the number of the VT. In SDH mode, *tributaryNumber* is the number of the TUG-1 group or tributary unit.
    - *channelGroup*—Number of the channel group
    - *ds3-channel-number*—Number of the ds3 channel
    - *ds1-channel-number*—Number of the ds1 channel in the range 1–28
    - *subchannelNumber*—Number of the subchannel in the range 1–24
- all—Shows statistics for all time intervals, rather than statistics for selected time intervals
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show controllers t1

Syntax show controllers t1 [brief | { { fractional | serial } [*interfaceSpecifier*] | *interfaceSpecifier* [brief | all | summary] }] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the T1 controller interfaces.

Options

- fractional—Displays information about T1 fractional interfaces
- serial—Displays information about T1 serial interfaces
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- brief —Abbreviated display of T1 controller information
- all—Shows statistics for all time intervals, rather than statistics for selected time intervals
- summary—Displays link status summary
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show controllers t3

Syntax show controllers t3 [brief | { *interfaceSpecifier* [brief | all | summary] | { ft1 | serial } [*interfaceSpecifier*] }] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the T3 controller interfaces.

Options

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- brief—Abbreviated display of T3 controller information
- all—Shows statistics for all time intervals, rather than statistics for selected time intervals
- summary—Displays link status summary
- ft1—Displays information about fractional T1 subchannels
- serial—Displays information about serial interfaces
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show controllers t3 remote

Syntax show controllers t3 *interfaceSpecifier* remote [all] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the statistics on the remote device when MDL is configured on a T3 interface or FDL is configured on a T1 channel.

Options

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- all—Shows statistics for all time intervals, rather than statistics for selected time intervals
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show cops info

Syntax show cops info [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about SRC (formerly SDX) sessions and about the COPS layer created for SRC sessions.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show cops statistics

Syntax show cops statistics [delta] [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.

Description Displays statistics about SRC (formerly SDX) sessions.

Options
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show dhcp binding

Syntax

To display information for the specified binding ID:

show dhcp binding *bindingId*

To display information for DHCP client bindings on the specified subnet:

show dhcp binding [local | external | relay-proxy] [*subnetAddress*] [detail] [*filter*]

To display information for DHCP client bindings for the specified IP prefix:

show dhcp binding [local | external | relay-proxy] [*subnetAddress*] ip-prefix *ipPrefix* [detail] [*filter*]

To display information for DHCP client bindings for the specified interface string:

show dhcp binding [local | external | relay-proxy] [*subnetAddress*] interface *string* [detail] [*filter*]

To display information for DHCP client bindings without a lower-layer interface:

show dhcp binding [local | external | relay-proxy] [*subnetAddress*] no-interface [detail] [*filter*]

To display information for DHCP client bindings for the specified agent-circuit-id suboption (suboption 1) string of the DHCP relay agent information option (option 82):

show dhcp binding [local | external | relay-proxy] [*subnetAddress*] circuit-id *string* [detail] [*filter*]

To display information for DHCP client bindings for the specified agent-remote-id suboption (suboption 2) string of the DHCP relay agent information option (option 82):

show dhcp binding [local | external | relay-proxy] [*subnetAddress*] remote-id *string* [detail] [*filter*]

Release Information

Command introduced in JunosE Release 8.1.0.
local, **external**, **relay-proxy**, **interface**, **no-interface**, **ip-prefix**, **circuit-id**, and **remote-id** keywords and *subnetAddress*, *ipAddress*, and *string* variables added in JunosE Release 9.3.0.

Description

Displays information for specified DHCP client bindings, with results ordered by binding ID.

NOTE: This command replaces the deprecated **show ip dhcp-external binding**, **show ip dhcp-external binding-id**, and **show ip dhcp-local binding** commands, which may be removed completely in a future release.

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Options

- *bindingId*—DHCP binding ID for a specific client
- local—Specifies DHCP local server client bindings that meet the display criteria
- external—Specifies DHCP external server client bindings that meet the display criteria
- relay-proxy—Specifies DHCP relay proxy client bindings that meet the display criteria
- *subnetAddress*—IP address of the subnet on which the DHCP clients reside
- *ipPrefix*—IP prefix (address and subnetwork mask) of the DHCP clients; for example, 10.10.10.0/24
- no-interface—Specifies DHCP clients without a lower-layer interface; use this keyword to display information for DHCP client bindings configured over dynamic interfaces for which the lower-layer interface has been shut down
- detail—Shows detailed information for the specified DHCP bindings
- *filter*—See Filtering show Commands on page 4
- *string*—Regular expression string that represents the interface, circuit ID, or remote ID to be matched; you must enclose elements containing a space within double quotes (“*one element*”)

  Each element is either a literal string, a metacharacter, or a combination. You can remove the special meaning of a metacharacter by preceding it with a backslash (\). Regular expressions support the following metacharacters:

  - ^ Matches the beginning of the input string. Alternatively, when used as the first character within brackets—[^]—matches any number except the ones specified within the brackets.
  - $ Matches the end of the input string
  - . (period) Matches any single character, including white space
  - * Matches 0 or more sequences of the immediately previous character or pattern.
  - + Matches 1 or more sequences of the immediately previous character or pattern
  - ? Matches 0 or 1 sequence of the immediately previous character or pattern
  - ( ) Specifies patterns for multiple use when followed by one of the multiplier metacharacters: asterisk *, plus sign +, or question mark ?
  - [ ] Matches any enclosed character; specifies a range of single characters
  - – (hyphen) Used within brackets to specify a range of AS or community numbers
  - _ (underscore) Matches a ^, a $, a comma, a space, a {, or a }. Placed on either side of a string to specify a literal and disallow substring matching. Numerals enclosed by underscores can be preceded or followed by any of the characters listed above
  - | Matches characters on either side of the metacharacter; logical OR

  You must specify the interface string as a regular expression without spaces; for example, fastEthernet1.1/100 or fastEthernet.*100

  The following rules apply for representing nonprintable character sequences in the circuit ID string or the remote ID string:

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- To represent the binary sequence 0d 0a (hex), use the string '\\r\\n'. This consists of four ASCII characters: 5c for \\, 72 for r, 5c for \\, and 6e for n.

  For example, to match the sequence 74 65 73 74 0d 0a 6f 6e 65 (hex), use the string 'test\\r\\none'. In this string, 74 is represented by t, 65 is represented by e, 73 is represented by s, 74 is represented by t, 0d 0a is represented by \\r\\n, 6f is represented by o, 6e is represented by n, and 65 is represented by e.

- To represent the binary sequence 0d 00 (hex), use the string '\\r'. This consists of two ASCII characters: 5c for \\, and 72 for r.

- To represent the binary sequence 0a 00 (hex), use the string '\\n'. This consists of two ASCII characters: 5c for \\, and 6e for n.

  For example, to match the sequence 74 65 73 74 0a 00 6f 6e 65 (hex), use the string 'test\\none'. In this string, 74 is represented by t, 65 is represented by e, 73 is represented by s, 74 is represented by t, 0a 00 is represented by \\n, 0a is represented by \\n, 6f is represented by o, 6e is represented by n, and 65 is represented by e.

- To represent all other cases, use the string '\\xab', where ab is a hex code of the byte. For example, to represent byte 3A, use '\\x3a'. This consists of four ASCII characters: 5c for \\, 78 for x, 33 for 3, and 61 for a.

  As another example, to match the sequence 74 65 73 74 f3 6f 6e 65 (hex), use the string 'test\\xf3one'. In this string, 74 is represented by t, 65 is represented by e, 73 is represented by s, 74 is represented by t, byte F3 is represented by \\xf3, 6f is represented by o, 6e is represented by n, and 65 is represented by e.

Mode Privileged Exec

Related Documentation

- Monitoring DHCP Binding Information

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show dhcp count

Syntax To display counts of DHCP client bindings and interfaces on the specified subnet:

show dhcp count [local | external | relay-proxy] [*subnetAddress*] [*filter*]

To display counts of DHCP client bindings and interfaces for the specified IP prefix:

show dhcp count [local | external | relay-proxy] [*subnetAddress*] ip-prefix *ipPrefix* [*filter*]

To display counts of DHCP client bindings and interfaces for the specified interface string:

show dhcp count [local | external | relay-proxy] [*subnetAddress*] interface *string* [*filter*]

To display counts of DHCP client bindings and interfaces without a lower-layer interface:

show dhcp count [local | external | relay-proxy] [*subnetAddress*] no-interface [*filter*]

To display counts of DHCP client bindings and interfaces for the specified agent-circuit-id suboption (suboption 1) string of the DHCP relay agent information option (option 82):

show dhcp count [local | external | relay-proxy] [*subnetAddress*] circuit-id *string* [*filter*]

To display counts of DHCP client bindings and interfaces for the specified agent-remote-id suboption (suboption 2) string of the DHCP relay agent information option (option 82):

show dhcp count [local | external | relay-proxy] [*subnetAddress*] remote-id *string* [*filter*]

Release Information Command introduced in JunosE Release 9.3.0.

Description Displays counts of DHCP client bindings and interfaces.

Options

- local—Specifies DHCP local server client bindings that meet the display criteria
- external—Specifies DHCP external server client bindings that meet the display criteria
- relay-proxy—Specifies DHCP relay proxy client bindings that meet the display criteria
- *subnetAddress*—IP address of the subnet on which the DHCP clients reside
- *ipPrefix*—IP prefix (address and subnetwork mask) of the DHCP clients; for example, 10.10.10.0/24
- no-interface—Specifies DHCP clients without a lower-layer interface; use this keyword to display count information for DHCP client bindings configured over dynamic interfaces for which the lower-layer interface has been shut down

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- *filter*—See Filtering show Commands on page 4
- *string*—Regular expression string that represents the interface, circuit ID, or remote ID to be matched; you must enclose elements containing a space within double quotes (“*one element*”)

  Each element is either a literal string, a metacharacter, or a combination. You can remove the special meaning of a metacharacter by preceding it with a backslash (\). Regular expressions support the following metacharacters:

  - ^ Matches the beginning of the input string. Alternatively, when used as the first character within brackets—[^]—matches any number except the ones specified within the brackets.
  - $ Matches the end of the input string
  - . (period) Matches any single character, including white space
  - * Matches 0 or more sequences of the immediately previous character or pattern.
  - + Matches 1 or more sequences of the immediately previous character or pattern
  - ? Matches 0 or 1 sequence of the immediately previous character or pattern
  - ( ) Specifies patterns for multiple use when followed by one of the multiplier metacharacters: asterisk *, plus sign +, or question mark ?
  - [ ] Matches any enclosed character; specifies a range of single characters
  - – (hyphen) Used within brackets to specify a range of AS or community numbers
  - _ (underscore) Matches a ^, a $, a comma, a space, a {, or a }. Placed on either side of a string to specify a literal and disallow substring matching. Numerals enclosed by underscores can be preceded or followed by any of the characters listed above
  - | Matches characters on either side of the metacharacter; logical OR

  You must specify the interface string as a regular expression without spaces; for example, fastEthernet1.1/100 or fastEthernet.*100

  The following rules apply for representing nonprintable character sequences in the circuit ID string or the remote ID string:

  - To represent the binary sequence 0d 0a (hex), use the string '\\r\\n'. This consists of four ASCII characters: 5c for \\, 72 for r, 5c for \\, and 6e for n.

    For example, to match the sequence 74 65 73 74 0d 0a 6f 6e 65 (hex), use the string 'test\\r\\none'. In this string, 74 is represented by t, 65 is represented by e, 73 is represented by s, 74 is represented by t, 0d 0a is represented by \\r\\n, 6f is represented by o, 6e is represented by n, and 65 is represented by e.
  - To represent the binary sequence 0d 00 (hex), use the string '\\r'. This consists of two ASCII characters: 5c for \\, and 72 for r.
  - To represent the binary sequence 0a 00 (hex), use the string '\\n'. This consists of two ASCII characters: 5c for \\, and 6e for n.

    For example, to match the sequence 74 65 73 74 0a 00 6f 6e 65 (hex), use the string 'test\\none'. In this string, 74 is represented by t, 65 is represented by e, 73 is

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represented by s, 74 is represented by t, 0a 00 is represented by \\n, 0a is represented by \\n, 6f is represented by o, 6e is represented by n, and 65 is represented by e.

- To represent all other cases, use the string '\\xab', where ab is a hex code of the byte. For example, to represent byte 3A, use '\\x3a'. This consists of four ASCII characters: 5c for \\, 78 for x, 33 for 3, and 61 for a.

  As another example, to match the sequence 74 65 73 74 f3 6f 6e 65 (hex), use the string 'test\\xf3one'. In this string, 74 is represented by t, 65 is represented by e, 73 is represented by s, 74 is represented by t, byte F3 is represented by \\xf3, 6f is represented by o, 6e is represented by n, and 65 is represented by e.

Mode Privileged Exec

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show dhcp-external

Syntax show dhcp-external

Release Information Command introduced in JunosE Release 9.3.0.

Description Displays global configuration information for the DHCP external server application. Currently, this command indicates whether the ability to use a combination of the MAC address and giaddr to uniquely identify DHCP clients with duplicate MAC addresses is enabled or disabled for the DHCP external server application.

Mode Privileged Exec

Related Documentation

- Monitoring DHCP External Server Duplicate MAC Address Setting

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show dhcp host

Syntax To display information for DHCP client bindings on the specified subnet:

show dhcp host [local | external | relay-proxy] [*subnetAddress*] [detail] [*filter*]

To display information for DHCP client bindings for the specified IP prefix:

show dhcp host [local | external | relay-proxy] [*subnetAddress*] ip-prefix *ipPrefix* [detail] [*filter*]

To display information for DHCP client bindings for the specified interface string:

show dhcp host [local | external | relay-proxy] [*subnetAddress*] interface *string* [detail] [*filter*]

To display information for DHCP client bindings without a lower-layer interface:

show dhcp host [local | external | relay-proxy] [*subnetAddress*] no-interface [detail] [*filter*]

To display information for DHCP client bindings for the specified agent-circuit-id suboption (suboption 1) string of the DHCP relay agent information option (option 82):

show dhcp host [local | external | relay-proxy] [*subnetAddress*] circuit-id *string* [detail] [*filter*]

To display information for DHCP client bindings for the specified agent-remote-id suboption (suboption 2) string of the DHCP relay agent information option (option 82):

show dhcp host [local | external | relay-proxy] [*subnetAddress*] remote-id *string* [detail] [*filter*]

Release Information Command introduced in JunosE Release 9.3.0.

Description Displays information for specified DHCP client bindings, with results ordered by IP address. This command displays information only for DHCP client bindings with assigned IP addresses.

Options

- local—Specifies DHCP local server client bindings that meet the display criteria
- external—Specifies DHCP external server client bindings that meet the display criteria
- relay-proxy—Specifies DHCP relay proxy client bindings that meet the display criteria
- *subnetAddress*—IP address of the subnet on which the DHCP clients reside
- *ipPrefix*—IP prefix (address and subnetwork mask) of the DHCP clients; for example, 10.10.10.0/24
- no-interface—Specifies DHCP clients without a lower-layer interface; use this keyword to display information for DHCP client bindings configured over dynamic interfaces for which the lower-layer interface has been shut down

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- detail—Shows detailed information for the specified DHCP bindings
- *filter*—See Filtering show Commands on page 4
- *string*—Regular expression string that represents the interface, circuit ID, or remote ID to be matched; you must enclose elements containing a space within double quotes (“*one element*”)

  Each element is either a literal string, a metacharacter, or a combination. You can remove the special meaning of a metacharacter by preceding it with a backslash (\). Regular expressions support the following metacharacters:

  - ^ Matches the beginning of the input string. Alternatively, when used as the first character within brackets—[^]—matches any number except the ones specified within the brackets.
  - $ Matches the end of the input string
  - . (period) Matches any single character, including white space
  - * Matches 0 or more sequences of the immediately previous character or pattern.
  - + Matches 1 or more sequences of the immediately previous character or pattern
  - ? Matches 0 or 1 sequence of the immediately previous character or pattern
  - ( ) Specifies patterns for multiple use when followed by one of the multiplier metacharacters: asterisk *, plus sign +, or question mark ?
  - [ ] Matches any enclosed character; specifies a range of single characters
  - – (hyphen) Used within brackets to specify a range of AS or community numbers
  - _ (underscore) Matches a ^, a $, a comma, a space, a {, or a }. Placed on either side of a string to specify a literal and disallow substring matching. Numerals enclosed by underscores can be preceded or followed by any of the characters listed above
  - | Matches characters on either side of the metacharacter; logical OR

  You must specify the interface string as a regular expression without spaces; for example, fastEthernet1.1/100 or fastEthernet.*100

  The following rules apply for representing nonprintable character sequences in the circuit ID string or the remote ID string:

  - To represent the binary sequence 0d 0a (hex), use the string '\\r\\n'. This consists of four ASCII characters: 5c for \\, 72 for r, 5c for \\, and 6e for n.

    For example, to match the sequence 74 65 73 74 0d 0a 6f 6e 65 (hex), use the string 'test\\r\\none'. In this string, 74 is represented by t, 65 is represented by e, 73 is represented by s, 74 is represented by t, 0d 0a is represented by \\r\\n, 6f is represented by o, 6e is represented by n, and 65 is represented by e.
  - To represent the binary sequence 0d 00 (hex), use the string '\\r'. This consists of two ASCII characters: 5c for \\, and 72 for r.
  - To represent the binary sequence 0a 00 (hex), use the string '\\n'. This consists of two ASCII characters: 5c for \\, and 6e for n.

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For example, to match the sequence 74 65 73 74 0a 00 6f 6e 65 (hex), use the string 'test\\none'. In this string, 74 is represented by t, 65 is represented by e, 73 is represented by s, 74 is represented by t, 0a 00 is represented by \\n, 0a is represented by \\n, 6f is represented by o, 6e is represented by n, and 65 is represented by e.

- To represent all other cases, use the string '\\xab', where ab is a hex code of the byte. For example, to represent byte 3A, use '\\x3a'. This consists of four ASCII characters: 5c for \\, 78 for x, 33 for 3, and 61 for a.

  As another example, to match the sequence 74 65 73 74 f3 6f 6e 65 (hex), use the string 'test\\xf3one'. In this string, 74 is represented by t, 65 is represented by e, 73 is represented by s, 74 is represented by t, byte F3 is represented by \\xf3, 6f is represented by o, 6e is represented by n, and 65 is represented by e.

Mode Privileged Exec

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show dhcp proxy-client binding

Syntax show dhcp proxy-client binding

Release Information Command introduced in JunosE Release 12.2.0.

Description Displays the configured DHCP proxy client bindings.

Mode Privileged Exec

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show dhcp relay

Syntax show dhcp relay [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays DHCP relay configuration information and IP addresses of configured DHCP servers.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring DHCP Relay Configuration Information

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show dhcp relay proxy statistics

Syntax show dhcp relay proxy statistics [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the statistics of the configured DHCP relay proxy.

Options
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring DHCP Server and DHCP Relay Agent Statistics

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show dhcp relay statistics

Syntax show dhcp relay statistics [detail] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
detail keyword added in JunosE Release 7.2.0.

Description Displays statistics that are common to both DHCP relay and DHCP relay proxy, and also to display DHCP server statistics for DHCP relay only.

Options
- statistics—Displays statistics for the DHCP relay
- detail—Displays a subset of statistics on a per-DHCP server basis
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring DHCP Relay Statistics

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show dhcp server

Syntax show dhcp server [statistics [delta]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the IP address(es) and statistics of the configured DHCP server.

Options
- server—DHCP Proxy Client configuration
- statistics—Displays statistics for the DHCP server or relay agent
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring DHCP Server and DHCP Relay Agent Statistics

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show dhcp summary

Syntax show dhcp summary

Release Information Command introduced in JunosE Release 8.2.0.

Description Displays the currently configured DHCP applications and indicates whether they are active.

Mode Privileged Exec

Related Documentation
- Monitoring Status of DHCP Applications

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show dhcp vendor-option

Syntax show dhcp vendor-option [default | vendor-option-relay-server *ServerAddress*]

Release Information Command introduced in JunosE Release 8.2.0.

Description Displays configuration and action information for the DHCP vendor-option feature.

Options
- default—Displays where DHCP client packets that do not match a configured vendor-string are sent by default
- vendor-option-relay-server—Displays DHCP string matches that are sent to the specified vendor-option server
- *ServerAddress*—IP address of the DHCP vendor-option server

Mode Privileged Exec

Related Documentation
- Monitoring DHCP Option 60 Information

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show dos-protection-group

Syntax show dos-protection-group *groupName* [rates slot *slotNumber*] [*filter*]

Release Information Command introduced in JunosE Release 8.1.0.

Description Displays information about denial of service (DoS) protection groups.

Options

- *groupName*—Name of the DoS protection group
- rate—Calculated values for the minimum rate, maximum rate, minimum burst, and maximum burst
- *slotNumber*—Number of the slot
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show drop-profile

Syntax show drop-profile [*dropProfileName*] [brief | references] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the drop profile.

Options
- *dropProfileName*—Name for the drop profile
- brief —Displays information in a condensed format
- references—Displays QoS profiles which reference the drop profile
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring Drop Profiles for RED and WRED

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show dvmrp destination profile

Syntax show dvmrp destination profile [*profileName*]

Release Information Command introduced in JunosE Release 8.2.0.

Description Displays the configuration and status of a destination profile for dynamic DVMRP tunnels.

Options
- *profileName*—Name of the destination profile

Mode Privileged Exec

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show dvmrp tunnel

Syntax show dvmrp tunnel [detail] [state *tunnelStatus*] [*tunnelName* | [virtual-router *vrName*] ip *ipAddress* [*tunnelName*]] [*filter*]

To display summary information:

show dvmrp tunnel summary [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about DVMRP tunnels.

Options

- detail—Shows detailed tunnel information about DVMRP tunnels
- *tunnelStatus*—State of tunnels for which information is displayed; one of the following:
  - disabled—Tunnel is disabled
  - down—Tunnel is not operational
  - enabled—Tunnel is enabled
  - lower-down—Interface layer below the tunnel is not operational
  - not-present—Tunnel service module is not in slot
  - up—Tunnel is operational
- *tunnelName*—Name of a tunnel for which you want to display information
- *vrName*—Name of a virtual router for which tunnel information is displayed
- *ipAddress*—IP address associated with tunnel
- *filter*—See Filtering show Commands on page 4
- summary—Displays summary information

Mode Privileged Exec

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show egress-queue events

Syntax

show egress-queue events { interface *interfaceType interfaceSpecifier* |
l2tp session *sessionName* | tunnel-server *interfaceType* } [*atmVpi* | *s-vlanIdValue*]
[explicit | summary] [traffic-class *trafficClassName*]
[event-exceeding *eventExceedingNumber*
{ committed | conformed | exceeded | forwarded }] [*filter*]

Release Information

Command introduced before JunosE Release 7.1.0.
atmVpi and *s-vlanIdValue* variables added in JunosE Release 7.1.0.

Description

Displays events that track the number of times egress queuing rates exceed thresholds you have configured.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *sessionName*—Name of the L2TP session
- *atmVpi*—Virtual path identifier of this PVC; number in the range 0–255
- *s-vlanIdValue*—S-VLAN ID number in the range 0–4095
- explicit—Displays events for queues only on the specified interface and not for queues stacked above the interface
- summary—Displays the sum of events for the queues bound to interfaces that are stacked above the specified interface
- *trafficClassName*—Name of a traffic class for which egress queue events are displayed
- *eventExceedingNumber*—Number of events, in the range 1–1073741824
- committed—Displays queues in which the committed drop count exceeds the *eventExceedingNumber*
- conformed—Displays queues in which the conformed drop count exceeds the *eventExceedingNumber*
- exceeded—Displays queues in which the exceeded drop count exceeds the *eventExceedingNumber*
- forwarded—Displays queues in which the forwarding event count exceeds the *eventExceedingNumber*
- *filter*—See Filtering show Commands on page 4

Mode

Privileged Exec, User Exec

Related Documentation

- Monitoring Forwarding and Drop Events on the Egress Queue

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show egress-queue rates

Syntax show egress-queue rates [color] [previous | current] [full | brief]
{ interface *interfaceType interfaceSpecifier* |
l2tp session *sessionName* | tunnel-server *interfaceType* } [*atmVpi* | *s-vlanIdValue*]
[explicit | summary] [traffic-class *trafficClassName*]
[rate-exceeding *rateExceedingNumber* { aggregate | committed | conformed |
exceeded | forwarded | minimum | maximum }] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
atmVpi and *s-vlanIdValue* variables added in JunosE Release 7.1.0.

Description Displays statistics associated with egress queuing rates.

Options

- color—Displays drop rates by color without minimum and maximum rates, rather than as an aggregate of all colors
- previous—Displays rate statistics for the previous rate period; the default option
- current—Displays rate statistics for the current rate period
- full—Displays rate statistics for all queues
- brief—Displays rate statistics only for queues that have queue rate statistics enabled; the default option
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *sessionName* —Name of the L2TP session
- *atmVpi*—Virtual path identifier of this PVC; number in the range 0–255
- *s-vlanIdValue*—S-VLAN ID number in the range 0–4095
- explicit—Displays rate statistics for queues only on the specified interface and not queues stacked above the interface
- summary—Displays the sum of rates for the queues bound to interfaces that are stacked above the specified interface
- *trafficClassName*—Name of a traffic class for which egress queue rate statistics are displayed
- *rateExceedingNumber*—Bits per second in the range 1–1073741824
- aggregate—Displays queues in which the aggregate drop rate exceeds the *rateExceedingNumber*
- committed—Displays queues in which the committed drop rate exceeds the *rateExceedingNumber*
- conformed—Displays queues in which the conformed drop rate exceeds the *rateExceedingNumber*

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- exceeded—Displays queues in which the exceeded drop rate exceeds the *rateExceedingNumber*
- forwarded—Displays queues in which the forwarding rate exceeds the *rateExceedingNumber*
- minimum—Displays queues in which the minimum queue rate exceeds the *rateExceedingNumber*
- maximum—Displays queues in which the maximum queue rate exceeds the *rateExceedingNumber*
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation

- Monitoring Forwarding and Drop Rates on the Egress Queue
- Troubleshooting Memory and Processor Use for Egress Queue Rate Statistics and Events

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show enable-frag-stats

Syntax show enable-frag-stats

Release Information Command introduced in JunosE Release 12.3.0.

Description Displays whether collection and storage of output policy statistics for traffic on tunnel interfaces is performed by the number of fragments or the number of packets. By default, the output policy statistics for tunnel interfaces are stored as a measure of the number of packets.

Mode Privileged Exec

Related Documentation

- Statistics Collection for Output Policies on Tunnel Interfaces Overview
- Configuring Statistics Collection for Output Policies on Tunnel Interfaces
- Verifying Statistics Collection for Output Policies on Tunnel Interfaces
- enable-frag-stats

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show environment

Syntax show environment [all] [table] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the router's physical environment, such as power and temperature.

Options
- all—Displays router environment information and temperature status table
- table—Displays temperature status table only
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ethernet oam lfm discovery

Syntax show ethernet oam lfm discovery *interfaceType interfaceSpecifier*

Release Information Command introduced in JunosE Release 11.1.0.

Description Displays the results of the Ethernet OAM link-fault management discovery process for a particular interface.

Options

- *interfaceType*—One of the following interface types listed in "Interface Types and Specifiers" on page 5:
  - fastEthernet
  - gigabitEthernet
  - tenGigabitEthernet
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5

Mode Privileged Exec, User Exec

Related Documentation

- OAM Discovery Feature
- Monitoring OAM Link-Fault Management Discovery Settings for an Interface

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show ethernet oam lfm statistics

Syntax show ethernet oam lfm statistics *interfaceType interfaceSpecifier*

Release Information Command introduced in JunosE Release 11.1.0.

Description Displays detailed information about the Ethernet OAM link-fault management packets that are processed by a particular interface.

Options

- *interfaceType*—One of the following interface types listed in "Interface Types and Specifiers" on page 5:
  - fastEthernet
  - gigabitEthernet
  - tenGigabitEthernet
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5

Mode Privileged Exec, User Exec

Related Documentation

- Monitoring OAM Link-Fault Management Statistics for an Interface

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show ethernet oam lfm status

Syntax show ethernet oam lfm status *interfaceType interfaceSpecifier*

Release Information Command introduced in JunosE Release 11.1.0.

Description Displays the current Ethernet OAM link-fault management configuration for a particular interface. OAM must be operational on the interface when you run this command.

Options

- *interfaceType*—One of the following interface types listed in "Interface Types and Specifiers" on page 5:
  - fastEthernet
  - gigabitEthernet
  - tenGigabitEthernet
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5

Mode Privileged Exec, User Exec

Related Documentation

- Monitoring OAM Link-Fault Management Configuration for an Interface

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show ethernet oam lfm summary

Syntax show ethernet oam lfm summary

Release Information Command introduced in JunosE Release 11.1.0.

Description Displays a summary of the MAC-layer OAM status of all Ethernet links on which OAM link-fault management is enabled.

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring OAM Link-Fault Management Sessions on All Configured Interfaces

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show exception dump

Syntax show exception dump [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the parameters for transferring core dump files.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show exception monitor

Syntax show exception monitor [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about core dump monitor status and configuration.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show fabric-queue

Syntax show fabric-queue [traffic-class *trafficClassName* [detail] |
egress-slot *egressSlotNumber* | detail |
traffic-class *trafficClassName* egress-slot *egressSlotNumber*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays forwarded and dropped statistics for the queues in the fabric.

Options
- *trafficClassName*—Name of the traffic class
- detail—Provides detailed information about the queues in the fabric
- *egressSlotNumber*—Number of the egress slot
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring Queue Statistics for the Fabric

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show fabric weights

Syntax show fabric weights

Release Information Command introduced in JunosE Release 7.2.0.

Description Displays the multicast-to-unicast ratio for the router switch fabric.

Mode Privileged Exec, User Exec

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show flash

Syntax show flash

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about installed flash cards.

Mode Privileged Exec, User Exec

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show forwarding-table route-holddown

Syntax show forwarding-table route-holddown

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the configured route hold-down time (in seconds) that is allowed after an initial routing table change for the accumulation and subsequent distribution of a set of routing table updates to the line modules.

Mode Privileged Exec, User Exec

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show fpga-stats-monitoring

Syntax show fpga-stats-monitoring

Release Information Command introduced in JunosE Release 13.2.0.

Description Displays configuration details of the FPGA statistics corruption detection utility.

Mode Privileged Exec, User Exec

Related Documentation

- Computation of the Interface and Policy Counters for the Detection of Corruption in the FPGA Statistics
- Configuring the Capability to Detect Corruption in the FPGA Statistics for Policies Managed by the SRC Software
- Detection of Corruption in the FPGA Statistics for Policies of Subscribers Managed by the SRC Software
- Example: Computation of the Threshold Value by Using Interface and Policy Counters for the Detection of Corruption in the FPGA Statistics
- Monitoring the Detection of Corrupted FPGA Statistics Settings
- Scenarios for the Detection of Corruption in the FPGA Statistics and the Determination of the Threshold

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show frame-relay interface

Syntax show frame-relay interface [*interfaceType interfaceSpecifier*] [members] [brief] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays Frame Relay statistics for interfaces.

Options

- *interfaceType*—One of the following interface types listed in Interface Types and Specifiers on page 5*:*
  - serial
  - pos
  - mlframe-relay
  - tunnel—GRE tunnel
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- members—Displays the status of MLFR links
  - displays the status of all MLFR links if you specify the interface type **mlframe-relay** without a specifier for an MLFR bundle
  - displays the status of MLFR links in an MLFR bundle if you specify that bundle
- brief—Displays a summary of interface information
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show frame-relay lip

Syntax show frame-relay lip [interface *interfaceType interfaceSpecifier*] [brief] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays Link Integrity Protocol state and statistics for a link in an MLFR bundle.

Options

- *interfaceType*—One of the following interface types listed in "Interface Types and Specifiers" on page 5:
  - serial
  - pos
- *interfaceSpecifier*—Particular interface in the format *slot/port:link*:
  - *slot*—Number of the chassis slot of the line module in the range 0–13 (ERX14xx models) and 0–6 (ERX7xx models)
  - *port*—Port number in the range 0–2
  - *link*—Number of a link in the range 1–8
- brief—Summarized format
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show frame-relay lmi

Syntax show frame-relay lmi [interface *interfaceType interfaceSpecifier*] [brief] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays state and statistics for the local management interface.

Options

- *interfaceType*—One of the following interface types listed in Interface Types and Specifiers on page 5 *:*
  - serial
  - pos
  - mlframe-relay
  - tunnel—GRE tunnel
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- brief—Summarized format
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show frame-relay map

Syntax show frame-relay map [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the current Frame Relay map entries and information about the Frame Relay connections.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show frame-relay multilinkInterface

Syntax show frame-relay multilinkInterface [*interfaceType interfaceSpecifier*] [brief] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays statistics about all MLFR interfaces or the specified MLFR interfaces.

Options

- *interfaceType*—One of the following interface types listed in "Interface Types and Specifiers" on page 5*:*
  - serial
  - pos
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- brief —Displays a summary of interface information
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show frame-relay pvc

Syntax show frame-relay pvc [*dlci* | interface *interfaceType interfaceSpecifier*]
[brief] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays permanent virtual circuit statistics for Frame Relay or MLFR interfaces.

Options

- *dlci*—DLCI number to be used on the specified subinterface to identify a virtual circuit in the range 16–1007
- *interfaceType*—One of the following interface types listed in "Interface Types and Specifiers" on page 5:
  - serial
  - pos
  - mlframe-relay
  - tunnel—GRE tunnel
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- brief—Displays the abbreviated version of the command output
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show frame-relay subinterface

Syntax show frame-relay subinterface [*interfaceType interfaceSpecifier*] [brief] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays statistics about Frame Relay subinterfaces.

Options

- *interfaceType*—One of the following interface types listed in "Interface Types and Specifiers" on page 5:
  - serial
  - pos
  - mlframe-relay
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- brief—Displays a summary of subinterface information
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation

- Monitoring the Policy Configuration of Frame Relay Subinterfaces

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show frame-relay summary

Syntax show frame-relay summary [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Scans all defined Frame Relay interfaces and circuits and reports aggregate status counts.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ftp-server

Syntax show ftp-server

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the FTP server.

Mode Privileged Exec

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show gre destination profile

Syntax show gre destination profile [*profileName*]

Release Information Command introduced in JunosE Release 8.2.0.

Description Displays the configuration and status of a destination profile for dynamic GRE tunnels.

Options
- *profileName*—Name of the destination profile

Mode Privileged Exec

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show gre tunnel

Syntax

show gre tunnel [detail] [state *tunnelStatus*]
[*tunnelName* | [virtual-router *vrName*] ip *ipAddress*] [*filter*] [summary]

To display summary information:

show gre tunnel summary [*filter*]

Release Information

Command introduced before JunosE Release 7.1.0.

Description

Displays information about GRE tunnels.

Options

- detail—Shows detailed tunnel information about GRE tunnels
- *tunnelStatus*—State of tunnels for which information is displayed; one of the following:
  - disabled—Tunnel is disabled
  - down—Tunnel is not operational
  - enabled—Tunnel is enabled
  - lower-down—Interface layer lower below the tunnel is not operational
  - not-present—Tunnel service module is not in slot
  - up—Tunnel is operational
- *tunnelName*—Name of a tunnel for which you want to display information
- *vrName*—Name of a virtual router for which tunnel information is displayed
- *ipAddress*—IP address associated with tunnel
- *filter*—See Filtering show Commands on page 4
- summary—Displays summary information

Mode

Privileged Exec

Related Documentation

- Monitoring GRE Tunnel Information

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show hardware

Syntax show hardware [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the modules installed in the router.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show hdlc interface

Syntax show hdlc interface [{ *dataRestriction* [*dataRestriction*]* } | full]
[delta] [*stateRestriction*] [{ *interfaceType* } *interfaceSpecifier*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays statistics about specified Cisco HDLC interfaces.

Options

- *dataRestriction*—Specify one or more of the following keywords:
  - config—Displays information about the HDLC interface configuration
  - status—Displays information about the HDLC interface operational status
  - statistics—Displays information about the HDLC interface statistics
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line
- full—Displays configuration, status, and statistics information; equivalent to specifying **config status statistics**
- delta—Displays baselined statistics
- *stateRestriction*—Specify only one of the following keywords:
  - open—Displays an interface that is administratively enabled, which means that the **no ppp shutdown** command is operational
  - closed—Displays an interface that is administratively disabled, which means that the **ppp shutdown** command is operational
  - up—Displays an interface that is up, which means that the LCP has been negotiated
  - down—Displays an interface that is down, which means that the LCP has not been negotiated, the negotiations have failed, or the connection has been terminated
  - lower-layer-down—Displays an interface that is not up and is waiting for the lower layer to come up to initiate negotiations for LCP
  - not present—Displays an interface on which traffic cannot flow because hardware is unavailable
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show hosts

Syntax show hosts [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays a list of configured network servers.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show hotfix

Syntax show hotfix [*hfixFileName*] [detail]

Release Information Command introduced in JunosE Release 7.2.0.

Description Displays information for any hotfix available on the local file system. The information includes name and ID of the hotfix, activation and arming status, and any other required hotfixes.

Options

- *hfixFileName*—Name of a hotfix software file (.hfx) on the local file system
- detail—Displays a synopsis describing the purpose of each hotfix; when you also specify a particular hotfix, displays additional details about that hotfix

Mode User Exec

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show icr-partition

Syntax show icr-partition [*interfaceType interfaceSpecifier* [*vrid*]] [*filter*]

Release Information Command introduced in JunosE Release 10.3.0.

Description Displays ICR partition information for the VRID configured on the specified interface.

Options

- *interfaceType*—One of the following interface types listed in Interface Types and Specifiers on page 5
  - fastEthernet
  - gigabitEthernet
  - tenGigabitEthernet
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *vrid*—Virtual router ID identifier; a number in the range 1– 255
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation

- Monitoring the Configuration of an ICR Partition Attached to an Interface
- Monitoring the Status of ICR Partition Accounting
- Monitoring the Configuration of ICR Partitions

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show icr-partitions

Syntax show icr-partitions [backup | dormant | master | summary] [*filter*]

Release Information Command introduced in JunosE Release 10.3.0.

Description Displays a list of all configured ICR partitions in different states, and a summary of all configured ICR partitions on the router. Includes information about the state of the partition, the partition identifier, the virtual router identifier, and the interface identifier.

Options
- backup—Displays the total number of backup ICR partitions configured on the router
- dormant—Displays the total number of dormant ICR partitions configured on the router
- master—Displays the total number of master ICR partitions configured on the router
- summary—Displays a summary of all ICR partitions configured on the router
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring the Configuration of ICR Partitions
- Monitoring the Configuration of an ICR Partition Attached to an Interface
- Monitoring the Status of ICR Partition Accounting

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show ike certificates

Syntax show ike certificates { all | crl | peer | public-certs | root-cas } [hex-format] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the IKE certificates configured on the E Series router.

NOTE: This command has been replaced by the show ipsec certificates command and may be removed completely in a future release.

Options

- all—Displays all certificates configured on the router
- crl—Displays certificate revocation lists
- peer—Displays peer certificates
- public-certs—Displays public certificates
- root-cas—Displays root CA certificates
- hex-format—Displays certificate data in hexadecimal format
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ike configuration

Syntax show ike configuration [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays a summary of the IKE configuration.

NOTE: This command has been replaced by the show ipsec ike-configuration command and may be removed completely in a future release.

Options

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ike identity

Syntax show ike identity [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the IKE identity configuration.

NOTE: This command has been replaced by the show ipsec identity command and may be removed completely in a future release.

Options

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ike policy-rule

Syntax show ike policy-rule [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays configuration of IKE phase 1 policy rules.

NOTE: This command has been replaced by the show ipsec ike-policy-rule command and may be removed completely in a future release.

Options

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ike sa

Syntax show ike sa [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays IKE phase 1 SAs running on the router.

NOTE: This command has been replaced by the show ipsec ike-sa command and may be removed completely in a future release.

Options

- *filter*—See Filtering show Commands on page 4

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show interfaces

Syntax show interfaces *interfaceType interfaceSpecifier* [delta] [brief] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the current state of the interface you specify.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see "Interface Types and Specifiers" on page 5; for ATM, subinterfaces are not supported by the syntax
- delta—Displays baselined statistics
- brief—Displays a brief summary of the interface
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation

- Monitoring the QoS Configuration of ATM Interfaces
- Monitoring the QoS Configuration of Fast Ethernet, Gigabit Ethernet, and 10-Gigabit Ethernet Interfaces
- Monitoring Interfaces and Policy Lists

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show interfaces lag

Syntax show interfaces *interfaceType interfaceSpecifier* lag [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about a specified Ethernet member link in an IEEE 802.3ad link aggregation group (LAG) bundle.

Options

- *interfaceType*—One of the following interface types listed in Interface Types and Specifiers on page 5
  - fastEthernet
  - gigabitEthernet
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show interfaces lag members

Syntax show interfaces lag [*interfaceSpecifier*] members [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the Ethernet member links in all IEEE 802.3ad link aggregation group (LAG) bundles configured on the router, or about the member links in a specified IEEE 802.3ad LAG bundle.

Options
- *interfaceSpecifier*—LAG interface specifier; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring the QoS Configuration of IEEE 802.3ad Link Aggregation Group Bundles

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show ip

Syntax show ip [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays general information for IP.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip address

Syntax show ip address [*vrfName*] [brief | detail] *localAddress* [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays interface information for the specified IP address.

Options
- *vrfName*—Name of the VRF
- brief—Displays summary information about the interface
- detail—Displays detailed information about the interface
- *localAddress*—IP address of the specific interface
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip as-path-access-list

Syntax show ip as-path-access-list [*accessListName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about AS-path access lists.

Options
- *accessListName*—Name of an AS-path access list
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip bgp

Syntax To display information about networks for all address families or for a specific address family other than the L2VPN address family and the route-target address family:

show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName*]
[*network* [*networkMask* [longer-prefixes]]] [fields *fieldOptions*] [*filter*]

To display information for networks associated with only the L2VPN address family:

show ip bgp { l2vpn all | l2vpn vpls *vplsName* | l2vpn vpws *vpwsName* }
[site-id *siteId* block-offset *blockOffset*] [fields *fieldOptions*] [*filter*]

To display information for networks associated with only the route-target address family:

show ip bgp route-target signaling *rtfPrefix* [longer-prefixes]
[fields *fieldOptions*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
l2vpn and **all** keywords added in JunosE Release 7.1.0.
vpls keyword and *vplsName* variable added in JunosE Release 7.1.0.
site-id keyword and *siteId* variable added in JunosE Release 7.1.0.
block-offset keyword and *blockOffset* 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 *rtMemNlri* variable added in JunosE Release 8.2.0.
rtMemNlri variable replaced by *rtfPrefix* variable in JunosE Release 9.1.0.

Description Displays filtered information about a specified network, or all networks, in the BGP routing table associated with a specified address family or all address families. Only those fields that you specify are displayed, except that the prefix field is always displayed. Default fields can be set with the **default-fields route** command.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- *network*—IP address for which the best matching route is displayed; if no network is specified, displays the fields for all networks
- *networkMask*—Address mask to be applied to the network address
- longer-prefixes—Displays all routes with a prefix that is equal to or more specific than the specified prefix
- l2vpn all—Specifies all VPLS and VPWS instances in the L2VPN address family
- l2vpn vpls *vplsName*—Specifies the VPLS instance with the name *vplsName*

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- l2vpn vpws *vpwsName*—Specifies the VPWS instance with the name *vpwsName*
- *siteId*—Numerical identifier for the site; must be an unsigned 16-bit integer greater than zero that is unique across the VPLS domain
- *blockOffset*—Integer in the range 1–65535 that identifies a block offset for which information is displayed
- route-target signaling—Specifies the route-target address family
- *rtfPrefix*—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
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- in-label—MPLS label for the route; the label received with incoming MPLS frames; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation

- Monitoring BGP-Related Settings for VPWS L2VPNS
- Monitoring Layer2 NLRI for VPLS Instances

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show ip bgp advertised-routes

Syntax To display routes advertised to a neighbor or peer group in all address families or a particular address family:

show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName* |
l2vpn [all] | route-target signaling]
{ neighbors { *ipAddress* | *ipv6Address* } | peer-group *peerGroupName* }
advertised-routes [fields { *fieldOptions* }] [delta] [*filter*]

To display routes advertised to the specified peer group for all VPN address families or for a particular VPN address family after the application of route-target filters advertised by the specified member of the peer group:

show ip bgp [vpnv4 all | vpnv4 vrf *vrfName*] | l2vpn [all] | route-target signaling]
peer-group *peerGroupName* advertised-routes
route-target-filter neighbor { *ipRtfNbrAddress*| *ipv6RtfNbrAddress* }
[fields { *pgfieldOptions* }] [delta] [*filter*]

To display the route that best matches the specified address for all address families or for a particular address family; not available for the L2VPN address family:

show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName*]
{ neighbors { *ipAddress* | *ipv6Address* } | peer-group *peerGroupName* }
advertised-routes *network* [*networkMask* [longer-prefixes]]
[fields { *fieldOptions* }] [delta] [*filter*]

To display routes advertised to a neighbor or peer group with the specified site ID and block offset in the L2VPN address family:

show ip bgp l2vpn all
{ neighbors { *ipAddress* | *ipv6Address* } | peer-group *peerGroupName* }
advertised-routes site-id *siteId* block-offset *blockOffset*
[fields { *fieldOptions* }] [delta] [*filter*]

To display all routes or the route that best matches the specified address advertised to a neighbor or peer group in only the route-target address family:

show ip bgp route-target signaling
{ neighbors { *ipAddress* | *ipv6Address* } | peer-group *peerGroupName* }
advertised-routes *rtfPrefix* [longer-prefixes]
[fields { *fieldOptions*}] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
l2vpn and **all** keywords added in JunosE Release 7.1.0.
site-id keyword and *siteId* variable added in JunosE Release 7.1.0.
block-offset keyword and *blockOffset* variable added in JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.
route-target signaling and **route-target-filter neighbor** keywords and *ipRtfNbrAddress*, *ipv6RtfNbrAddress*, and *rtMemNlri* variables added in JunosE Release 8.2.0.

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rtMemNlri variable replaced by *rtfPrefix* variable in JunosE Release 9.1.0.

Description Displays the routes in the Adj-RIBs-Out table of the specified peer or peer group. For peers, displays routes that have been previously advertised to the peer and the attributes for the routes before the application of outbound policy.

For peer groups, displays routes that will be advertised to the peer group, but includes the full set of route attributes associated with the routes after the application of outbound policy. This command returns an error message unless you first enable rib-out with the **no neighbor rib-out disable** command or the **no rib-out disable** command.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- l2vpn all—Displays information for only the L2VPN address family; the **all** keyword is optional unless you specify a site ID and block offset
- route-target signaling—Specifies the route-target address family
- *ipAddress*—IP address of a neighbor whose routes the router has learned
- *ipv6Address*—IPv6 address of a neighbor whose routes the router has learned
- *peerGroupName*—Name of a BGP peer group
- route-target-filter neighbor—Displays routes actually advertised to the specified peer group member (neighbor); which routes are advertised is determined by the application of the route-target filter received from that neighbor to routes in the peer group's Adj-RIBs-Out table
- *ipRtfNbrAddress*—IP address of a peer group member that has advertised route-target membership filtering information
- *ipv6RtfNbrAddress*—IPv6 address of a peer group member that has advertised route-target membership filtering information
- *network*—Route that best matches this IP address; if no network is specified, displays the fields for all networks
- *networkMask*—Address mask to be applied to the network address
- longer-prefixes—Displays all routes with a prefix that is equal to or more specific than the specified prefix
- *siteId*—Numerical identifier for the site; must be an unsigned 16-bit integer greater than zero that is unique across the VPLS domain
- *blockOffset*—Integer in the range 1–65535 that identifies a block offset for which information is displayed

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- *rtfPrefix*—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
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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; typically, but not always, this is the label advertised to MP-BGP peers
  - 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

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- next-hop-cost—Whether the indirect next hop of the route is unreachable, if not, displays IGP cost to the indirect next hop
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring BGP-Related Settings for VPWS L2VPNS

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show ip bgp aggregate-address

Syntax show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName*] aggregate-address [*ipAddress mask*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about aggregate addresses.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- *ipAddress*—Aggregate address
- *mask*—Aggregate address mask
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip bgp cidr-only

Syntax show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName*] cidr-only [fields { *fieldOptions* }] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information only about routes having nonnatural network masks.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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; typically, but not always, this is the label advertised to MP-BGP peers
  - loc-pref—Local preference for the route

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- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring BGP Routes with Nonnatural Network Masks

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show ip bgp community

Syntax show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName* | l2vpn all | l2vpn vpls *vplsName* | l2vpn vpws *vpwsName* | route-target signaling] community { *communityNumber* | local-as | no-advertise | no-export } [*communityNumber* | local-as | no-advertise | no-export]* [exact-match] [fields *fieldOptions*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
l2vpn and **all** 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 added in JunosE Release 8.2.0.

Description Displays routes that belong to the specified BGP community.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- l2vpn all—Specifies all VPLS and VPWS instances in the L2VPN address family
- l2vpn vpls *vplsName*—Specifies the VPLS instance with the name *vplsName*
- l2vpn vpws *vpwsName*—Specifies the VPWS instance with the name *vpwsName*
- route-target signaling—Specifies the route-target address family
- *communityNumber*—Filters routes according to this community number, specified either as a number in the range 1–4294967295 or in *AA:NN* format (autonomous system number:community number); displays only routes that are members of the specified community
- local-as—Displays only routes belonging to the local-AS community
- no-advertise—Displays only routes belonging to the no-advertise community
- no-export—Displays only routes belonging to the no-export community
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line
- exact-match—Displays only routes that have exactly the specified communities
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields to be displayed, in the format

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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; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

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- weight—Weight of the route
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring BGP-Related Settings for VPWS L2VPNS

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show ip bgp community-list

Syntax show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName* | l2vpn all | l2vpn vpls *vplsName* | l2vpn vpws *vpwsName* | route-target signaling] community-list *communityListName* [exact-match] [fields *fieldOptions*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
l2vpn and **all** 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 added in JunosE Release 8.2.0.

Description Displays routes that belong to the BGP community specified by the community list.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- l2vpn all—Specifies all VPLS and VPWS instances in the L2VPN address family
- l2vpn vpls *vplsName*—Specifies the VPLS instance with the name *vplsName*
- l2vpn vpws *vpwsName*—Specifies the VPWS instance with the name *vpwsName*
- route-target signaling—Specifies the route-target address family
- *communityListName*—Filters routes according to community list; displays only routes that are members of a community on the specified list
- exact-match—Displays only routes that have exactly the specified communities
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- 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; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring BGP-Related Settings for VPWS L2VPNS

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show ip bgp dampened-paths

Syntax show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName* | l2vpn all | l2vpn vpls *vplsName* | l2vpn vpws *vpwsName* | route-target signaling] dampened-paths [fields *fieldOptions*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
l2vpn and **all** 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 added in JunosE Release 8.2.0.

Description Displays information about dampened BGP routes.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- l2vpn all—Specifies all VPLS and VPWS instances in the L2VPN address family
- l2vpn vpls *vplsName*—Specifies the VPLS instance with the name *vplsName*
- l2vpn vpws *vpwsName*—Specifies the VPWS instance with the name *vpwsName*
- route-target signaling—Specifies the route-target address family
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- 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; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring BGP-Related Settings for VPWS L2VPNS

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show ip bgp filter-list

Syntax show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName* | l2vpn all | l2vpn vpls *vplsName* | l2vpn vpws *vpwsName* | route-target signaling] filter-list *asPathAccessListName* [fields *fieldOptions*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
l2vpn and **all** 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 added in JunosE Release 8.2.0.

Description Displays all routes whose AS path matches the specified AS path access list.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- l2vpn all—Specifies all VPLS and VPWS instances in the L2VPN address family
- l2vpn vpls *vplsName*—Specifies the VPLS instance with the name *vplsName*
- l2vpn vpws *vpwsName*—Specifies the VPWS instance with the name *vpwsName*
- route-target signaling—Displays information for only the route-target address family
- *asPathAccessListName*—Name of AS path access list to filter routes; displays only routes that have AS paths matching the specified list
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- 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; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation

- Monitoring BGP-Related Settings for VPWS L2VPNS

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show ip bgp flap-statistics

Syntax To display information about dampened routes for address families other than the L2VPN and route-target signaling address families:

show ip bgp
[ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName*] flap-statistics
[*network* [*networkMask*]] [*filter*]

To display information about dampened routes for only the route-target signaling address family:

show ip bgp route-target signaling flap-statistics [*rtfPrefix* | *rtfAddress*] [*filter*]

To display information about dampened routes for only the L2VPN address family:

show ip bgp
{ l2vpn all | l2vpn vpls *vplsName* | l2vpn vpws *vpwsName* } flap-statistics
[site-id *siteId* block-offset *blockOffset*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
l2vpn and **all** keywords added in JunosE Release 7.1.0.
vpls keyword and *vplsName* variable added in JunosE Release 7.1.0.
site-id keyword and *siteId* variable added in JunosE Release 7.1.0.
block-offset keyword and *blockOffset* 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 *rtMemNlri* variable added in JunosE Release 8.2.0.
rtMemNlri variable replaced by two variables, *rtfAddress* and *rtfPrefix*, in JunosE Release 9.1.0.

Description Displays information about routes that are dampened.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- *network*—IP address of the network for which you want information displayed; if no network is specified, the fields are displayed for all networks
- *networkMask*—Address mask to be applied to the network address
- route-target signaling—Displays information for only the route-target address family
- *rtfPrefix*—Prefix representing the route-target membership NLRI (RT-MEM-NLRI), in the format *asNumber*:*extendedCommunity*/*prefixLength* (for example, 320:320:524/36) where:

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  - *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
- *rtfAddress*—*rtfPrefix* with a prefix length of 96; representing the route-target membership NLRI (RT-MEM-NLRI), in the format *asNumber* **:** *extendedCommunity* (for example, 320:320:524 or 320:50.2.3.4:524)
- l2vpn all—Specifies all VPLS and VPWS instances in the L2VPN address family
- l2vpn vpls *vplsName*—Specifies the VPLS instance with the name *vplsName*
- l2vpn vpws *vpwsName*—Specifies the VPWS instance with the name *vpwsName*
- *siteId*—Numerical identifier for the site; must be an unsigned 16-bit integer greater than zero that is unique across the VPLS domain
- *blockOffset*—Integer in the range 1–65535 that identifies a block offset for which information is displayed
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring BGP-Related Settings for VPWS L2VPNS

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show ip bgp inconsistent-as

Syntax show ip bgp
[ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName* |
route-target signaling] inconsistent-as [fields { *fieldOptions* }] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
route-target signaling keywords added in JunosE Release 8.2.0.

Description Displays information only about routes with inconsistent AS paths.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Displays information for only the route-target address family
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- in-label—MPLS label for the route; the label received with incoming MPLS frames; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip bgp neighbors

Syntax show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName* | l2vpn [all] | route-target signaling]
neighbors [*ipAddress* | *ipv6Address*] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
l2vpn and **all** keywords 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.

Description Displays information about the BGP neighbors.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- l2vpn—Displays information for only the L2VPN address family
- all—Optional keyword; has no effect
- route-target signaling—Displays information for only the route-target address family
- *ipAddress*—IP address of a neighbor whose routes the router has learned
- *ipv6Address*—IPv6 address of a neighbor whose routes the router has learned
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation

- Monitoring BGP-Related Settings for VPWS L2VPNS

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show ip bgp neighbors dampened-routes

Syntax show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName* | l2vpn [all] | route-target signaling]
neighbors { *ipAddress* | *ipv6Address* }
dampened-routes [fields *fieldOptions*] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
l2vpn and **all** keywords 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.

Description Displays information about routes with a dampening history for the specified BGP neighbor.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- l2vpn—Displays information for only the L2VPN address family
- all—Optional keyword; has no effect
- route-target signaling—Displays information for only the route-target address family
- *ipAddress*—IP address of a neighbor whose routes the router has learned
- *ipv6Address*—IPv6 address of a neighbor whose routes the router has learned
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- 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; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring BGP-Related Settings for VPWS L2VPNS

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show ip bgp neighbors paths

Syntax show ip bgp
[ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName* |
route-target signaling] neighbors { *ipAddress* | *ipv6Address* } paths [*regularExpression*] [*filter*]

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.

Description Displays path information for the specified BGP neighbor.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Displays information for only the route-target address family
- *ipAddress*—IP address of a neighbor whose routes the router has learned
- *ipv6Address*—IPv6 address of a neighbor whose routes the router has learned
- *regularExpression*—Regular expression to match the AS path. See **show ip bgp regexp** for information about regular expressions.
- *filter*—See Filtering show Commands on page 4

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show ip bgp neighbors received prefix-filter

Syntax show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName*] neighbors { *ipAddress* | *ipv6Address* } received prefix-filter [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
ipv6Address variable added in JunosE Release 8.0.0.

Description Displays prefix-list outbound route filters received from the neighbor.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- *ipAddress*—IP address of a neighbor whose routes the router has learned
- *ipv6Address*—IPv6 address of a neighbor whose routes the router has learned
- *filter*—See Filtering show Commands on page 4

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show ip bgp neighbors received-routes

Syntax show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName* | l2vpn all | route-target signaling]
neighbors { *ipAddress* | *ipv6Address* } received-routes
[fields *fieldOptions*] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
l2vpn and **all** keywords 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.

Description Displays routes originating from the specified BGP neighbor before inbound policy is applied.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- l2vpn—Displays information for only the L2VPN address family
- all—Optional keyword; has no effect
- route-target signaling—Displays information for only the route-target address family
- *ipAddress*—IP address of a neighbor whose routes the router has learned
- *ipv6Address*—IPv6 address of a neighbor whose routes the router has learned
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- 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; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring BGP-Related Settings for VPWS L2VPNS

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show ip bgp neighbors routes

Syntax show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName* | l2vpn [all] | route-target signaling]
neighbors { *ipAddress* | *ipv6Address* } routes
[fields *fieldOptions*] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
l2vpn and **all** keywords 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.

Description Displays routes originating from the specified BGP neighbor after inbound policy is applied.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- l2vpn—Displays information for only the L2VPN address family
- all—Optional keyword; has no effect
- route-target signaling—Displays information for only the route-target address family
- *ipAddress*—IP address of a neighbor whose routes the router has learned
- *ipv6Address*—IPv6 address of a neighbor whose routes the router has learned
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- 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; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring BGP-Related Settings for VPWS L2VPNS

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show ip bgp network

Syntax To display information about a prefix configured for all address families or for a specific address family other than the route-target address family:

show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName*] network [*networkNumber* [[mask] *networkMask*]] [*filter*]

To display information about a prefix configured for the route-target address family:

show ip bgp route-target signaling network [*rtfPrefix*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
route-target signaling keywords and *rtMemNlri* variable added in JunosE Release 9.0.0.
rtMemNlri variable replaced by *rtfPrefix* variable in JunosE Release 9.1.0.

Description Displays information about a potentially originated prefix that was configured with the **network** command.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- *networkNumber*—IP address of the network for which you want information displayed; if no network is specified, the fields are displayed for all networks
- *networkMask*—Address mask to be applied to the network address
- route-target signaling—Displays information for only the route-target address family
- *rtfPrefix*—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

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- *prefixLength*—Number that specifies the length of the route prefix, in the range 32–96

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip bgp next-hops

Syntax show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName* | l2vpn all | l2vpn vpls *vplsName* | l2vpn vpws *vpwsName* } | route-target signaling] next-hops [*ipAddress*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
l2vpn and **all** 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 added in JunosE Release 8.2.0.

Description Displays information about BGP next hops.

Options
- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- l2vpn all—Specifies all VPLS and VPWS instances in the L2VPN address family
- l2vpn vpls *vplsName*—Specifies the VPLS instance with the name *vplsName*
- l2vpn vpws *vpwsName*—Specifies the VPWS instance with the name *vpwsName*
- route-target signaling—Displays information for only the route-target address family
- *ipAddress*—Displays information only for this indirect next hop
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring BGP-Related Settings for VPWS L2VPNS
- Monitoring BGP Next Hops for VPWS L2VPNS
- Monitoring BGP Next Hops for VPLS

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show ip bgp paths

Syntax show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName* | l2vpn all | l2vpn vpls *vplsName* | l2vpn vpws *vpwsName* | route-target signaling] paths [*regularExpression*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
l2vpn and **all** 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 added in JunosE Release 8.2.0.

Description Displays information about BGP AS paths.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- l2vpn all—Specifies all VPLS and VPWS instances in the L2VPN address family
- l2vpn vpls *vplsName*—Specifies the VPLS instance with the name *vplsName*
- l2vpn vpws *vpwsName*—Specifies the VPWS instance with the name *vpwsName*
- route-target signaling—Displays information for only the route-target address family
- *regularExpression*—Regular expression to match that specifies the desired AS paths. See **show ip bgp regexp** for information about regular expressions.
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation

- Monitoring BGP-Related Settings for VPWS L2VPNS

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show ip bgp peer-group

Syntax show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName* | l2vpn [all] | route-target signaling] peer-group [*peerGroupName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
l2vpn and **all** keywords added in JunosE Release 7.1.0.
route-target signaling keywords added in JunosE Release 8.2.0.

Description Displays information about BGP peer groups.

Options
- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- l2vpn—Displays information for only the L2VPN address family
- all—Optional keyword; has no effect
- route-target signaling—Displays information for only the route-target address family
- *peerGroupName*—Name of the BGP peer group
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring BGP-Related Settings for VPWS L2VPNS

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show ip bgp quote-regexp

Syntax show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName* | l2vpn all | l2vpn vpls *vplsName* | l2vpn vpws *vpwsName* | route-target signaling] quote-regexp *pathExpression* [fields *fieldOptions*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
l2vpn and **all** 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 added in JunosE Release 8.2.0.

Description Displays information about BGP routes whose AS path matches the specified regular expression. Regular expressions match numbers for which the specified path is a substring—for example, if you specify *20*, *200* matches because *20* is a substring of *200*. You can disallow substring matching by using the underscore (_) metacharacter to constrain matching to the specified pattern; for example, *_20_*. You can use output filtering on the display.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- l2vpn all—Specifies all VPLS and VPWS instances in the L2VPN address family
- l2vpn vpls *vplsName*—Specifies the VPLS instance with the name *vplsName*
- l2vpn vpws *vpwsName*—Specifies the VPWS instance with the name *vpwsName*
- route-target signaling—Displays information for only the route-target address family
- quote-regexp—Indicates that only a single element is matched
- *pathExpression*—Regular expression string describing the AS path or community to be matched. You must enclose elements containing a space within double quotes (" *one element"*).

  Each element is either an AS number, a metacharacter, or a combination:

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^ Matches the beginning of the path unless appearing as the first character within brackets; see below

[^] Matches any AS number except the ones specified within the brackets

$ Matches the end of the path

{ Matches the beginning of an AS_SET

} Matches the end of an AS_SET

(Matches the start of an AS_CONFED_SET or AS_CONFED_SEQ

) Matches the end of an AS_CONFED_SET or AS_CONFED_SEQ

. Matches any single character

* Matches zero or more occurrences of the preceding character

+ Matches one or more occurrences of the preceding character

? Matches zero or one occurrence of the preceding character. To use the ? metacharacter in a regular expression, you must enter the following key sequence: Ctrl-v-?. Otherwise, the CLI considers this to be a request for assistance in completing the command, rather than understanding it as a metacharacter.

() Used with a multiplier metacharacter (*, +, ?) to specify patterns for multiple use. You can specify that a parenthesis be construed as a literal token instead of a metacharacter by immediately preceding it with a backslash:

\(matches the beginning of an AS_CONFED_SET or AS_CONFED_SEQ

\) matches the end of an AS_CONFED_SET or AS_CONFED_SEQ.

[ ] Matches any enclosed character; specifies a range of single characters

- Used within brackets to specify a range of AS numbers

_ Matches a ^, a $, a comma, a space, a {, or a }. Placed on either side of a string to specify a literal and disallow substring matching. Numerals enclosed by underscores can be preceded or followed by any of the characters listed above.

| Matches characters on either side of the metacharacter; logical OR

- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- 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; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring BGP-Related Settings for VPWS L2VPNS

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show ip bgp regexp

Syntax show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName* | l2vpn all | l2vpn vpls *vplsName* | l2vpn vpws *vpwsName* | route-target signaling] regexp *pathExpression* [fields *fieldOptions*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
l2vpn and **all** 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 added in JunosE Release 8.2.0.

Description Displays information about BGP routes whose AS path matches the specified regular expression. Regular expressions match numbers for which the specified path is a substring—for example, if you specify *20*,*200* matches because *20* is a substring of *200*. You can disallow substring matching by using the underscore (_) metacharacter to constrain matching to the specified pattern; for example,*_20_*. You can use output filtering on the display.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- l2vpn all—Specifies all VPLS and VPWS instances in the L2VPN address family
- l2vpn vpls *vplsName*—Specifies the VPLS instance with the name *vplsName*
- l2vpn vpws *vpwsName*—Specifies the VPWS instance with the name *vpwsName*
- route-target signaling—Displays information for only the route-target address family
- regexp—Indicates that multiple elements can be matched
- *pathExpression*—Regular expression string describing the AS paths to be matched. You do not have to enclose elements containing a space within quotation marks (“ *one element*”).

  Each element is either an AS number, a metacharacter, or a combination:

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^ Matches the beginning of the path unless appearing as the first character within brackets; see below

[^] Matches any AS number except the ones specified within the brackets

$ Matches the end of the path

{ Matches the beginning of an AS_SET

} Matches the end of an AS_SET

(Matches the start of an AS_CONFED_SET or AS_CONFED_SEQ

) Matches the end of an AS_CONFED_SET or AS_CONFED_SEQ

. Matches any single character

* Matches zero or more occurrences of the preceding character

+ Matches one or more occurrences of the preceding character

? Matches zero or one occurrence of the preceding character. To use the ? metacharacter in a regular expression, you must enter the following key sequence: Ctrl-v-?. Otherwise, the CLI considers this to be a request for assistance in completing the command, rather than understanding it as a metacharacter.

() Used with a multiplier metacharacter (*, +, ?) to specify patterns for multiple use. You can specify that a parenthesis be construed as a literal token instead of a metacharacter by immediately preceding it with a backslash:

\(matches the beginning of an AS_CONFED_SET or AS_CONFED_SEQ

\) matches the end of an AS_CONFED_SET or AS_CONFED_SEQ.

[ ] Matches any enclosed character; specifies a range of single characters

- Used within brackets to specify a range of AS numbers

_ Matches a ^, a $, a comma, a space, a {, or a }. Placed on either side of a string to specify a literal and disallow substring matching. Numerals enclosed by underscores can be preceded or followed by any of the characters listed above.

| Matches characters on either side of the metacharacter; logical OR

- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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

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- 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; typically, but not always, this is the label advertised to MP-BGP peers
- 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
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring BGP-Related Settings for VPWS L2VPNS

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show ip bgp summary

Syntax show ip bgp [ipv4 unicast | ipv4 multicast | vpnv4 all | vpnv4 vrf *vrfName* | l2vpn all | l2vpn vpls *vplsName* | l2vpn vpws *vpwsName* | route-target signaling] summary [fields *fieldOptions*] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
l2vpn and **all** 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 added in JunosE Release 8.2.0.

Description Displays filtered information about the status of all BGP connections. Only those fields that you specify are displayed, except that the prefix field is always displayed. Default fields can be set with the **default-fields peer** command.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- l2vpn all—Specifies all VPLS and VPWS instances in the L2VPN address family
- l2vpn vpls *vplsName*—Specifies the VPLS instance with the name *vplsName*
- l2vpn vpws *vpwsName*—Specifies the VPWS instance with the name *vpwsName*
- route-target signaling—Displays information for only the route-target address family
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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]*
  - 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

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- 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

- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring BGP-Related Settings for VPWS L2VPNS

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show ip cache flow

Syntax show ip cache flow [history | active [brief | detail [*interfaceType interfaceNumber*]]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays IP flow cache operational statistics.

Options

- history—Displays a history (running total) of cache flows since the J-Flow statistics started or were last cleared
- active—Displays information for only active flows
- brief—Displays a summary rather than detailed information for active flows
- detail—Displays detailed information for active flows
- *interfaceType*—Interface type against which all flow records are filtered
- *interfaceNumber*—Interface number against which all flow records are filtered
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip cache flow aggregation

Syntax show ip cache flow aggregation *aggregationType* [history | active [brief | detail]] [*filter*]

Release Information Command introduced before JunosE Release 8.1.0.

Description Displays IP flow cache operational statistics for an aggregation cache.

Options

- *aggregationType*—Displays information for an aggregation cache flow
- history—Displays a history (running total) of cache flows since the J-Flow statistics started or were last cleared
- active—Displays information for only active flows
- brief—Displays a summary rather than detailed information for active flows
- detail—Displays detailed information for active flows
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip community-list

Syntax show ip community-list [*listName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays community list information.

Options
- *listName*—Name of a community list
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip demux interface

Syntax show ip demux interface *interfaceType interfaceSpecifier* [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about a subscriber interface.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ip dhcp-capture

Syntax show ip dhcp-capture [*filter*]

Release Information Command introduced in JunosE Release 7.3.0.

Description Displays the per-interface DHCP packet capture configuration information.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring Duplicate MAC Addresses Use By DHCP Local Server Clients

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show ip dhcp-external binding

Syntax show ip dhcp-external binding [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays binding for DHCP external clients.

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 **show dhcp binding** command.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring DHCP Bindings (Displaying IP Address-to-MAC Address Bindings)

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show ip dhcp-external binding-id

Syntax show ip dhcp-external binding-id [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays binding information for DHCP clients.

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 **show dhcp binding** command.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring DHCP Bindings (Displaying DHCP Bindings Based on Binding ID)

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show ip dhcp-external configuration

Syntax show ip dhcp-external configuration [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays configuration information for the DHCP external server.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring DHCP Local Server Configuration

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show ip dhcp-external statistics

Syntax show ip dhcp-external statistics [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays statistics for the DHCP external server.

Options
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring DHCP External Server Statistics

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show ip dhcp-local

Syntax show ip dhcp-local

Release Information Command introduced in JunosE Release 7.2.0.

Description Displays DHCP local server configuration information, including the status of SNMP traps and client roaming support.

Mode Privileged Exec

Related Documentation
- Monitoring DHCP Local Server Configuration

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show ip dhcp-local auth

Syntax show ip dhcp-local auth { config | statistics [delta] } [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.

Description Displays information about the DHCP local server authentication configuration.

Options
- config—Specifies that configuration information is shown
- statistics—Specifies that statistics are shown
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring DHCP Local Server Authentication Information

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show ip dhcp-local binding

Syntax show ip dhcp-local binding [*ipAddress* | interface *interfaceType interfaceValue*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays DHCP local server binding information for DHCP local server clients.

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 **show dhcp binding** command.

Options

- *ipAddress*—IP address of the subscriber's personal computer
- *interfaceType*—Interface type; see "Interface Types and Specifiers" on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation

- Monitoring DHCP Bindings (Local Server Binding Information)

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show ip dhcp-local excluded

Syntax show ip dhcp-local excluded [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays IP addresses that have been excluded. These are addresses that the DHCP local server does not allocate because they are already used by devices on the subnet.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring the Maximum Number of Available Leases

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show ip dhcp-local leases

Syntax show ip dhcp-local leases [*ipAddress*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays DHCP local server lease and binding information.

Options
- *ipAddress*—Specific IP address
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring the Maximum Number of Available Leases

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show ip dhcp-local limits

Syntax show ip dhcp-local limits [interface *InterfaceType InterfaceSpecifier* | *filter*]

Release Information Command introduced before JunosE Release 7.1.0.
interface keyword and *interfaceType* and *interfaceSpecifier* variables added in JunosE Release 7.1.0.

Description Displays the maximum number of leases available for each VPI/VCI, VLAN, and Ethernet subnetwork, or for a particular interface or subinterface from the DHCP local server.

Options
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring the Maximum Number of Available Leases

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show ip dhcp-local pool

Syntax show ip dhcp-local pool [groups] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the configuration of DHCP local pools.

Options
- groups—Displays DHCP local server pool group information
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring DHCP Local Address Pools

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show ip dhcp-local reserved

Syntax show ip dhcp-local reserved [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the static IP address/MAC address pairs that the DHCP local server supplies in standalone mode. This command does not display address pairs that the DHCP local server supplies in non-PPP equal access mode.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring Static IP Address and MAC Address Pairs Supplied by DHCP Local Server

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show ip dhcp-local statistics

Syntax show ip dhcp-local statistics [interface [*interfaceType interfaceSpecifier*]] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays statistics for the DHCP local server.

Options
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring DHCP Local Server Statistics

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show ip domain-lookup

Syntax show ip domain-lookup [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the name servers that you have specified on the router with the **ip name-server** command.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ip dvmrp

Syntax show ip dvmrp [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays DVMRP information for a virtual router.

Options
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip dvmrp interface

Syntax show ip dvmrp interface
{ { [brief] [*interfaceType interfaceSpecifier*] } | summary } [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays DVMRP parameters for the specified interfaces.

Options
- brief—Specifies that a summary rather than detailed information is displayed
- delta—Displays baselined statistics
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip dvmrp mroute

Syntax show ip dvmrp mroute [*group* [*sourceAddress* [*sourceMask*]]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about DVMRP routes to multicast groups.

Options

- *group*—IP address of a specific multicast group
- *sourceAddress*—IP address of the network on which the source resides
- *sourceMask*—Subnet mask
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip dvmrp neighbor

Syntax show ip dvmrp neighbor [*interfaceType interfaceSpecifier* [*ipAddress*]]
[brief] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about DVMRP neighbors.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *ipAddress*—IP address of the neighbor for which information is displayed
- brief—Specifies that a summary rather than detailed information is displayed
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip dvmrp route

Syntax show ip dvmrp route
[*ipAddress* [*addressMask*] | *interfaceType interfaceSpecifier*] [brief] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about DVMRP routes.

Options
- *ipAddress*—IP address for which the best route is displayed
- *addressMask*—Subnet mask applied to IP address
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- brief—Displays a summary rather than detailed information
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip dvmrp routeNextHop

Syntax show ip dvmrp routeNextHop
[*ipAddress* [*addressMask* [*interfaceType interfaceSpecifier*]]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the next hop.

Options

- *ipAddress*—IP address of the network
- *addressMask*—Mask for the subnet
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip explicit-paths

Syntax show { mpls | ip } explicit-paths
[detail | { name *pathName* | identifier *pathNum* }] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays all explicit paths or a particular explicit path in a non–E Series implementation. See the show mpls explicit-paths command for a complete description and syntax definitions.

Mode Privileged Exec, User Exec

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show ip extcommunity-list

Syntax show ip extcommunity-list [*listName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays all extended-community lists or a specific extended-community list.

Options
- *listName*—Name of the extended-community list
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ip flow

Syntax show ip flow { export | sampling }

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays configuration values for either J-Flow sampling or export.

Options
- export—Displays export configuration settings
- sampling—Displays sampling configuration settings

Mode Privileged Exec, User Exec

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show ip forwarding-table slot

Syntax show ip forwarding-table slot *slotNumber*

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about routing table memory, load errors, and status for the forwarding table of a specific line module. This command is not supported on ES2 10G, ES2 10G Uplink, and ES2 10G ADV LMs, and also on slots that contain line modules that are in inactive or standby states.

Options
- *slotNumber*—Number of the slot containing the line module

Mode Privileged Exec, User Exec

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show ip http

Syntax show ip http [scalar | server | statistics [delta]] [*filter*]

Release Information Command introduced in JunosE Release 7.2.0.

Description Displays information about HTTP local servers, information about the parameters configured for the HTTP local server, and statistics about the connections to the HTTP local server.

Options

- scalar—Displays information about the connections to the HTTP local server
- server—Displays information about the parameters configured for the HTTP local server
- statistics—Display statistics about the connections to the HTTP local server
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation

- Monitoring the Configuration of the HTTP Local Server

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show ip igmp

Syntax show ip igmp [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays IGMP information for a virtual router.

Options
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip igmp groups

Syntax show ip igmp groups [count] [*groupAddress*]
[*interfaceType interfaceSpecifier*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about statically joined and directly connected groups learned by means of IGMP.

Options

- count—Displays the total number of groups learned
- *groupAddress*—IP address of the group
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip igmp interface

Syntax show ip igmp interface [brief | count] [delta]
[*interfaceType interfaceSpecifier*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays IGMP information for interfaces on which you enabled IGMP.

Options

- brief—Displays a summary of the information
- count—Displays the total number of interfaces on which you enabled IGMP
- delta—Displays baselined statistics
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip igmp mapped-oif

Syntax show ip igmp mapped-oif [*interfaceType interfaceSpecifier*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the current mappings to all mapped outgoing interfaces or to the specified outgoing interface.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip igmp membership

Syntax show ip igmp membership [*groupAddress*] [tracked]
[*interfaceType interfaceSpecifier*] [*filter*]

Release Information Command introduced in JunosE Release 8.2.0.

Description Displays IGMP membership information for multicast groups and (S, G) channels.

Options

- *groupAddress*—Address of the group whose membership information you want to display
- tracked—Displays interface information only for interfaces where explicit host tracking is enabled
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip igmp oif-map

Syntax show ip igmp oif-map [*mapName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays all outgoing interface (OIF) maps or the OIF map for the specified interface.

Options
- *mapName*—Outgoing interface multicast map name
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip igmp oif-mapping

Syntax show ip igmp oif-mapping *mapName* [*groupAddress* [*sourceAddress*]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the mapped OIF that would be assigned to a given map name, group address, and source address.

Options
- *mapName*—Outgoing interface multicast map name
- *groupAddress*—IP address of a multicast group
- *sourceAddress*—IP address of a multicast source
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip igmp-proxy

Syntax show ip igmp-proxy [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays IGMP proxy parameters on a virtual router.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip igmp-proxy groups

Syntax show ip igmp-proxy groups [*groupAddress* | count] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about multicast groups that IGMP proxy interfaces reported.

Options
- *groupAddress*—IP address of a group for which you want to display information
- count—Displays the number of groups that IGMP proxy reported
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip igmp-proxy interface

Syntax show ip igmp-proxy interface [brief] [delta] [*interfaceType interfaceSpecifier*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the interface on which you configured IGMP proxy.

Options

- brief—Displays summarized information
- delta—Displays baselined statistics
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip igmp ssm-mapping

Syntax show ip igmp ssm-mapping [*groupAddress*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the SSM mapping state and the source list mapping associated with a multicast group address, based on the static SSM mapping configuration.

Options
- *groupAddress*—IP address of the group
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip interface

Syntax show ip interface [vrf *vrfName*]
{ { [brief | detail | other | show-virtual-router [*virtualRouterName*]]
[*interfaceType interfaceSpecifier*] } | summary } [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
show-virtual-router keyword and *virtualRouterName* variable added in JunosE Release 7.3.0.
other keyword added in JunosE Release 8.0.0.

Description Displays current state of all IP interfaces or the IP interfaces you specify. The default is all interface types and all interfaces.

Options

- *vrfName*—Name of the VRF
- brief—Displays a brief summary of IP status and configuration information
- detail—Shows a detailed display of IP status and configuration information
- other—Shows hidden interfaces and routes to the local address that are used internally so that from a given CE you can now ping the local address of any VRF that has a VPN overlapping a VPN to which the CE belongs
- *virtualRouterName*—Name of the virtual router
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- summary—Shows a detailed summary of IP status and configuration
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation

- Monitoring the QoS Configuration of IP Interfaces
- Monitoring the Policy Configuration of IP Interfaces
- Monitoring the Packet Mirroring Configuration of IP Interfaces

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show ip interface shares

Syntax show ip interface shares [vrf *vrfName*] [brief | detail] [*interfaceType interfaceSpecifier*] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about shared IP interfaces for all IP interfaces or for the IP interfaces you specify. The default is all interface types and all interfaces.

Options

- *vrfName*—Name of the VRF
- brief—Displays a brief summary of IP status and configuration information
- detail—Shows a detailed display of IP status and configuration information
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip interface vrf

Syntax show ip interface vrf *vrfName* [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays current state of all interfaces on the specified VRF.

Options
- *vrfName*—Name of the VRF
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip local alias

Syntax show ip local alias [*aliasName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the aliases for local address pools configured on your system.

Options
- *aliasName*—Name of a specific alias
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ip local pool

Syntax show ip local pool [*poolName* | statistics [delta]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the local address pools configured on the router.

Options
- *poolName*—Name of a specific local address pool
- statistics—Specifies that local pool statistics are to be shown
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ip local shared-pool

Syntax show ip local shared-pool [*poolName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the shared local address pools configured on the router.

Options
- *poolName*—Name of a specific shared local address pool
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ip mac-validate interface

Syntax show ip mac-validate interface *interfaceType interfaceSpecifier*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the status of MAC address validation on the physical interface that you specify.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ip match-policy-list

Syntax show ip match-policy-list [*listName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays all the policy lists or the policy list that you specify. The default is all policy lists.

Options
- *listName*—Name of a policy list
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ip mirror interface

Syntax show ip mirror interface [vrf *vrfName*] [*interfaceType interfaceSpecifier*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the interface mirroring configuration of all interfaces, or for a specific interface on which mirroring is enabled.

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 show secure policy-list command.**

Options

- *vrfName*—Name of the VRF
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5

Mode Privileged Exec

Related Documentation

- Monitoring the Packet Mirroring Configuration of IP Interfaces

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show ip mobile binding

Syntax show ip mobile binding [nai { *user*@*realm* | @*realm* | @ } | *ipAddress* | summary] [*filter*]

Release Information Command introduced in JunosE Release 9.0.0.

Description Displays the contents of the binding table for the Mobile IP home agent in the current virtual router. By default, all mobility bindings are displayed.

Options

- *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
- summary—Displays aggregate information about the binding table
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip mobile home-agent

Syntax show ip mobile home-agent

Release Information Command introduced in JunosE Release 9.0.0.

Description Displays configuration information for the Mobile IP home agent in the current virtual router. This information includes access list name, registration lifetime, replay protection time, and reverse tunnel setting.

Mode Privileged Exec, User Exec

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show ip mobile host

Syntax show ip mobile host [nai { *user*@*realm* | @*realm* | @ } | *ipAddress*] [*filter*]

Release Information Command introduced in JunosE Release 9.0.0.

Description Displays configuration information for all or specified mobile nodes or domain users.

Options

- *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
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip mobile profile

Syntax show ip mobile profile

Release Information Command introduced in JunosE Release 9.0.0.

Description Displays the name of the interface profile associated with the Mobile IP home agent in the current virtual router.

Mode Privileged Exec, User Exec

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show ip mobile secure foreign-agent

Syntax show ip mobile secure foreign-agent [*ipAddress*] [*filter*]

Release Information Command introduced in JunosE Release 9.0.0.

Description Displays the security associations configured for all Mobile IP foreign agents in the current virtual router.

Options
- *ipAddress*—IP address of the foreign agent
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip mobile secure host

Syntax show ip mobile secure host [nai { *user*@*realm* | @*realm* | @ } | *ipAddress*] [*filter*]

Release Information Command introduced in JunosE Release 9.0.0.

Description Displays the security associations configured for all mobile nodes or domains in the current virtual router.

Options

- *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
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip mobile traffic

Syntax show ip mobile traffic [delta]

Release Information Command introduced in JunosE Release 9.0.0.

Description Displays protocol statistics for the Mobile IP home agent traffic, including advertisements, solicitations, registrations, registration errors, and security violations.

Options
- delta—Displays baselined statistics

Mode Privileged Exec, User Exec

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show ip mroute

Syntax show ip mroute [*groupIpAddress* [*sourceIpAddress*]]
[summary | count | oif-detail | statistics] [active [*bandwidth*]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
active keyword added in JunosE Release 8.1.0.
oif-detail keyword added in JunosE Release 12.0.0.

Description Displays information about all or specified multicast routes.

Options
- *groupIpAddress*—IP address of a multicast group
- *sourceIpAddress*—IP address of a multicast source
- summary—Displays brief information about the multicast routes
- count—Displays the number of groups and sources
- oif-detail—Displays details of the join interfaces corresponding to the mapped interface when OIF-mapping is configured
- statistics—Displays statistics for packets received through multicast routes that the router has added to the multicast routing table and established on the appropriate line modules
- active—Displays active mroutes
- *bandwidth*—Admission bandwidth for active multicast routes that is greater than the specified bandwidth threshold; default is 4000 bps
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring Multicast Forwarding Entries
- Monitoring Active Multicast Routes
- Monitoring Multicast Entries in a Source or Group
- Monitoring Multicast Routes When OIF Mapping Is Configured
- Monitoring Multicast Statistics
- Monitoring Summary Information of Multicast Routes

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show ip multicast protocols

Syntax show ip multicast protocols [brief] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the multicast protocols enabled on the router.

Options
- brief—Displays a summary rather than detailed information
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring Multicast Protocols Enabled on the Router

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show ip multicast routing

Syntax show ip multicast routing

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the status of multicast routing on the router.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring the IP Multicast Status on a Virtual Router

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show ip nat inside rule

Syntax show ip nat inside rule [*accessListName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays NAT inside rule information.

Options
- *accessListName*—Name of the access list
- *filter*—See Filtering show Commands on page 4

Mode User Exec

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show ip nat outside rule

Syntax show ip nat outside rule [*accessListName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays NAT outside rule information.

Options
- *accessListName*—Name of the access list
- *filter*—See Filtering show Commands on page 4

Mode User Exec

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show ip nat pool

Syntax show ip nat pool [*poolName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays NAT address pool information.

Options
- *poolName*—Name of the pool
- *filter*—See Filtering show Commands on page 4

Mode User Exec

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show ip nat statistics

Syntax show ip nat statistics [global [pool] | pool [*poolName*]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays internal NAT statistics.

Options
- global—Displays system-wide statistics
- pool—Displays address pool statistics
- *poolName*—Name of the pool
- *filter*—See Filtering show Commands on page 4

Mode User Exec

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show ip nat translations

Syntax

show ip nat translations [static | dynamic] [gre | icmp | tcp | udp]* [verbose] [*filter*]

show ip nat translations inside *insideLocalIpAddress* [*localPort*] [*insideGlobalIpAddress* [*globalPort*]] [verbose] [*filter*]

show ip nat translations outside *outsideGlobalIpAddress* [*globalPort*] [*outsideLocalIpAddress* [*localPort*]] [verbose] [*filter*]

Release Information

Command introduced before JunosE Release 7.1.0
gre keyword added in JunosE Release 7.3.0.

Description

Displays translations that reside in the NAT translation table.

Options

- static—Displays static translations
- dynamic—Displays dynamic translations
- tcp—Displays TCP port translations
- udp—Displays UDP port translations
- icmp—Displays ICMP port translations
- gre—Displays GRE translations
- *—Indicates that you can specify one or more protocol keywords, in any order, in a list in the command line
- inside—Specifies an inside address
- *insideLocalIpAddress*—Inside local IP address
- *localPort*—Local port value
- *insideGlobalIpAddress*—Inside global IP address
- *globalPort*—Global port value
- outside—Specifies an outside address
- *outsideGlobalIpAddress*—Inside global IP address
- *outsideLocalIpAddress*—Inside local IP address
- verbose—Additionally displays the time since creation and time since last use for each translation entry
- *filter*—See Filtering show Commands on page 4

Mode

User Exec

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show ip nfs

Syntax show ip nfs [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the interface that the current virtual router uses to exchange messages with the NFS server.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip ospf

Syntax show ip ospf [vrf *vrfName*] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays general information about OSPF routing processes.

Options
- *vrfName*—Name of the VRF
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip ospf border-routers

Syntax show ip ospf border-routers [vrf *vrfName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays routing table entries for area border and AS boundary routers.

Options
- *vrfName*—Name of the VRF
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip ospf database

Syntax show ip ospf database [vrf *vrfName*] [database-summary | area *areaId* | *areaIdInt* | { asbr-summary | external | network | nssa-external | router | summary | opaque-area | link-local } [*ipAddress* | internal]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
areaId and *areaIdInt* variables added in JunosE Release 7.3.0.

Description Displays the full IP OSPF database, a summary of the database, the number of LSAs available in each category, or the number of LSAs that have reached the maximum age in each category.

Options

- *vrfName*—Name of the VRF
- database-summary—Displays summary of the database
- *areaId*—Area ID as an IP address
- *areaIdInt*—Area ID as an integer
- asbr-summary—Displays AS boundary router summary link states
- external—Displays External link states
- network—Displays network link states
- nssa-external—Displays NSSA external link states
- router—Displays router link states
- summary—Displays network summary link states
- opaque-area—Displays traffic-engineering opaque LSA states
- link-local—Displays link local link states
- *ipAddress*—Link-state IP address
- internal—Displays internal LSA information
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip ospf interface

Syntax show ip ospf interface [vrf *vrfName*] [*interfaceType interfaceSpecifier*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays a list of OSPFv2 interfaces.

Options

- *vrfName*—Name of the VRF
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip ospf internal-statistics

Syntax show ip ospf internal-statistics [vrf *vrfName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays internal OSPFv2 statistics.

Options
- *vrfName*—Name of the VRF
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip ospf neighbors

Syntax show ip ospf neighbors [vrf *vrfName*] [history] [*neighborAddress*] [*interfaceType interfaceSpecifier*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
history keyword added in JunosE Release 7.3.0.

Description Displays a list of OSPF neighbors.

Options

- *vrfName*—Name of the VRF
- history—Displays history of events for the listed neighbors
- *neighborAddress*—Router ID of a specified neighbor
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip ospf remote-neighbor interface

Syntax show ip ospf remote-neighbor [*ipAddress*] interface [vrf *vrfName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays interfaces associated with OSPF remote neighbors.

Options
- *ipAddress*—Source IP address of a remote neighbor
- *vrfName*—Name of the VRF
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip ospf spf-log

Syntax show ip ospf spf-log [vrf *vrfName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays how often and why the router has run a full SPF calculation.

Options
- *vrfName*—Name of the VRF
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip ospf virtual-links

Syntax show ip ospf virtual-links [vrf *vrfName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the parameters and the current state of OSPF virtual links. A virtual link is a logical connection between two routers. To establish or maintain connectivity to the backbone, you can configure virtual links through nonbackbone areas. Virtual links serve to connect physically separate components of the backbone—he two endpoints of a virtual link area.

Options
- *vrfName*—Name of the VRF
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip pim

Syntax show ip pim

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays general PIM router-level information.

Mode Privileged Exec, User Exec

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show ip pim auto-rp

Syntax show ip pim auto-rp [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about rendezvous point routers and the RP mapping agent in a PIM sparse mode environment.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip pim bsr

Syntax show ip pim bsr [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays BSR information and the group prefixes for which the local router is a C-RP in a PIM sparse mode environment.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip pim data-mdt

Syntax show ip pim data-mdt [senders | receivers] [group *groupIPAddress*] [source *sourceIPAddress*] [summary | count]

Release Information Command introduced in JunosE Release 8.2.0.

Description Displays the configuration and status of a data MDT. There is no **no** version.

Options
- senders—Displays data MDTs on which the provider edge transmits data
- receivers—Displays data MDTs on which the provider edge receives data
- *groupIPAddress*—IP address of the group
- *sourceIPAddress*—IP address of the source
- summary—Displays a summary of configuration for each data MDT
- count—Displays the number of data MDTs

Mode Privileged Exec

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show ip pim dense-mode sg-state

Syntax show ip pim dense-mode sg-state
[group *groupAddress* [source *sourceAddress*]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information for each SG entry that PIM dense mode knows about.

Options
- *groupAddress*—IP address of a multicast group
- *sourceAddress*—IP address of a multicast source
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip pim interface

Syntax show ip pim interface { summary | [*interfaceType interfaceSpecifier*] [count] [*filter*] }

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about each PIM dense mode interface.

Options

- summary—Displays the number of configured, enabled, and disabled PIM dense mode, PIM sparse mode, and PIM sparse-dense mode interfaces
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- count—Displays the number of incoming and outgoing PIM control packets
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip pim neighbor

Syntax show ip pim neighbor [*interfaceType interfaceSpecifier*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about each PIM neighbor that the router has discovered.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip pim remote-neighbor

Syntax show ip pim remote-neighbor [*ipAddress*] [count] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about all PIM remote neighbors or the specified remote neighbor.

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.

Options

- *ipAddress*—IP address of a remote neighbor
- count—Display the number of remote neighbors
- *filter*—See Filtering show Commands on page 4

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show ip pim rp

Syntax show ip pim rp { *groupAddress* | mapping } [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about PIM group-to-RP mappings.

Options
- *groupAddress*—Address of a group for which you want to view group-to-RP mappings
- mapping—Displays all group-to-RP mappings that the router has recorded
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip pim rp-hash

Syntax show ip pim rp-hash *groupAddress* [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Shows which RP a multicast group is using.

Options
- *groupAddress*—IP address of multicast group for which you want to view the RP
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip pim sparse-mode sg-state

Syntax show ip pim sparse-mode sg-state [group *groupAddress* [source *sourceAddress*] | rp *rpAddress*] [count] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information for each SG entry that PIM sparse mode knows about.

Options

- *groupAddress*—IP address of a multicast group
- *sourceAddress*—IP address of a multicast source
- *rpAddress*—IP address of an RP router
- count—Displays the number of SG entries
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip pim sparse-mode unicast-route

Syntax show ip pim sparse-mode unicast-route [*routeAddress routeMask*] [count] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the unicast routes that PIM sparse mode is using.

Options

- *routeAddress*—IP address associated with a unicast route
- *routeMask*—Network mask associated with a unicast route
- count—Shows the number of unicast routes that PIM sparse mode is using.
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip pim spt-threshold

Syntax show ip pim spt-threshold [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the threshold for switching to the shortest-path-tree at a PIM designated router.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip prefix-list

Syntax show ip prefix-list [*listName* [seq *seqNum* | *ipPrefix* [longer | first-match]]] [*filter*]

To display summary or detail info:

show ip prefix-list { summary | detail } [*listName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about prefix lists.

Options

- *listName*—Prefix list for which information is displayed
- *seqNum*—Sequence number of prefix list entry for which information is displayed
- *ipPrefix*—Prefix in the format *IPbaseaddress / length*; for example, 10.10.10.0/24
- longer—Displays all entries for a prefix that are equal to or more specific than the specified prefix
- first-match—Displays only an entry that matches the specified prefix
- *filter*—See Filtering show Commands on page 4
- summary—Displays summary information
- detail—Displays detailed information

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show ip prefix-tree

Syntax show ip prefix-tree [*treeName* [*ipPrefix* [longer]]] [*filter*]

To display summary or detail info:

show ip prefix-tree { summary | detail } [*treeName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about prefix trees.

Options

- *treeName*—Name of the prefix tree
- *ipPrefix*—Prefix in the format *IPbaseaddress/length*; for example, 10.10.10.0/24
- longer—Displays all entries for a prefix that are equal to or more specific than the specified prefix
- *filter*—See Filtering show Commands on page 4
- summary—Displays summary information
- detail—Displays detailed information

Mode Privileged Exec

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show ip profile

Syntax show ip profile *profileName* [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about a specific IP profile.

Options
- *profileName*—Name of the profile you want to display
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip protocols

Syntax show ip protocols [vrf *vrfName*] [summary] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays detailed information about IP protocols currently configured on the router.

Options
- *vrfName*—Displays information about protocols only for the specified VRF
- summary—Displays only a list of currently configured protocols
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip redistribute

Syntax show ip redistribute [*vrfName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays configured route redistribution policy.

Options
- *vrfName*—Name of the VRF
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip rip

Syntax show ip rip [vrf *vrfName*] [brief] [ifconfig] [*ipAddress*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays limited RIP general status information.

Options

- *vrfName*—Name of the VRF
- brief—Displays limited information
- ifconfig—Displays address and interface configuration information instead of the default operational data
- *ipAddress*—Displays information only for specific RIP network
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip rip database

Syntax show ip rip database [vrf *vrfName*] [all] [inactive] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays route entries in the RIP routing table (RIP database).

Options
- *vrfName*—Name of the VRF
- all—Displays active and inactive routes learned through RIP updates
- inactive—Displays routes the router will discard in the immediate future
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip rip network

Syntax show ip rip network [vrf *vrfName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the networks associated with the RIP routing process.

Options
- *vrfName*—Name of the VRF
- *filter*—See Filtering show Commands on page 4

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show ip rip peer

Syntax show ip rip peer [vrf *vrfName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays all RIP neighbors, with limited information about each peer.

Options
- *vrfName*—Name of the VRF
- *filter*—See Filtering show Commands on page 4

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show ip rip statistics

Syntax show ip rip statistics [vrf *vrfName*] [*ipAddress*] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays global statistics associated with the RIP routing process. If you specify an IP address, additionally displays statistics for that interface.

Options
- *vrfName*—Name of the VRF
- *ipAddress*—Address of IP interface where RIP is running; identifies RIP network
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip rip summary-address

Syntax show ip rip summary-address [vrf *vrfName*] [*ipAddress* [*ipMask*]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays RIP summary addresses.

Options
- *vrfName*—Name of the VRF
- *ipAddress*—Address of IP interface where RIP is running
- *ipMask*—IP mask of the specific address
- *filter*—See Filtering show Commands on page 4

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show ip route

Syntax show ip route [vrf *vrfName*] [*destination* [*ipMask*] [detail]] [all] [*protocol*] [*filter*]

To display summary information:

show ip route summary [vrf *vrfName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays current state of the routing table.

Options

- *vrfName*—Displays the contents of the IP routing table associated with a VRF
- *destination*—Specifies the IP address or domain name of the host to show
- *ipMask*—IP mask of the specific address to show
- detail—Displays detailed information about the specific prefix; currently shows the tag added by means of the **ip route** command
- all—Displays all routes in the routing table inserted from all protocols (not just the *best* routes that are used for forwarding)
- *protocol*—One of the following protocols for which you want to display the best routes in the routing table; no routes are displayed if routes for the specified protocol are not present in the routing table
  - access—Displays the best access-server routes (BGP) in the routing table
  - access-internal—Displays the best access-internal routes in the routing table
  - bgp—Displays the best BGP routes in the routing table
  - bgp-tunnel—Displays the best BGP tunnel routes in the routing table
  - dvmrp—Displays the best DVMRP routes in the routing table
  - isis—Displays the best IS-IS routes in the routing table
  - ldp—Displays the best LDP tunnel routes in the routing table
  - local—Displays the best locally connected routes in the routing table
  - mbgp—Displays the best MBGP routes in the routing table
  - ospf—Displays the best OSPF routes owned by in the routing table
  - other—Displays the best internal control routes in the routing table
  - rip—Displays the best RIP routes in the routing table
  - rsvp—Displays the best RSVP tunnel routes in the routing table

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- static—Displays the best static routes added by network management to the routing table
- static-rpf—Displays the best static RPF routes added by network management to the routing table

- summary—Displays summary counters for all routes in the IP routing table
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip route slot

Syntax show ip route slot *slotNumber* [vrf *vrfName*] *ipAddress*

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the interface and next hop for an IP address in the routing table of a line module.

Options
- *slotNumber*—Number of slot containing the line module
- *vrfName*—Name of the VRF
- *ipAddress*—IP address to look up in the routing table

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show ip rpf-route

Syntax show ip rpf-route [vrf *vrfName*] [*destination* [*ipMask*] [detail]] [all] [*protocol*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays routes that the router can use to verify source addresses in multicast packets.

Options

- *vrfName*—Displays the contents of the IP routing table associated with a VRF
- *destination*—Specifies the IP address or domain name of the host to show
- *ipMask*—IP mask of the specific address to show
- detail—Displays detailed information about the specific prefix; currently shows the tag added by means of the **ip route** command
- all—Displays all routes in the routing table inserted from all protocols (not just the *best* routes that are used for forwarding)
- *protocol*—One of the following protocols for which you want to display the best routes in the routing table; no routes are displayed if routes for the specified protocol are not present in the routing table
  - access—Displays the best access-server routes (BGP) in the routing table
  - access-internal—Displays the best access-internal routes in the routing table
  - bgp—Displays the best BGP routes in the routing table
  - bgp-tunnel—Displays the best BGP tunnel routes in the routing table
  - dvmrp—Displays the best DVMRP routes in the routing table
  - isis—Displays the best IS-IS routes in the routing table
  - ldp—Displays the best LDP tunnel routes in the routing table
  - local—Displays the best locally connected routes in the routing table
  - mbgp—Displays the best MBGP routes in the routing table
  - ospf—Displays the best OSPF routes owned by in the routing table
  - other—Displays the best internal control routes in the routing table
  - rip—Displays the best RIP routes in the routing table
  - rsvp—Displays the best RSVP tunnel routes in the routing table
  - static—Displays the best static routes added by network management to the routing table
  - static-rpf—Displays the best static RPF routes added by network management to the routing table
- *filter*—See Filtering show Commands on page 4

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Mode Privileged Exec, User Exec

Related Documentation
- Displaying Available Routes for Reverse-Path Forwarding

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show ip service-profile

Syntax show ip service-profile [*profileName*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information for IP service profiles.

Options
- *profileName*—Name of a specific service profile

Mode Privileged Exec

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show ip socket statistics

Syntax show ip socket statistics [detailed] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays BSD socket-emulation statistics.

Options
- detailed—Displays detailed statistics for each TCP socket
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip ssh

Syntax show ip ssh [detail] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the current state of the SSH server.

Options
- detail—Displays detailed information
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ip static

Syntax show ip static [*vrfName*] [*ipAddress ipMask* [all]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays general status information for static routes added by network management to the routing table.

Options
- *vrfName*—Name of the VRF
- *ipAddress*—IP address to show
- *ipMask*—IP mask of the specific address to show
- all—Displays all routes starting at the specified prefix
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip-subscriber

Syntax show ip-subscriber [*subscriberId* | interface *interfaceType interfaceSpecifier* | username *userName* | virtual-router *vrName* | summary] [detail] [*filter*]

Release Information Command introduced in JunosE Release 8.1.0.
filter variable added in JunosE Release 9.1.0.

Description Displays information about the active IP subscribers that are created by subscriber manager.

Options

- *subscriberId*—ID of the IP subscriber
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *userName*—Username of a specific active subscriber
- *vrName*—Name of the virtual router to which interfaces of active IP subscribers are bound
- summary—Displays the number of IP subscribers for each virtual router
- detail—Displays detailed information about IP subscribers
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ip traffic

Syntax show ip traffic [*vrfName*] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays statistics about IP traffic.

Options
- *vrfName*—Name of the VRF
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip tunnel reassembly statistics

Syntax show ip tunnel reassembly statistics [detail] [all] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
delta keyword added in JunosE Release 8.0.0.

Description Displays statistics on the reassembly of fragmented tunnel packets within the current virtual router context.

Options
- detail—Displays detailed reassembly statistics that include packets reassembled or discarded per protocol
- all—Displays reassembly statistics for all virtual routers on the router
- delta—Displays baselined reassembly statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip tunnel-route

Syntax show ip tunnel-route [vrf *vrfName*] [*destination* [*ipMask*] [detail]] [all] [*protocol*] [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.

Description Displays current state of the IPv4 tunnel routing table.

Options

- *vrfName*—Contents of the IPv4 tunnel routing table associated with a VRF
- *destination*—IP address or domain name of the host to show
- *ipMask*—IP mask of the specific address to show
- detail—Displays detailed information about the specific prefix
- all—Displays all routes in the IPv4 tunnel routing table inserted from all protocols, not just the best routes
- *protocol*—One of the following protocols for which you want to display the best route or all routes in the tunnel routing table; no routes are displayed if routes for the specified protocol are not present in the tunnel routing table

  NOTE: **Other protocol options are available in the CLI, but they are not applicable to the tunnel routing table.**

  - bgp-tunnel—Displays the BGP tunnel routes in the tunnel routing table
  - ldp—Displays the LDP tunnel routes in the tunnel routing table
  - rsvp—Displays the RSVP tunnel routes in the tunnel routing table
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip udp statistics

Syntax show ip udp statistics [*vrfName*] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays UDP statistics.

Options
- *vrfName*—Name of the VRF
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip vrf

Syntax show ip vrf [[detail] [*vrfName*] | interfaces [detail]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information for a specified VRF and its associated interfaces or all VRFs and their associated interfaces for the current virtual router context.

Options
- detail—Displays detailed VRF information
- *vrfName*—Name of the VRF for which information is displayed
- interfaces—Displays all VRFs in the virtual router and their associated interfaces
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ip vrrp

Syntax show ip vrrp [brief] [interface *interfaceType interfaceSpecifier* [*vrid*]] [*filter*]

To display summary information:

show ip vrrp summary [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information for the VRID configured on the specified interface, all VRIDs configured on the specified interface, or summary information.

Options

- brief—Displays a brief summary of VRIDs
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *vrid*—Virtual router ID
- *filter*—See Filtering show Commands on page 4
- summary—Displays a summary count on all configured VRIDs

Mode Privileged Exec

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show ip vrrp neighbor

Syntax show ip vrrp neighbor [interface *interfaceType interfaceSpecifier* [*vrid*]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays summary of all neighbors known to the VRRP router configured on the specified interface. A neighbor—a router that shares a given VRID with the VRRP router—is known to the VRRP router only when the neighbor becomes a master for an IP address and sends VRRP advertisements to that effect. If a router sharing the VRID has not yet become a master, then the local router remains unaware of this neighbor and this command does not display that neighbor.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *vrid*—Virtual router ID
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ip vrrp statistics

Syntax show ip vrrp statistics [global | [interface *interfaceType interfaceSpecifier* [*vrid*]] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays global statistics, interface statistics, or statistics per interface and VRID.

Options

- global—Displays global counters
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *vrid*—Virtual router ID
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ip vrrp tracked-objects

Syntax show ip vrrp tracked-objects [*filter*]

Release Information Command introduced in JunosE Release 7.2.0.

Description Displays VRRP tracked objects.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ipsec ca identity

Syntax show ipsec ca identity { *name* | all } [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information for a specific IKE CA identity or for all IKE CA identities that are configured on the E Series router and that support the online digital certificate process.

Options
- *name*—Name of specific CA
- all—Displays information for all CAs
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ipsec certificates

Syntax show ipsec certificates { all | crl | peer | public-certs | root-cas } [hex-format] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the IKE certificates configured on the E Series router.

NOTE: This command is replacing the show ike certificates command. The show ike certificates command may be removed completely in a future release.

Options

- all—Displays all certificates configured on the router
- crl—Displays certificate revocation lists
- peer—Displays peer certificates
- public-certs—Displays public certificates
- root-cas—Displays root CA certificates
- hex-format—Displays certificate data in hexadecimal format
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ipsec identity

Syntax show ipsec identity [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the IKE identity configuration.

NOTE: This command is replacing the show ike identity command. The show ike identity command may be removed completely in a future release.

Options

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ipsec ike-configuration

Syntax show ipsec ike-configuration [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays a summary of the IKE configuration.

NOTE: This command is replacing the show ike configuration command. The show ike configuration command may be removed completely in a future release.

Options

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ipsec ike-policy-rule

Syntax show ipsec ike-policy-rule [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays configuration of IKE phase 1 policy rules.

NOTE: This command is replacing the show ike policy-rule command. The show ike policy-rule command may be removed completely in a future release.

Options

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ipsec ike-sa

Syntax show ipsec ike-sa [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays IKE phase 1 SAs running on the router.

NOTE: This command is replacing the show ike sa command. The show ike sa command may be removed completely in a future release.

Options

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ipsec key mypubkey rsa

Syntax show ipsec key mypubkey rsa [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.

Description Displays the ISAKMP/IKE public key configured on the router. The public key is generated as part of a public/private key pair used to perform RSA authentication for IKE SA negotiations.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ipsec key pubkey-chain rsa

Syntax show ipsec key pubkey-chain rsa { summary | address *ipAddress* | name *identityString* } [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.

Description Displays the ISAKMP/IKE public key that a remote peer uses for RSA authentication without the need for a digital certificate.

Options

- summary—Displays a brief summary of the remote peers for which peer public keys are configured on the router
- *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
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ipsec lifetime

Syntax show ipsec lifetime

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the configured default lifetime of phase II SAs.

Mode Privileged Exec

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show ipsec local-endpoint

Syntax show ipsec local-endpoint [transport-virtual-router *transportVirtualRouter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the address and transport virtual router of local endpoints.

Options
- *transportVirtualRouter*—Name of virtual router that includes source or destination addresses or both assigned to tunnel interfaces

Mode Privileged Exec

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show ipsec option

Syntax show ipsec option

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the dead peer detection (DPD), Network Address Translation Traversal (NAT-T) status (enabled or disabled), and invalid cookie transmission status (enabled or disabled) for the current virtual router.

Mode Privileged Exec, User Exec

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show ipsec transform-set

Syntax show ipsec transform-set [*transformSetName*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays transform sets configured on the router.

Options
- *transformSetName*—Name of a transform set

Mode Privileged Exec

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show ipsec transport interface

Syntax show ipsec transport interface [detail] [application *applicationType*]
[state { up | down }] [*interfaceName* |
[virtual-router *vrName*] destination *destAddress* | local *localAddress*] [*filter*]

To display summary information:

show ipsec transport interface summary

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays all details, including statistics, of IPsec transport connections that match the specified criteria.

Options

- detail—Includes statistics for the displayed connection
- *applicationType*—Application protected by IPsec transport connections
- state—Displays connections that are in the specified state, up or down
- *interfaceName*—Connection number that you want to display
- *vrName*—Name of a virtual router. If you do not specify a virtual router, the router displays connections on the current virtual router context. Notice that the local and destination IP addresses exist in the current virtual router context.
- *destAddress*—IP address of remote endpoint
- *localAddress*—IP address of local endpoint
- *filter*—See Filtering show Commands on page 4
- summary—Displays a summary of all IPsec transport connections

Mode Privileged Exec

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show ipsec transport profile

Syntax show ipsec transport profile [*profileName*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the configuration of an IPsec transport profile.

Options
- *profileName*—Name of the profile that you want to display

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show ipsec tunnel

Syntax show ipsec tunnel [*tunnelName* | [virtual-router *vrName*] ip *ipAddress*] [state { *adminState* | *operStatus* }] [*filter*] [detail] [delta]

To display summary information:

show ipsec tunnel summary [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about tunnels that are configured on a specific virtual router.

Options

- *tunnelName*—Name of tunnel
- *vrName*—Name of virtual router on which tunnels are configured
- *ipAddress*—IP address used by tunnels
- state—Restricts display to tunnels in one of the following states:
  - *adminState*—Administrative state of enabled or disabled
  - *operStatus*—Operational state of up, down, lower-down, or not-present
- *filter*—See Filtering show Commands on page 4
- detail—Displays configuration and statistics of tunnels
- delta—Displays baselined statistics
- summary—Displays a summary of all tunnels configured on the router

Mode Privileged Exec

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show ipsec tunnel profile

Syntax show ipsec tunnel profile [detail] [*profileName*] [*filter*]

Release Information Command introduced in JunosE Release 7.3.0.

Description Displays information about all existing IPsec tunnel profiles or the specified tunnel profile.

Options
- detail—Displays detailed information about the profile
- *profileName*—Name of a specific IPsec tunnel configuration profile
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ipv6

Syntax show ipv6 [vrf *vrfName*]

Release Information Command introduced before JunosE Release 7.1.0.
vrf keyword and *vrfName* variable added in JunosE Release 7.2.0.

Description Displays general information for IPv6.

Options
- *vrfName*—Name of the VRF

Mode Privileged Exec, User Exec

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show ipv6 access-list

Syntax show ipv6 access-list [*accessListName*] [detail] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays access list information about the specified IPv6 access list.

Options
- *accessListName*—Name of the access list
- detail—Displays detailed information about the access list
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show ipv6 address

Syntax show ipv6 address [vrf *vrfName*] [brief | detail] *localAddress*

Release Information Command introduced before JunosE Release 7.1.0.
vrf keyword and *vrfName* variable added in JunosE Release 7.2.0.

Description Displays interface information for the specified IPv6 address.

Options
- *vrfName*—Name of the VRF
- brief—Displays summary information about the interface
- detail—Displays detailed information about the interface
- *localAddress*—IPv6 address of the specific interface

Mode Privileged Exec, User Exec

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show ipv6 dhcpv6-local auth config

Syntax show ipv6 dhcpv6-local auth config

Release Information Command introduced in JunosE Release 12.2.0.

Description Displays information about the DHCPv6 local server authentication configuration.

Mode Privileged Exec

Related Documentation
- Monitoring DHCPv6 Local Server Authentication Information

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show ipv6 dhcpv6-local binding

Syntax show ipv6 dhcpv6-local binding [*ipv6Prefix*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the mapping between the token or enduring IPv6 prefix and the DHCP unique ID (DUID) of the client computer.

Options
- *ipv6Prefix*—IPv6 address of the subscriber's personal computer
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring DHCPv6 Local Server Binding Information

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show ipv6 dhcpv6-local dns-domain-searchlist

Syntax show ipv6 dhcpv6-local dns-domain-searchlist [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the DHCPv6 local server's DNS search list.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring DHCPv6 Local Server DNS Search Lists

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show ipv6 dhcpv6-local dns-servers

Syntax show ipv6 dhcpv6-local dns-servers [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays DNS servers that are configured on the DHCPv6 local server.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring DHCPv6 Local Server DNS Servers

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show ipv6 dhcpv6-local limits

Syntax show ipv6 dhcpv6-local limits [interface [*interfaceType interfaceSpecifier*]] [*filter*]

Release Information Command introduced in JunosE Release 13.3.0.

Description Displays the maximum number of IPv6 prefixes available for each ATM interface, VLAN, Ethernet subnet, or POS access interface, or for a particular interface or subinterface from the DHCPv6 local server.

NOTE:

- Before you issue this command, you must enable the DHCPv6 local server by using the service dhcpv6-local command.
- The DHCPv6 local server is not supported over the POS access interface.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation

- Monitoring the Maximum Number of IPv6 Prefixes Delegated Per Interface by the DHCPv6 Local Server

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show ipv6 dhcpv6-local prefix-lifetime

Syntax show ipv6 dhcpv6-local prefix-lifetime [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the DHCPv6 default prefix lifetime.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring DHCPv6 Local Server Prefix Lifetime

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show ipv6 dhcpv6-local statistics

Syntax show ipv6 dhcpv6-local statistics [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays statistics for the DHCPv6 local server.

Options
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring DHCPv6 Local Server Statistics

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show ipv6 forwarding-table slot

Syntax show ipv6 forwarding-table slot *slotNumber*

Release Information Command introduced in JunosE Release 7.1.0.

Description Displays information about routing table memory, load errors, and status for the IPv6 forwarding table of a specific line module.

Options
- *slotNumber*—Number of the slot containing the line module

Mode Privileged Exec, User Exec

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show ipv6 interface

Syntax

show ipv6 interface [vrf *vrfName*] [brief | detail]
[*interfaceType interfaceSpecifier*][delta] [*filter*]

To display summary information:

show ipv6 interface summary [vrf *vrfName*] [*filter*]

Release Information

Command introduced before JunosE Release 7.1.0.
vrf keyword and *vrfName* variable added in JunosE Release 7.2.0.

Description

Displays current state of all IPv6 interfaces or the IPv6 interfaces that you specify. The default is all interface types and all interfaces.

Options

- *vrfName*—Name of the VRF
- brief—Displays a brief summary of IPv6 status and configuration information
- detail—Shows a detailed display of IP status and configuration information
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4
- summary—Shows a detailed summary of IP status and configuration

Mode

Privileged Exec, User Exec

Related Documentation

- Monitoring the Policy Configuration of IPv6 Interfaces
- Monitoring IPv6 Statistics

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show ipv6 local ndra-pool

Syntax show ipv6 local ndra-pool [*poolName* | statistics [delta]] [*filter*]

Release Information Command introduced in JunosE Release 13.0.0.

Description Displays information for all IPv6 local address pools configured on a virtual router, a particular IPv6 local address pool, or the IPv6 local address pool statistics for Neighbor Discovery router advertisements.

Options

- *poolName*—Name of the IPv6 local address pool configured on the virtual router that enables you to view prefix range, total number of prefixes that can be allocated, and the number of prefixes in use
- statistics—Displays IPv6 local address pool statistics details
- delta—Displays statistics that have changed since the last baseline was set
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation

- Monitoring IPv6 Local Pools for Neighbor Discovery Router Advertisements by Pool Name
- Monitoring IPv6 Local Pools for Neighbor Discovery Router Advertisements for all Configured Pools
- Monitoring IPv6 Local Pool Statistics for Neighbor Discovery Router Advertisements Allocation of Prefixes

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show ipv6 local pool

Syntax show ipv6 local pool [*poolName* | statistics [delta]] [*filter*]

Release Information Command introduced in JunosE Release 10.1.0.

Description Displays information for all IPv6 local address pools configured on a virtual router, a particular IPv6 local address pool, or the IPv6 local address pool statistics for DHCPv6 prefix delegation.

Options

- *poolName*—Name of the IPv6 local address pool configured on the virtual router for which you want to view statistics, such as the number of clients to which prefixes have been allocated from this pool, starting and ending prefixes of the address range, and other prefix configuration parameters .
- statistics—Displays the IPv6 local address pool statistics details.
- delta—Displays statistics that have changed since the last baseline was set.
- *filter*—See "Filtering show Commands" on page 4.

Mode Privileged Exec, User Exec

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show ipv6 mld

Syntax show ipv6 mld [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays MLD information for a virtual router.

Options
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ipv6 mld groups

Syntax show ipv6 mld groups [count] [*groupAddress*]
[*interfaceType interfaceSpecifier*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about statically joined and directly connected groups learned through MLD.

Options

- count—Displays the total number of groups learned
- *groupAddress*—IPv6 address of the group
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ipv6 mld membership

Syntax show ipv6 mld membership [*groupAddress*] [tracked] [*interfaceType interfaceSpecifier*] [*filter*]

Release Information Command introduced in JunosE Release 8.2.0.

Description Displays MLD membership information for multicast groups and (S, G) channels.

Options

- *groupAddress*—Address of the group whose membership information you want to display
- tracked—Displays interface information only for interfaces where explicit host tracking is enabled
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ipv6 mld interface

Syntax show ipv6 mld interface [brief | count] [delta]
[*interfaceType interfaceSpecifier*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays MLD information for interfaces on which you enabled MLD.

Options

- brief—Displays a summary of the information
- count—Displays the total number of interfaces on which you enabled MLD
- delta—Displays baselined statistics
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation

- Monitoring MLD Statistics

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show ipv6 mld mapped-oif

Syntax show ipv6 mld mapped-oif [*interfaceType interfaceSpecifier*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the current mappings to all mapped outgoing interfaces or to the specified outgoing interface.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

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show ipv6 mld oif-map

Syntax show ipv6 mld oif-map [*mapName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays all outgoing interface (OIF) maps or the OIF map for the specified interface.

Options
- *mapName*—Outgoing interface multicast map name
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ipv6 mld oif-mapping

Syntax show ipv6 mld oif-mapping *mapName* [*groupAddress* [*sourceAddress*]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the mapped OIF to be assigned to a given map name, group address, and source address.

Options
- *mapName*—Outgoing interface multicast map name
- *groupAddress*—IPv6 address of a multicast group
- *sourceAddress*—IPv6 address of a multicast source
- *filter*—See Filtering show Commands on page 4

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show ipv6 mld-proxy

Syntax show ipv6 mld-proxy [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays MLD proxy parameters on a virtual router.

Options
- *filter*—See Filtering show Commands on page 4

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show ipv6 mld-proxy groups

Syntax show ipv6 mld-proxy groups [count] [*groupAddress*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about multicast groups that MLD proxy interfaces reported.

Options
- count—Displays the number of groups that MLD proxy reported
- *groupAddress*—IPv6 address of a group for which you want to display information
- *filter*—See Filtering show Commands on page 4

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show ipv6 mld-proxy interface

Syntax show ipv6 mld-proxy interface [brief] [delta] [*interfaceType interfaceSpecifier*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the interface on which you configured MLD proxy.

Options

- brief—Displays summarized information
- delta—Displays baselined statistics
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

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show ipv6 mld ssm-mapping

Syntax show ipv6 mld ssm-mapping [*groupAddress*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the SSM mapping state and the source list mapping associated with a multicast group address, based on the static SSM mapping configuration.

Options
- *groupAddress*—IP address of the group
- *filter*—See Filtering show Commands on page 4

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show ipv6 mroute

Syntax show ipv6 mroute [*groupIpAddress* [*sourceIpAddress*]]
[summary | count | oif-detail | statistics] [active [*bandwidth*]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
active keyword added in JunosE Release 8.1.0.
oif-detail keyword added in JunosE Release 12.0.0.

Description Displays information about all or specified multicast routes.

Options
- *groupIpAddress*—IPv6 address of a multicast group
- *sourceIpAddress*—IPv6 address of a multicast source
- summary—Displays brief information about the multicast routes
- count—Displays the number of groups and sources
- oif-detail—Displays details of the join interfaces corresponding to the mapped interface when OIF-mapping is configured
- statistics—Displays statistics for packets received through multicast routes that the router has added to the multicast routing table and established on the appropriate line modules
- active—Displays active mroutes
- *bandwidth*—Admission bandwidth for active multicast routes that is greater than the specified bandwidth threshold; default is 4000 bps
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring IPv6 Multicast Forwarding Entries
- Monitoring Active IPv6 Multicast Routes
- Monitoring IPv6 Multicast Entries in a Source or Group
- Monitoring Join Interface Details When IPv6 OIF Mapping Is Configured
- Monitoring IPv6 Multicast Statistics
- Monitoring Summary Information of IPv6 Multicast Routes

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show ipv6 multicast protocols

Syntax show ipv6 multicast protocols [brief] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the multicast protocols enabled on the router.

Options
- brief—Displays a summary rather than detailed information
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring IPv6 Multicast Protocols Enabled on the Router
- Monitoring Summary Information of IPv6 Multicast Protocols Enabled on the Router

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show ipv6 multicast routing

Syntax show ipv6 multicast routing [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the status of multicast routing on the router.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring IPv6 Multicast Status on a Virtual Router

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show ipv6 neighbors

Syntax show ipv6 neighbors [vrf *vrfName*] [*ipv6Address*] [*interfaceType interfaceSpecifier*] [static | dynamic | summary] [*filter*]

show ipv6 neighbors summary [vrf *vrfName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
vrf keyword and *vrfName* variable added in JunosE Release 7.2.0.

Description Displays IPv6 neighbor discovery cache information for both static and dynamic entries.

Options

- *vrfName*—Name of the VRF
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- static—Displays information for only static entries
- dynamic—Displays information for only dynamic entries
- summary—Displays summary information
- *ipv6Address*—Specific IPv6 address
- *filter*—See Filtering show Commands on page 4

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show ipv6 ospf

Syntax show ipv6 ospf [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays general information about OSPFv3 routing processes.

Options
- *filter*—See Filtering show Commands on page 4

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show ipv6 ospf border-routers

Syntax show ipv6 ospf border-routers [vrf *vrfName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays IPv6 routing table entries for area border and AS boundary routers.

Options
- *vrfName*—Name of the VRF
- *filter*—See Filtering show Commands on page 4

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show ipv6 ospf database

Syntax show ipv6 ospf database [vrf *vrfName*] [database-summary | { router | intra-area-prefix | link | network | inter-area-net | inter-area-router | external | grace } [*advRouterId*]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
database-summary keyword added in JunosE Release 7.3.0.
grace keyword added in JunosE Release 8.1.0.

Description Displays an area-scoped link-state database for each area of which the router is a part, an interface-scoped link-state database for each interface, the external link-state database, the number of LSAs available in each category, and the number of LSAs that have reached the maximum age in each category. Specifying an LSA type, with or without identifying an advertising router, provides more detailed information for those LSAs.

Options

- *vrfName*—Name of the VRF
- database-summary—Displays summary of the database
- router—Displays V3 router link states
- intra-area-prefix—Displays V3 intra-area-prefix link states
- link—Displays V3 link local link states
- network—Displays V3 network link states
- inter-area-net—Displays V3 inter-area network link states
- inter-area-router—Displays V3 inter-area AS link states
- external—Displays V3 external link states
- grace—Displays V3 grace link states
- *advRouterId*—Advertising router ID
- *filter*—See Filtering show Commands on page 4

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show ipv6 ospf internal-statistics

Syntax show ipv6 ospf internal-statistics [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays internal OSPFv3 statistics.

Options
- delta—Displays baselined information
- *filter*—See Filtering show Commands on page 4

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show ipv6 ospf interface

Syntax show ipv6 ospf [*areaId* | *areaIdInt*] interface
[*interfaceType interfaceSpecifier*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays a list of OSPFv3 interfaces.

Options

- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value (0–4294967295)
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

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show ipv6 ospf neighbors

Syntax show ipv6 ospf [*areaId* | *areaIdInt*] neighbors [*neighborAddress*] [*interfaceType interfaceSpecifier*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays a list of OSPFv3 neighbors.

Options

- *areaId*—OSPF area ID in IP address format
- *areaIdInt*—OSPF area ID as a decimal value (0–4294967295)
- *neighborAddress*—Router ID of a specified neighbor
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

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show ipv6 ospf summary-prefix

Syntax show ipv6 ospf summary-prefix [*vrfName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays summary prefixes configured to summarize externals.

Options
- *vrfName*—Name of the VRF
- *filter*—See Filtering show Commands on page 4

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show ipv6 ospf traffic

Syntax show ipv6 ospf traffic [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays OSPFv3 packet statistics.

Options
- delta—Displays baselined information
- *filter*—See Filtering show Commands on page 4

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show ipv6 pim

Syntax show ipv6 pim

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays general PIM router-level information.

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show ipv6 pim bsr

Syntax show ipv6 pim bsr [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays BSR information and the group prefixes for which the local router is a C-RP in a PIM sparse mode environment.

Options
- *filter*—See Filtering show Commands on page 4

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show ipv6 pim interface

Syntax show ipv6 pim interface
{ summary | [*interfaceType interfaceSpecifier*] [detail | count] [*filter*] }

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about each PIM IPv6 interface.

Options

- summary—Displays the number of configured, enabled, and disabled PIM sparse mode interfaces
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- detail—Displays detailed information for all PIM interfaces or for a specified PIM interface
- count—Displays the number of incoming and outgoing PIM control packets
- *filter*—See Filtering show Commands on page 4

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show ipv6 pim neighbor

Syntax show ipv6 pim neighbor [*interfaceType interfaceSpecifier*] [detail] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about each PIM IPv6 neighbor that the router has discovered.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- detail—Displays detailed information for all PIM neighbors or for a specified PIM neighbor
- *filter*—See Filtering show Commands on page 4

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show ipv6 pim remote-neighbor

Syntax show ipv6 pim remote-neighbor [*ipv6Address*] [count] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about all PIM IPv6 remote neighbors or the specified IPv6 remote neighbor.

Options
- *ipv6Address*—IPv6 address of a remote neighbor
- count—Displays the number of remote neighbors
- *filter*—See Filtering show Commands on page 4

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show ipv6 pim rp

Syntax show ipv6 pim rp { *groupAddress* | mapping } [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about PIM IPv6 group-to-RP mappings.

Options
- *groupAddress*—IPv6 address of a group for which you want to view group-to-RP mappings
- mapping—Displays all group-to-RP mappings that the router has recorded
- *filter*—See Filtering show Commands on page 4

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show ipv6 pim rp-hash

Syntax show ipv6 pim rp-hash *groupAddress* [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays which RP an IPv6 multicast group is using.

Options
- *groupAddress*—IPv6 address of multicast group for which you want to view the RP
- *filter*—See Filtering show Commands on page 4

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show ipv6 pim sparse-mode sg-state

Syntax show ipv6 pim sparse-mode sg-state
[group *groupAddress* [source *sourceAddress*] | rp *rpAddress*] [count] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information for each SG entry that PIM sparse mode knows about.

Options
- *groupAddress*—IPv6 address of a multicast group
- *sourceAddress*—IPv6 address of a multicast source
- *rpAddress*—IPv6 address of an RP router
- count—Displays the number of SG entries
- *filter*—See Filtering show Commands on page 4

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show ipv6 pim sparse-mode unicast-route

Syntax show ipv6 pim sparse-mode unicast-route [*routeAddress routeMask* | *ipv6Prefix*] [count] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the IPv6 unicast routes that PIM sparse mode is using.

Options

- *routeAddress*—IPv6 address associated with a unicast route
- *routeMask*—Network mask associated with a unicast route
- *ipv6Prefix*—Prefix in the format *IPv6BaseAddress / length*; for example, 1::1/32
- count—Shows the number of unicast routes that PIM sparse mode is using
- *filter*—See Filtering show Commands on page 4

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show ipv6 pim spt-threshold

Syntax show ipv6 pim spt-threshold [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the threshold for switching to the shortest-path-tree at a PIM designated router.

Options
- *filter*—See Filtering show Commands on page 4

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show ipv6 prefix-list

Syntax show ipv6 prefix-list
[*listName* [seq *seqNum* | *ipv6Prefix* [longer | first-match]]] [*filter*]

To display summary or detailed information:

show ipv6 prefix-list { summary | detail } [*listName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about IPv6 prefix lists.

Options

- *listName*—Name of IPv6 prefix list
- *seqNum*—Sequence number of prefix list entry
- *ipv6Prefix*—Prefix of prefix list entry: in the format *IPv6baseaddress* / *length*; for example, 1::1/32
- longer—Displays all entries for a prefix that are equal to or more specific than the specified prefix
- first-match—Displays only an entry that matches the specified prefix
- *filter*—See Filtering show Commands on page 4
- summary—Displays summary information for all prefix lists or for a specified prefix list
- detail—Displays detailed information for all prefix lists or for a specified prefix list

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show ipv6 profile

Syntax show ipv6 profile *profileName* [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the IPv6 profile configuration.

Options
- *profileName*—Name of the profile you want to display
- *filter*—See Filtering show Commands on page 4

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show ipv6 protocols

Syntax show ipv6 protocols [vrf *vrfName*] [summary] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
vrf keyword and *vrfName* variable added in JunosE Release 7.2.0.

Description Displays detailed information about IPv6 protocols currently configured on the router.

Options
- *vrfName*—Name of the VRF
- summary—Displays only a list of currently configured protocols
- *filter*—See Filtering show Commands on page 4

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show ipv6 redistribute

Syntax show ipv6 redistribute [vrf *vrfName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
vrf keyword and *vrfName* variable added in JunosE Release 7.2.0.

Description Displays configured IPv6 route redistribution policy.

Options
- *vrfName*—Name of the VRF
- *filter*—See Filtering show Commands on page 4

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show ipv6 route

Syntax show ipv6 route [vrf *vrfName*] [*ipv6Address* [detail] | *ipv6Prefix* [detail]] [all] [*protocol*] [*filter*]

To display summary information:

show ipv6 route summary [vrf *vrfName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
vrf keyword and *vrfName* variable added in JunosE Release 7.2.0.

Description Displays current state of the IPv6 routing table.

Options

- *vrfName*—Name of the VRF
- *ipv6Address*—IPv6 address
- *ipv6Prefix*—Prefix of prefix list entry; in the format *IPv6baseaddress / length*; for example, 1::1/32
- detail—Displays detailed information about the specific route
- all—Displays routes from all sources to a prefix
- *protocol*—One of the following protocols for which you want to display the best routes in the routing table; no routes are displayed if routes for the specified protocol are not present in the routing table
  - access—Displays the best access-server routes (BGP) in the routing table
  - access-internal—Displays the best access-internal routes in the routing table
  - bgp—Displays the best BGP routes in the routing table
  - bgp-tunnel—Displays the best BGP tunnel routes in the routing table
  - dvmrp—Displays the best DVMRP routes in the routing table
  - isis—Displays the best IS-IS routes in the routing table
  - ldp—Displays the best LDP tunnel routes in the routing table
  - local—Displays the best locally connected routes in the routing table
  - mbgp—Displays the best MBGP routes in the routing table
  - ospf—Displays the best OSPF routes owned by in the routing table
  - other—Displays the best internal control routes in the routing table
  - rip—Displays the best RIP routes in the routing table
  - rsvp—Displays the best RSVP tunnel routes in the routing table

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- static—Displays the best static routes added by network management to the routing table
- static-rpf—Displays the best static RPF routes added by network management to the routing table

- *filter*—See Filtering show Commands on page 4
- summary—Displays summary counters for all routes in the IPv6 routing table

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show ipv6 routers

Syntax show ipv6 routers [vrf *vrfName*] [*interfaceType interfaceSpecifier*] [*ipv6Address*] [conflicts] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
vrf keyword and *vrfName* variable added in JunosE Release 7.2.0.

Description Displays IPv6 router advertisement information received by the E Series router.

Options

- *vrfName*—Name of the VRF
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *ipv6Address*—IPv6 address
- conflicts—Displays router advertisements that differ from the currently configured advertisements
- *filter*—See Filtering show Commands on page 4

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show ipv6 rpf-route

Syntax show ipv6 rpf-route [vrf *vrfName*] [*ipv6Address* [detail] | *ipv6Prefix* [detail]] [all] [*protocol*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
vrf keyword and *vrfName* variable added in JunosE Release 7.2.0.

Description Displays IPv6 routes that the router can use to verify source addresses in multicast packets.

Options

- *vrfName*—Name of the VRF
- *ipv6Address*—Specific IPv6 address to show
- *ipv6Mask*—IPv6 mask of the specific address to show
- detail—displays detailed information about the specified route
- all—Displays routes from all sources to a prefix
- *protocol*—One of the following protocols for which you want to display the best routes in the routing table; no routes are displayed if routes for the specified protocol are not present in the routing table
  - access—Displays the best access-server routes (BGP) in the routing table
  - access-internal—Displays the best access-internal routes in the routing table
  - bgp—Displays the best BGP routes in the routing table
  - bgp-tunnel—Displays the best BGP tunnel routes in the routing table
  - dvmrp—Displays the best DVMRP routes in the routing table
  - isis—Displays the best IS-IS routes in the routing table
  - ldp—Displays the best LDP tunnel routes in the routing table
  - local—Displays the best locally connected routes in the routing table
  - mbgp—Displays the best MBGP routes in the routing table
  - ospf—Displays the best OSPF routes owned by in the routing table
  - other—Displays the best internal control routes in the routing table
  - rip—Displays the best RIP routes in the routing table
  - rsvp—Displays the best RSVP tunnel routes in the routing table
  - static—Displays the best static routes added by network management to the routing table
  - static-rpf—Displays the best static RPF routes added by network management to the routing table
- *filter*—See Filtering show Commands on page 4

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Related Documentation
- Monitoring Available IPv6 Routes for Reverse-Path Forwarding

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show ipv6 static

Syntax show ipv6 static [vrf *vrfName*] [*ipv6Prefix* [all]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
vrf keyword and *vrfName* variable added in JunosE Release 7.2.0.

Description Displays general status information for static routes added by network management to the routing table.

Options
- *vrfName*—Name of the VRF
- *ipv6Prefix*—Prefix in the format *IPv6baseaddress* **/** *length*; for example, 1::1/32
- all—Displays all routes starting at the specified prefix
- *filter*—See Filtering show Commands on page 4

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show ipv6 traffic

Syntax show ipv6 traffic [vrf *vrfName*] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
vrf keyword and *vrfName* variable added in JunosE Release 7.2.0.

Description Displays statistics about IPv6 traffic.

Options
- *vrfName*—Name of the VRF
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

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show ipv6 tunnel-route

Syntax show ipv6 tunnel-route [vrf *vrfName*] [*ipv6Address* [detail] | *ipv6Prefix* [detail]] [all] [*protocol*] [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.
vrf keyword and *vrfName* variable added in JunosE Release 7.2.0.

Description Displays current state of the IPv6 tunnel routing table.

Options

- *vrfName*—Name of the VRF
- *ipv6Address*—IPv6 address
- *ipv6Prefix*—Prefix of prefix list entry; in the format *IPv6baseaddress* **/** *length*; for example, 1::1/32
- detail—Displays detailed information about the specific route
- all—Displays all routes in the IPv6 tunnel routing table inserted from all protocols, not just the best routes
- *protocol*—The following protocols for which you want to display the best route or all routes in the tunnel routing table; no routes are displayed if routes for the specified protocol are not present in the tunnel routing table

  NOTE: **Other protocol options are available in the CLI, but they are not applicable to the tunnel routing table.**

  - bgp-tunnel—Displays the BGP tunnel routes in the tunnel routing table
- *filter*—See Filtering show Commands on page 4

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show ipv6 udp statistics

Syntax show ipv6 udp statistics [vrf *vrfName*] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
vrf keyword and *vrfName* variable added in JunosE Release 7.2.0.

Description Displays IPv6 UDP statistics.

Options
- *vrfName*—Name of the VRF
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

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show isis database

Syntax show isis database [level-1 | level-2 | l1 | l2 | *lspid* | *hostname* | detail | verbose]* [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
hostname variable added in JunosE Release 7.3.0.

Description Displays the IS-IS link-state database.

Options

- level-1—Displays the IS-IS link-state database for level 1
- level-2—Displays the IS-IS link-state database for level 2
- l1—Displays the IS-IS link-state database for level 1
- l2—Displays the IS-IS link-state database for level 2
- *lspid*—Link-state PDU identifier in the form xxxx.xxxx.xxxx.yy.zz; when specified, displays the contents of a single link-state PDU by its ID number
- *hostname*—Displays the IS-IS link-state database for the specified hostname
- detail—Additionally displays contents of each link-state PDU; if not specified, a summary display is provided
- verbose—Additionally displays MPLS traffic engineering information
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show isis mpls adjacency-log

Syntax show isis mpls [traffic-eng] adjacency-log [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays a log of the last 20 IS-IS adjacency changes.

Options
- traffic-eng—Specifies optional keyword for compatibility with non–E Series implementations
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show isis mpls advertisements

Syntax show isis mpls [traffic-eng] advertisements [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the last record flooded from MPLS.

Options
- traffic-eng—Specifies optional keyword for compatibility with non–E Series implementations
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show isis mpls tunnel

Syntax show isis mpls [traffic-eng] tunnel [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about tunnels used in the calculation of IS-IS next hops.

Options
- traffic-eng—Specifies optional keyword for compatibility with non–E Series implementations
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show isis nsf

Syntax show isis nsf

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the configured and operational settings on the router for IS-IS graceful restart. Graceful restart is also known as nonstop forwarding (NSF).

Mode Privileged Exec, User Exec

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show isis spf-log

Syntax show isis spf-log [detail] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays how often and why the router has run a full SPF calculation.

Options
- detail—Displays the time it takes to perform the route table update and the time it takes to leak the routes across ISIS levels
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show isis summary-addresses

Syntax show isis summary-addresses [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays aggregate address information for IS-IS.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show isis topology

Syntax show isis topology [[level-1 | level-2 | l1 | l2]* [*nsap*]
[level-1 | level-2 | l1 | l2]*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the paths to all intermediate systems.

Options

- level-1—Displays paths to all level 1 routers in the area
- level-2—Displays paths to all level 2 routers in the domain
- l1—Displays paths to all level 1 routers in the area
- l2—Displays paths to all level 2 routers in the domain
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line
- *nsap*—NSAP address
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show issu

Syntax show issu [brief | detail] [*filter*]

Release Information Command introduced in JunosE Release 9.0.0.

Description Displays the current status of unified ISSU operation.

Options

- brief—Displays hardware and software criteria required for unified ISSU to begin and whether criteria are met
- detail—Displays detailed information about unified ISSU status and warnings in addition to criteria required for unified ISSU and whether criteria are met
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show l2c

Syntax show l2c [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
filter variable added in JunosE Release 13.2.0.

Description Displays information about the ANCP configuration on the router.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show l2c discovery-table

Syntax show l2c discovery-table [neighbor *neighborName*] [end-user-id *userIdString*] [brief] [*filter*]

Release Information Command introduced in JunosE Release 7.2.0.
filter variable added in JunosE Release 13.2.0.

Description Displays information about ANCP discovery table entries.

Options
- *neighborName*—Name of the neighbor for which you want to view ANCP discovery table information
- *userIdString*—ID of the neighbor for which you want to view ANCP discovery table information
- brief—Displays limited information
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show l2c label

Syntax show l2C label [interface *interfaceType interfaceSpecifier*]
[neighbor-input | neighbor-output] [brief] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
filter variable added in JunosE Release 13.2.0.

Description Displays information about known ANCP labels on the router.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- neighbor-input—Displays labels for input ports
- neighbor-output—Displays labels for output ports
- brief—Displays limited information
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show l2c neighbor

Syntax

To display information about all ANCP neighbors:

show l2C neighbor [name *neighborName* | id *neighborIdMac*] [brief] [*filter*]

To display the number of active neighbors:

show l2C neighbor [summary] [*filter*]

Release Information

Command introduced before JunosE Release 7.1.0.
filter variable added in JunosE Release 13.2.0.

Description

Displays information about known ANCP neighbors on the router and their configurations.

Options

- *neighborName*—Name of the neighbor for which you want to view ANCP information
- *neighborIdMac*—ID of the neighbor for which you want to view ANCP information
- brief—Displays limited information
- summary—Displays the number of active neighbors
- *filter*—See Filtering show Commands on page 4

Mode

Privileged Exec

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show l2c statistics

Syntax show l2c statistics [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
filter variable added in JunosE Release 13.2.0.

Description Displays information about the ANCP statistics.

Options
- delta—Limits the display to events that occurred after the baseline
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show l2tp

Syntax show l2tp [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the L2TP configuration on the router.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show l2tp destination

Syntax show l2tp destination [detail] [*destinationName* |
[virtual-router *vrName*] ip *ipAddress*] [*filter*]

show l2tp destination summary [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about selected L2TP destinations.

Options

- detail—Provides complete information about the specified destinations, including destination profiles
- *destinationName*—Name the router assigns to the peer at the other end of the tunnel
- *vrName*—Name of the virtual router on which the destination exists
- *ipAddress*—IP address of the peer at the other end of the tunnel
- summary—Displays a summary of destination profile configuration
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show l2tp destination lockout

Syntax show l2tp destination lockout [*filter*]

Release Information Command introduced in JunosE Release 7.2.0.

Description Displays information about the L2TP destinations that are currently unavailable because they are in the lockout state.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show l2tp destination profile

Syntax show l2tp destination profile [*profileName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays destination profile configuration.

Options
- *profileName*—Name of a profile
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show l2tp dial-out

Syntax show l2tp dial-out [[detail] [state *operState*] | summary] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the chassis-wide configuration, operational state, and statistics for L2TP dial-out.

Options

- detail—Displays configuration, states, and statistics
- *operState*—One of the following operational states:
  - inService
  - initIncomplete
  - restricted
- summary—Displays aggregate counts for virtual routers, targets, and sessions in each of the possible operational and administrative states
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show l2tp dial-out session

Syntax show l2tp dial-out session [*triggerIpAddress* | allVirtualRouters] [detail] [state *operState*] [*filter*]

To display summary information:

show l2tp dial-out session summary [allVirtualRouters] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the status of L2TP dial-out sessions.

Options

- *triggerIpAddress*—Trigger IP address for the session that you want to display
- allVirtualRouters—Displays dial-out information for all virtual routers
- detail—Displays configuration, state, and statistics
- *operState*—One of the following operational states:
  - authenticating
  - connecting
  - dormant
  - failed
  - inService
  - inhibited
  - pending
  - postInhibited
- *filter*—See Filtering show Commands on page 4
- summary—Displays aggregate counts for dial-out sessions in each of the possible operational and administrative states

Mode Privileged Exec

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show l2tp dial-out target

Syntax show l2tp dial-out target [*targetIpAddress targetIpAddressMask* | allVirtualRouters] [detail] [state *operState*] [*filter*]

To display summary information:

show l2tp dial-out target summary [allVirtualRouters] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays configured dial-out targets within the current virtual router context.

Options

- *targetIpAddress*—Trigger IP address for the target that you want to display
- *targetIpAddressMask*—Mask for the trigger IP address
- allVirtualRouters—Displays dial-out information for all virtual routers
- detail—Displays configuration, state, and statistics
- *operState*—One of the following operational states:
  - down
  - inService
  - inhibited
- *filter*—See Filtering show Commands on page 4
- summary—Displays aggregate counts for targets in each of the possible operational and administrative states

Mode Privileged Exec

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show l2tp dial-out virtual-router

Syntax show l2tp dial-out virtual-router [allVirtualRouters] [detail] [state *operState*] [*filter*]

To display summary information:

show l2tp dial-out virtual-router summary [allVirtualRouters] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays dial-out state machine operational status and statistics within the current virtual router context.

Options

- allVirtualRouters—Displays dial-out information across all virtual routers
- detail—Displays configuration, state, and statistics
- *operState*—One of the following operational states:
  - down
  - inService
  - initFailed
  - initPending
- *filter*—See Filtering show Commands on page 4
- summary—Displays aggregate counts for dial-out state machines in each of the possible operational and administrative states

Mode Privileged Exec

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show l2tp received-disconnect-cause-summary

Syntax show l2tp received-disconnect-cause-summary [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays aggregate summary statistics for all information received by an LAC from an LNS about the cause of an L2TP session disconnection. The LAC receives this information from the LNS by means of a PPP Disconnect Cause Code attribute value pair (AVP) included in an L2TP Call-Disconnect-Notify (CDN) message.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show l2tp session

Syntax show l2tp session [detail] [state { *adminState* | *ifOperStatus* }]
[*l2tpName* | [virtual-router *vrName*] ip *ipAddress* [*l2tpNameNoDest*]] [*filter*]

To display summary information:

show l2tp session summary [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays detailed information about selected L2TP sessions or summary information for all L2TP sessions.

Options

- detail—Provides complete information about the specified sessions
- state—Restricts display to sessions in a specific state
- *adminState*—Effective administrative state
- *ifOperStatus*—Operational state
- *l2tpName*—Session name
- *vrName*—Name of the virtual router on which the session exists
- *ipAddress*—IP address
- *l2tpNameNoDest*—Name of the session
- *filter*—See Filtering show Commands on page 4
- summary—Displays the configured and operational status of all L2TP sessions

Mode Privileged Exec

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show l2tp switch-profile

Syntax show l2tp switch-profile [*profileName*] [*filter*]

Release Information Command introduced in JunosE Release 7.2.0.

Description Displays the names of all L2TP tunnel switch profiles currently configured on the router, or displays detailed information about a particular L2TP tunnel switch profile.

Options

- *profileName*—Name of the tunnel switch profile; a string of up to 64 alphanumeric characters
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show l2tp tunnel

Syntax show l2tp tunnel [detail] [state { *adminState* | *ifOperStatus* | failover-resync *failoverResyncMode* }] [*l2tpName* | [virtual-router *vrName*] ip *ipAddress* [*l2tpNameNoDest*]] [*filter*]

To display summary information:

show l2tp tunnel summary [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
failover-resync keyword and *failoverResyncMode* variable added in JunosE Release 9.0.0.

Description Displays detailed information about the configured and operational status of selected L2TP tunnels or summary information for all L2TP tunnels.

Options

- detail—Provides complete information about the specified sessions, including the L2TP host profile name
- *adminState*—Displays information about tunnels only with the specified effective administrative state
  - enabled—Effective administrative state is disabled
  - disabled—Effective administrative state is enabled
  - drain—Effective administrative state is drain
- *ifOperStatus*—Displays information about tunnels only with the specified operational state
  - up—Operational state is up
  - down—Operational state is down
  - lower-down— Operational state is lower down
  - not-present—Operational state is not-present
- *failoverResyncMode*—Displays information about tunnels that use the specified failover resynchronization mode:
  - disable—Peer failover resynchronization is disabled
  - failover-protocol—Uses the L2TP failover protocol method
  - failover-protocol-fallback-to-silent-failover—Uses the L2TP failover protocol method; however, if the peer does not support this method, the silent failover method is used
  - not-configured—Uses the global failover method because peer failover resynchronization is not configured for L2TP host profiles and AAA domain map tunnels
  - silent-failover—Uses the L2TP silent failover method
- *l2tpName*—Tunnel name

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- *vrName*—Name of the virtual router on which the tunnel exists
- *ipAddress*—IP address
- *l2tpNameNoDest*—Tunnel name
- *filter*—See Filtering show Commands on page 4
- summary—Displays the configured and operational status of all L2TP tunnels

Mode Privileged Exec

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show l2vpn connections

Syntax show l2vpn connections
[details | instance *l2VpnName* | remote-site *siteId* | state down | state up]* [*filter*]

Release Information Command introduced in JunosE Release 8.1.0.

Description Displays information about VPWS connections.

Options
- details—Displays detailed information about all VPWS connections
- *l2VpnName*—Name of the VPWS instance
- *siteId*—Numerical identifier for the site, in the range 1–65535
- state down—Displays information about nonoperational VPWS connections
- state up—Displays information about operational VPWS connections
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line; parameters can be entered in any order
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring VPWS Connections

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show l2vpn instance

Syntax show l2vpn instance { all | *l2VpnName* } [detail] [*filter*]

Release Information Command introduced in JunosE Release 8.1.0.

Description Displays all VPWS instances on the VR or information about the specified VPWS instance.

Options
- all—Displays information for all VPWS instances
- *l2VpnName*—Name of the VPWS instance
- detail—Displays detailed information
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring VPWS Connections

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show l2vpn interface

Syntax show l2vpn interface [instance *l2VpnName* | *interfaceType interfaceSpecifier*] [detail] [*filter*]

Release Information Command introduced in JunosE Release 8.1.0.

Description Displays information about layer 2 interfaces configured to be members of VPWS L2VPNs in the current VR: all layer 2 interfaces in the specified VPWS instance, all layer 2 interfaces in all VPWS instances, or a specific layer 2 interface.

Options

- *l2VpnName*—Name of the VPWS instance
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- detail—Displays detailed information
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation

- Monitoring VPWS Connections

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show last-reset

Syntax show last-reset [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information describing the reason for the router's last reload, whether specified by the user or resulting from a router problem.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ldp

Syntax show [mpls] ldp [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.

Description Displays the status of LDP.

Options
- mpls—Specifies optional keyword for compatibility with non–E Series implementations
- *filter*—See Filtering show Commands on page 4

Mode User Exec

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show ldp binding

Syntax For MPLS binding information:

show [mpls] ldp { [ip] binding | binding ip }
[*destAddr* [*maskLength* | *maskAddress*] [longer-prefixes]]
[interface *interfaceType interfaceSpecifier*]
[neighbor *ipAddress*] [generic | atm] [local | remote]
[label { atm *vpi vci* | explicit-null-label | implicit-null-label |
labelNumber [*labelRangeEnd*] }]
[brief] [*filter*]

For layer 2 over MPLS binding information:

show [mpls] ldp binding layer2-vc [vc-type *vcType* [vc-id *vcId*]]
[interface *interfaceType interfaceSpecifier*]
[neighbor *ipAddress*] [generic | atm] [local | remote]
[label { atm *vpi vci* | explicit-null-label | implicit-null-label |
labelNumber [*labelRangeEnd*] }]
[brief] [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.
explicit-null-label keyword and optional **mpls** keyword added in JunosE Release 7.2.0.

Description Displays label bindings from the MPLS label information base. This command displays the same output as the **show mpls binding** command.

Options

- mpls—Specifies optional keyword for compatibility with non–E Series implementations
- ip—Specifies optional keyword for compatibility with non–E Series implementations when placed before the **binding** keyword; when present (either before or after this keyword) displays label binding information only for IP prefixes
- *destAddr*—Destination address for which you want information displayed; if not specified, displays all destinations
- *maskLength*—Prefix length for the destination address
- *maskAddress*—Address mask to be applied to the destination address
- longer-prefixes—Displays information for prefixes that are equal to or more specific than the specified prefix
- interface—Displays labels associated with the specified interface
  - *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *ipAddress*—Displays labels associated with the specified neighbor
- generic—Displays only generic labels

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- atm—Displays only ATM VPI/VCI labels
- local—Displays only local labels
- remote—Displays only remote labels
- atm—Displays the specified ATM VPI/VCI labels
  - *vpi*—Specifies ATM VPI that partially designates a label
  - *vci* —Specifies ATM VCI that partially designates a label
- explicit-null-label—Displays binding information for the explicit null label
- implicit-null-label—Displays binding information for the implicit null label
- *labelNumber*—Label for which binding information is displayed; number in the range 16–1048575
- *labelRangeEnd*—Label designating the high end of a range of labels for which binding information is specified; number in the range 16–1048575
- brief—Displays limited information
- *filter*—See Filtering show Commands on page 4
- layer2-vc—Displays binding information for layer 2 over MPLS
- *vcType*—One of the following types of virtual circuit over MPLS for which binding information is displayed: aal5-vcc, ethernet, frame-relay, vlan
- *vcId*—Virtual circuit identifier, number in the range 1–4294967295

Mode Privileged Exec, User Exec

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show ldp graceful-restart

Syntax show [mpls] ldp graceful-restart [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.

Description Displays the status of LDP graceful restart.

Options
- mpls—Specifies optional keyword for compatibility with non–E Series implementations
- graceful-restart—Displays graceful restart information
- *filter*—See Filtering show Commands on page 4

Mode User Exec

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show ldp igp-sync

Syntax show [mpls] ldp igp-sync [interface *interfaceType interfaceSpecifier*]

Release Information Command introduced in JunosE Release 8.1.0.

Description Displays information about all interfaces that are synchronizing with LDP or about the specified interface that is synchronizing with LDP.

Options

- mpls—Specifies optional keyword for compatibility with non–E Series implementations
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5

Mode Privileged Exec, User Exec

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show ldp interface

Syntax show [mpls] ldp interface [*interfaceType interfaceSpecifier* | [brief]] [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.
Optional **mpls** keyword added in JunosE Release 7.2.0.

Description Displays information about all LDP interfaces or a specific LDP interface.

Options

- mpls—Specifies optional keyword for compatibility with non–E Series implementations
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- brief—Displays only brief or summary information about the interface or all interfaces
- *filter*—See Filtering show Commands on page 4

Mode User Exec

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show ldp neighbor

Syntax show [mpls] ldp neighbor [*ipAddress*] [brief | graceful-restart | statistics] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
graceful-restart keyword added in JunosE Release 7.1.0.
mpls keyword made optional in JunosE Release 7.2.0.
brief and **statistics** keywords added in JunosE Release 8.1.0.

Description Displays information about LDP neighbors.

Options
- mpls—Specifies optional keyword for compatibility with non–E Series implementations
- *ipAddress*—IP address of the remote peer
- brief—Displays only brief or summary information about the LDP neighbors
- graceful-restart—Displays graceful restart information for the neighbor
- statistics—Displays statistics about the sessions with each LDP neighbor
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ldp profile

Syntax show [mpls] ldp profile [*profileName*] [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.

Description Displays a specific LDP profile, or all LDP profiles.

Options
- mpls—Specifies optional keyword for compatibility with non–E Series implementations
- *profileName*—Name of the profile to be displayed
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ldp statistics

Syntax show [mpls] ldp statistics [*filter*]

Release Information Command introduced in JunosE Release 8.1.0.

Description Displays statistics information for LDP on the current virtual router.

Options
- mpls—Specifies optional keyword for compatibility with non–E Series implementations
- *filter*—See Filtering show Commands on page 4

Mode User Exec

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show ldp targeted session

Syntax show [mpls] ldp targeted session [all | receive | send]

Release Information Command introduced before JunosE Release 7.1.0.
mpls keyword made optional in JunosE Release 7.2.0.

Description Displays information about the LDP targeted sessions.

Options
- mpls—Specifies optional keyword for compatibility with non–E Series implementations
- all—Displays all targeted sessions
- receive—Displays only targeted receive sessions
- send—Displays only targeted send sessions

Mode Privileged Exec, User Exec

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show ldp vpls

Syntax show [mpls] ldp vpls [*vplsName* | neighbor *ipAddress*] [*filter*]

Release Information Command introduced in JunosE Release 8.2.0.

Description Displays MPLS configuration information for a VPLS instance that uses LDP as the signaling protocol. You can display information for a specific VPLS instance, for a specific neighbor address, or for all VPLS instances configured on the router.

Options

- mpls—Specifies optional keyword for compatibility with non–E Series implementations
- *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
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation

- Monitoring LDP-Related Settings for VPLS

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show license

Syntax show license [*licenseType*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
service-management keyword added in JunosE Release 7.2.0.

Description Displays all licenses or a specified license.

NOTE: The **show license l2tp-session** command remains in the CLI even though a separate L2TP license is no longer required to enable support for 32,000 L2TP sessions on supported systems.

Options
- *licenseType*—bfd, b-ras, ipsec-tunnels, ipv6, l2tp-session, nat, or service-management
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show license mobile-ip home-agent

Syntax show license mobile-ip home-agent

Release Information Command introduced in JunosE Release 9.0.0.

Description Displays the license key information for the Mobile IP home agent in the current virtual router.

Mode Privileged Exec, User Exec

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show line console 0

Syntax show line console 0 [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the speed configured for all future console sessions and the current console session.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show line vty

Syntax show line vty *lineNumber* [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the configuration of vty lines.

Options
- *lineNumber*—Number of the vty line; only line numbers that you have configured are available for display
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show log configuration

Syntax show log configuration [category *eventCategory*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the logging configuration settings for a selected category.

Options
- *eventCategory*—Log category to be displayed; refer to the CLI online help for available options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show log data

Syntax show log data [nv-file | category *eventCategory*]
[severity { *severityValue* | *severityNumber* }] [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the system log.

Options

- nv-file—Displays the nv-file log
- *eventCategory*—Log category to display; refer to the CLI online help for available options
- severity—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
- delta—Limits the display to events that occurred after the baseline
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show memory-management protection

Syntax show memory-management protection [detail] [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.

Description Displays information about memory management protection of the router. You can use this command only in support mode and it is not user configurable.

Options
- detail—Displays detailed information about memory management protection
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show mirror log

Syntax show mirror log [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays a log of failure messages for secure policy lists. 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.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring Failure Messages for Secure Policies
- Monitoring Information for Secure Policies
- Logging Packet Mirroring Information

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show mirror rules

Syntax show mirror rules [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the policy rules that are configured for packet mirroring.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring Packet Mirroring Triggers

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show mirror subscribers

Syntax show mirror subscribers [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about subscribers who have current packet mirroring sessions.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show mirror trap

Syntax show mirror trap

Release Information Command introduced in JunosE Release 7.2.0.

Description Displays the status (enabled or disabled) of SNMP secure traps.

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring SNMP Secure Packet Mirroring Traps

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show mpls

Syntax show mpls [detail] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
detail keyword added in JunosE Release 7.1.0.

Description Displays status and configuration information about MPLS on the router or on specific interfaces.

Options
- detail—Displays detailed information
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show mpls binding

Syntax For MPLS binding information:

show mpls { [ip] binding | binding ip }
[*destAddr* [*maskLength* | *maskAddress*] [longer-prefixes]]
[interface *interfaceType interfaceSpecifier*]
[neighbor *ipAddress*] [generic | atm] [local | remote]
[label { atm *vpi vci* | explicit-null-label | implicit-null-label |
labelNumber [*labelRangeEnd*] }]
[brief] [*filter*]

For layer 2 over MPLS binding information:

show mpls binding layer2-vc [vc-type *vcType* [vc-id *vcId*]]
[interface *interfaceType interfaceSpecifier*]
[neighbor *ipAddress*] [generic | atm] [local | remote]
[label { atm *vpi vci* | explicit-null-label | implicit-null-label |
labelNumber [*labelRangeEnd*] }]
[brief] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
explicit-null-label keyword added in JunosE Release 7.2.0.

Description Displays label bindings from the MPLS label information base. This command displays the same output as the show ldp binding command.

Options

- ip—Specifies optional keyword for compatibility with non–E Series implementations when placed before the **binding** keyword; when present (either before or after this keyword) displays label binding information only for IP prefixes
- *destAddr*—Destination address for which you want information displayed; if not specified, displays all destinations
- *maskLength*—Prefix length for the destination address
- *maskAddress*—Address mask to be applied to the destination address
- longer-prefixes—Displays information for prefixes that are equal to or more specific than the specified prefix
- interface—Displays labels associated with the specified interface
  - *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *ipAddress*—Displays labels associated with the specified neighbor
- generic—Displays only generic labels
- atm—Displays only ATM VPI/VCI labels

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- local—Displays only local labels
- remote—Displays only remote labels
- atm—Displays the specified ATM VPI/VCI labels
  - *vpi*—Specifies ATM VPI that partially designates a label
  - *vci* —Specifies ATM VCI that partially designates a label
- explicit-null-label—Displays binding information for the explicit null label
- implicit-null-label—Displays binding information for the implicit null label
- *labelNumber*—Label for which binding information is displayed; number in the range 16–1048575
- *labelRangeEnd*—Label designating the high end of a range of labels for which binding information is specified; number in the range 16–1048575
- brief—Displays limited information
- *filter*—See Filtering show Commands on page 4
- layer2-vc—Displays binding information for layer 2 over MPLS
- *vcType*—One of the following types of virtual circuit over MPLS for which binding information is displayed: aal5-vcc, ethernet, frame-relay, vlan
- *vcId*—Virtual circuit identifier, number in the range 1–4294967295

Mode Privileged Exec, User Exec

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show mpls cross-connects atm

Syntax show mpls cross-connects atm [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays all ATM passthrough connections between local subinterfaces.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Configuring Local ATM Cross-Connects with AAL5 Encapsulation
- Monitoring ATM Cross-Connects for Layer 2 Services over MPLS

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show mpls explicit-paths

Syntax show { mpls | ip } explicit-paths
[detail | { name *pathName* | identifier *pathNum* }] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays all explicit paths or a particular explicit path.

Options
- mpls—Specifies keyword for JunosE MPLS implementation
- ip—Specifies keyword for compatibility with non–E Series implementations
- detail—Specifies a verbose display [not currently supported]
- *pathName*—Name that identifies an explicit path
- *pathNum*—Number that identifies an explicit path
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show mpls fast-reroute database

Syntax show mpls [traffic-eng] fast-reroute database [*ipAddress*]
[name *tunnelName*] [interface *interfaceType interfaceSpecifier*]
[status { all | desired | establishing | established | active | unknown }]
[count-only] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the backup state of protected primary tunnels.

Options

- traffic-eng—Specifies optional keyword for compatibility with non–E Series implementations
- *ipAddress*—Address of the endpoint for the primary LSP; meaningful only for the tunnel ingress node
- *tunnelName*—Name of the primary LSP; meaningful only for the tunnel ingress node
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- status—Displays only entries with the specified status:
  - all—Displays all entries regardless of backup protection status
  - desired—Displays entries where backup protection is desired
  - establishing—Displays entries where backup protection is being established
  - established—Displays entries where backup protection is established
  - active—Displays entries where backup protection is active
  - unknown—Displays entries where status of backup protection is unknown
- count-only—Displays count of entries matching command specification
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show mpls forwarding

Syntax

show mpls forwarding
[interface *interfaceType interfaceSpecifier*] [bgp | ldp | rsvp-te]
[label { atm *vpi vci* | *labelNumber* [*labelRangeEnd*] }]
[brief | bindings | bindings delta | delta] [*filter*]

Release Information

Command introduced before JunosE Release 7.1.0.

Description

Displays the MPLS forwarding table.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- bgp—Displays BGP-specific forwarding information
- ldp—Displays LDP-specific forwarding information
- rsvp-te—Displays RSVP-TE–specific forwarding information
- atm—Displays information for the specified ATM VPI/VCI labels
  - *vpi*—Specifies ATM VPI that partially designates a label
  - *vci*—Specifies ATM VCI that partially designates a label
- *labelNumber*—Label number, in the range 16–1048575
- *labelRangeEnd*—Number, in the range 16–1048575, that specifies the high end of a range of labels
- brief—Displays only brief or summary information about the tunnels
- bindings—Displays protocol-specific label-to-FEC bindings
- detail—Displays detailed information
- *filter*—See Filtering show Commands on page 4

Mode

Privileged Exec, User Exec

Related Documentation

- Monitoring LDP-Related Settings for VPLS
- Monitoring MPLS Forwarding for Layer 2 Services over MPLS
- Monitoring MPLS Forwarding Table for VPWS

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show mpls interface

Syntax

show mpls interface [major | shim | minor]
[summary | [state not-up] [brief | detail]
[*interfaceType interfaceSpecifier* | name *tunnelName*] [delta]] [*filter*]

Release Information

Command introduced in JunosE Release 7.1.0.
minor, **detail**, and **delta** keywords added in JunosE Release 7.1.0.
name keyword and *tunnelName* variable added in JunosE Release 7.1.0.
summary keyword added in JunosE Release 8.0.0.

Description

Displays status and configuration information about MPLS major interfaces, shim interfaces, minor interfaces or all MPLS interfaces (the default) on the router.

Options

- major—Displays information about MPLS major interfaces
- shim—Displays information about shim interfaces used for layer 2 over MPLS
- minor—Displays information about MPLS minor interfaces
- summary—Displays summary information about MPLS interfaces
- state not-up—Displays information only about interfaces that are not operationally up
- brief—Displays limited interface information
- detail—Displays detailed information
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *tunnelName*—Name of the tunnel represented by the MPLS minor interface
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode

Privileged Exec, User Exec

Related Documentation

- Monitoring MPLS Forwarding for Layer 2 Services over MPLS

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show mpls l2transport interface

Syntax

show mpls l2transport interface
[summary | [*interfaceType interfaceSpecifier*] [brief | detail] [state not-up] [delta]]
[*filter*]

Release Information

Command introduced before JunosE Release 7.1.0.
summary keyword added in JunosE Release 8.0.0.

Description

Displays status and configuration information about layer 2 services over MPLS (also known as Martini, or layer 2 transport) on the router or on specific interfaces.

Options

- summary—Displays summary information about layer 2 services over MPLS
- *interfaceType*—Displays information only for the specified MPLS interface; if not specified, information for all interfaces is displayed
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- brief—Displays limited interface information
- detail—Provides expanded information about layer 2 services, rather than a summary
- state not-up—Displays information only about interfaces that are not up
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode

Privileged Exec, User Exec

Related Documentation

- Monitoring MPLS Forwarding for Layer 2 Services over MPLS
- Monitoring the Policy Configuration of Layer 2 Services over MPLS

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show mpls l2transport load-balancing-group

Syntax show mpls l2transport load-balancing-group [*groupNumber*]
[member-circuits [brief]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about a all configured load-balanced Martini circuits or a specified circuit.

Options
- *groupNumber*—Displays information for the specified group number
- member-circuits—Displays member circuit information, including candidate ports, member circuits, and member subinterfaces
- brief—Displays summary information for the member circuits
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show mpls minor-interface

Syntax show mpls minor-interface
[summary | [state not-up] [brief | detail] [name *tunnelName*] [delta]]
[*filter*]

Release Information Command introduced in JunosE Release 7.1.0.

Description Displays status and configuration for all minor interfaces in the current router context.

Options
- summary—Displays summary information about minor interfaces
- state not-up—Displays information only about interfaces that are not operationally up
- brief—Displays only brief or summary information about the minor interfaces
- detail—Provides expanded information about minor interfaces, rather than a summary
- *tunnelName*—Name of the tunnel represented by the MPLS minor interface
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show mpls next-hop

Syntax show mpls next-hop [*nextHopIndex*] [delta] [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.

Description Displays MPLS next hops and any available next-hop statistics. Next hops can be pointed to by MPLS forwarding entries on an LSR, IP or IPv6 routes on an LER, and VPLS bridge groups.

Options
- *nextHopIndex*—Number identifying a next hop, in the range 1–1048575
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show mpls phb-id

Syntax show mpls phb-id

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the PHB identifiers for MPLS.

Mode Privileged Exec, User Exec

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show mpls profile

Syntax show mpls { rsvp | tunnels } profile [*profileName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays a specific RSVP-TE or tunnel profile, or all RSVP-TE or tunnel profiles.

Options
- rsvp—Specifies the RSVP-TE profile
- tunnels—Specifies the tunnel profile
- *profileName*—Name of the profile to be displayed
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show mpls rsvp

Syntax show mpls rsvp [psb | rsb | sessions]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays status and configuration information about RSVP on the router or on specific interfaces. Also, displays RSVP path control blocks, reservation state control blocks, or complete RSVP session information for the virtual router.

NOTE: Beginning with JunosE Release 13.0.x, the **psb**, **rsb**, and **sessions** keywords are optional arguments. You can enter the **show mpls rsvp** command without any of the keywords to display consolidated information on RSVP settings configured on the router. In JunosE releases numbered lower than 13.0.x, you can use the **show mpls rsvp** command only with one of the keywords that is available with this command.

Options

- psb—Displays path state control blocks
- rsb—Displays reservation state control blocks
- sessions—Displays RSVP session information

Mode Privileged Exec, User Exec

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show mpls rsvp authentication

Syntax show mpls rsvp authentication [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about RSVP authentication.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show mpls rsvp bfd interfaces

Syntax show mpls rsvp bfd interfaces [*filter*]

Release Information Command introduced in JunosE Release 8.1.0.

Description Displays session information for RSVP-TE interfaces on which BFD is enabled, including minimum interval, minimum receive interval, minimum transmit interval, and multiplier values.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show mpls rsvp counters

Syntax show mpls rsvp counters [interface *interfaceType interfaceSpecifier*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
filter variable added in JunosE Release 7.1.0.

Description Displays various counters for RSVP interfaces.

Options
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show mpls rsvp hello graceful restart

Syntax show mpls rsvp hello graceful restart [*filter*]

Release Information Command introduced in JunosE Release 8.0.0.

Description Displays status of RSVP-TE graceful restart.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show mpls rsvp hello instance

Syntax show mpls rsvp hello instance [detail] [*peerAddress*] [*filter*]

Release Information Command introduced in JunosE Release 7.3.0.

Description Displays information from RSVP-TE hello adjacency instances, either in summary or detailed format.

Options
- detail—Displays the contents of a specific adjacency instance or of all adjacency instances
- *peerAddress*—IP address of an RSVP-TE hello adjacency peer
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show mpls tunnels

Syntax show mpls [traffic-eng] tunnels [name *tunnelName*]
[role { all | head | tail | middle | remote } | up | down]
[source-id *sourceAddress* [*srcId*]] [destination *destAddr*]
[interface *interfaceType interfaceSpecifier*] [brief | count-only] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays status and configuration for all tunnels or for a specific tunnel in the current router context.

Options

- traffic-eng—Specifies optional keyword for compatibility with non–E Series implementations
- *tunnelName*—Name of tunnel or minor interface to be displayed
- role—Displays tunnels in which the router has a specified role:
  - all—Displays all tunnels of which the router is a part
  - head—Displays tunnels where the router is the ingress router, or tunnel headend
  - tail—Displays tunnels where router is the egress router, or tunnel tailend (endpoint or destination of the tunnel)
  - middle—Displays tunnels where router is a transit router on the tunnel
  - remote—Displays tunnels where router is a transit router or egress router (tailend)
- up—Displays tunnels that are up
- down—Displays tunnels that are down
- *sourceAddress*—Source address of tunnels to be displayed
- *srcId*—Local ID associated with source address of tunnels to be displayed, an integer in the range 0–65535
- *destAddress*—Destination address of tunnels to be displayed
- interface—Displays information for the specified interface
  - *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- brief—Displays only brief or summary information about the tunnels
- count-only—Displays a count for entries that match the specified conditions
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show mroute port count

Syntax show mroute port [*portNumber*] count [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the mroute port outgoing interface limits and counts.

Options
- *portNumber*—Port number (in the form *slot/port*) for which you want to display information; if you omit the port number, the router displays information for all ports belonging to the bridge group
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring Multicast Routes on Virtual Router Ports

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show multicast group limit

Syntax show multicast group limit [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the number of IGMP or MLD groups associated with a port, and if configured, the maximum number of groups that a port can accept.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show nbma arp

Syntax show nbma arp [*interfaceType interfaceSpecifier*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays ARP table entries for NBMA interfaces.

Options
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5

Mode Privileged Exec, User Exec

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show ntp associations

Syntax show ntp associations [detail] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about NTP servers.

Options
- detail—Provides expanded information about the ntp servers, rather than a summary
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ntp status

Syntax show ntp status [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the NTP configuration and status for the router.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show nvs

Syntax show nvs [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about NVS.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show packet-drop-monitoring-threshold

Syntax show packet-drop-monitoring-threshold

Release Information Command introduced in JunosE Release 13.3.0.

Description Displays the threshold value set to log a warning message for packets dropped in the forwarding path.

Mode Privileged Exec

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show parent-group

Syntax show parent-group name *parentGroup* [brief] [*filter*]

Release Information Command introduced in JunosE Release 8.0.0.

Description Displays information about an external parent group. If you do not provide a parent group name, displays all parent groups.

Options
- *parentGroup*—Name of parent group
- brief—Displays information in a condensed format
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring External Parent Groups

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show policy-list

Syntax show policy-list [*policyName* [precedence *precValue* [rule *ruleNumber*]]] [brief] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about policy lists.

Options
- *policyName*—Name of policy
- *precValue*—Precedence for policy rule
- *ruleNumber*—Number of policy rule
- brief—Displays information in a condensed format
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring Policy Lists

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show policy-parameter

Syntax show policy-parameter [*parameterName*] [brief] [*filter*]

Release Information Command introduced in JunosE Release 8.0.0.

Description Displays information about a policy parameter. If you do not provide a parameter name, displays all parameters.

Options
- *parameterName*—Name of parameter
- brief—Displays information in a condensed format
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring Policy List Parameters

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show policy-resources slot

Syntax show policy-resources slot { *slotNumber* | all }

Release Information Command introduced in JunosE Release 14.2.0.

Description Displays policy resource consumption information about a particular or all slots to which the policies are attached.

Options
- *slotNumber*—Displays policy resource consumption information about a specific slot
- all—Displays policy resource consumption information about all slots to which policies are attached

Mode Privileged Exec, User Exec

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show policy-resources trap

Syntax show policy-resources trap

Release Information Command introduced in JunosE Release 14.2.0.

Description Displays whether the policy resource trap is enabled or disabled.

Mode Privileged Exec, User Exec

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show ppp interface

Syntax show ppp interface [*interfaceType interfaceSpecifier*]
[full | { *dataRestriction* }* [*protocolRestriction*]*] [state *stateRestriction*]
[delta] [*filter*]

For multilinked PPP interfaces, the following options are additionally available:

show ppp interface mlppp [*interfaceSpecifier*] members [*filter*]

show ppp interface mlppp links [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
eap keyword added in JunosE Release 7.3.0.

Description Displays information about the PPP interface type that you specify.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- full—Displays configuration, status, and statistics information for the interface, including information specific to LCP, IPCP, OSINLCP, MPLSCP, PAP, and CHAP; equivalent to specifying **config status statistics**
- *dataRestriction*—One or more of the following keywords; you can repeat a keyword without effect
  - config—Displays information about the PPP interface configuration
  - status—Displays information about the PPP interface operational status
  - statistics—Displays information about the PPP interface statistics
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line
- *protocolRestriction*—One or more of the following keywords
  - eap—Displays EAP-specific information
  - lcp—Displays LCP-specific information
  - ip—Displays IPCP-specific information
  - ipv6—Displays IPv6CP-specific information
  - osi—Displays OSINLCP-specific information
  - mpls—Displays MPLSCP-specific information
  - pap—Displays PAP-specific information
  - chap—Displays CHAP-specific information

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- *stateRestriction*—Information is displayed only for interfaces in one of the following specified states:
  - open—Interface is administratively enabled, meaning that the **no ppp shutdown** command is operational
  - closed—Interface is administratively disabled, meaning that the **ppp shutdown** command is operational
  - up—Interface on which the LCP has been negotiated
  - down—Interface on which the LCP has not been negotiated, the negotiations have failed, or the connection has been ended
  - lower-layer-down—Interface that is not up and is waiting for the lower layer to come up to initiate negotiations for LCP
  - not-present—Interface that is not present because the hardware is not available. When the interface is in this state, no detailed information is available.
  - passive—Interface with the operational status passive
  - tunneled—Tunneled PPP interfaces
  - no-ip—Interface on which IPCP is not configured
  - ip-open—Interface on which IPCP is administratively enabled, meaning that the **no ppp shutdown ip** command is operational
  - ip-closed—Interface on which IPCP is administratively disabled, meaning that the **ppp shutdown ip** command is operational
  - ip-up—Interface on which the IPCP has been negotiated
  - ip-down—Interface on which the IPCP has not been negotiated, the negotiations failed, or the connection has been ended
  - no-ipv6—Interface on which IPv6CP is not configured
  - ipv6-open—Interface on which IPv6CP is administratively enabled, meaning that the no ppp shutdown ipv6 command is operational
  - ipv6-closed—Interface on which IPv6CP is administratively disabled, meaning that the ppp shutdown ipv6 command is operational
  - ipv6-up—Interface on which the IPv6CP has been negotiated
  - ipv6-down—Interface on which the IPv6CP has not been negotiated, the negotiations failed, or the connection has been ended
  - no-osi—Interface on which OSINLCP is not configured
  - osi-open—Interface on which OSINLCP is administratively enabled, meaning that the **no ppp shutdown osi** command is operational
  - osi-closed—Interface on which OSINLCP is administratively disabled, meaning that the **ppp shutdown osi** command is operational
  - osi-up—Interface on which the OSINLCP has been negotiated

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- osi-down—Interface on which the OSINLCP has not been negotiated, the negotiations failed, or the connection has been ended
- no-mpls—Interface on which MPLSCP is not configured
- mpls-open—Interface on which MPLSCP is administratively enabled, meaning that the **no ppp shutdown mpls** command is operational
- mpls-closed—Interface on which MPLSCP is administratively disabled, meaning that the **ppp shutdown mpls** command is operational
- mpls-up—Interface on which the MPLSCP has been negotiated
- mpls-down—Interface on which the MPLSCP has not been negotiated, the negotiations failed, or the connection has been ended

- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4
- members—Lists all MLPPP member links, or only those for a specified MLPPP bundle
- links—Lists all MLPPP encapsulated links, regardless of whether the links are members of an MLPPP bundle

Mode Privileged Exec, User Exec

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show ppp interface summary

Syntax show ppp interface summary [config | admin | oper] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays a summary of all nonmultilinked and multilinked PPP interfaces configured on the router.

Options
- config—Displays summary information about PPP configuration status
- admin—Displays summary information about PPP administration status
- oper—Displays summary information about PPP operational status
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show ppp peer-ip-address-optional

Syntax show ppp peer-ip-address-optional

Release Information Command introduced in JunosE Release 11.2.0.

Description Displays whether an IP address is required in a client request for an IPCP negotiation.

Mode Global Configuration

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show ppp session-To-Thirteen-Years

Syntax show ppp session-To-Thirteen-Years

Release Information Command introduced in JunosE Release 13.2.0.

Description Displays whether the capability to preserve PPP sessions for a maximum timeout period of 13 years is enabled on the router by using the **tech-support encoded-string** command.

By default, established PPP sessions are maintained for 366 days before being terminated (which takes effect from the default value of the **aaa timeout session** *sessionTimeout* command). If you configure RADIUS authentication for PPP sessions and the Session-Timeout attribute from the RADIUS server returns a value of zero, the scenario is the same as the default behavior. In such a case, PPP sessions are preserved for a maximum of 366 days.

If you used the **tech-support encoded-string** command to increase the maximum lifetime of PPP sessions to be 13 years, you must reboot the router configuration with factory default settings to restore the default maximum timeout as 366 days for PPP sessions.

Mode Privileged Exec, User Exec

Related Documentation

- Monitoring the Maximum Timeout of PPP Sessions

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show pppoe interface

Syntax show pppoe interface [*interfaceType interfaceSpecifier*] [delta] [*filter*]

show pppoe interface [full] [summary]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the PPPoE interface you specify. Use the **summary** keyword to display information for all configured PPPoE interfaces.

Options

- *interfaceType*—One of the following interface types listed in Interface Types and Specifiers on page 5*:*
  - 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 on page 5
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4
- full—Displays configuration, status, and statistics information
- summary—Displays administrative and operational status of all configured PPPoE interfaces

Mode Privileged Exec, User Exec

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show pppoe interface lockout-time

Syntax show pppoe interface [*interfaceType interfaceSpecifier*] lockout-time [*filter*]

Release Information Command introduced in JunosE Release 7.2.0.

Description In configurations with dynamic PPPoE subinterfaces over static PPPoE major interfaces, displays detailed information about the current encapsulation type lockout condition for each PPPoE client associated with the dynamic PPPoE subinterface column. The output of this command displays multiple entries for the same MAC Address, one for each interworking function (IWF) PPPoE session, if multiple IWF sessions contain the same MAC address.

Options

- *interfaceType*—One of the following interface types listed in "Interface Types and Specifiers" on page 5:
  - 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 on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show pppoe-service-name-table

Syntax show pppoe-service-name-table { brief | name *tableName* } [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the contents of the specified PPPoE service name table. The command displays the table name, the name of each specific service name entry in the table, action (terminate or drop) associated with the service name tag, and the action configured for custom service name tags.

Options

- brief—Displays the names of all PPPoE service name tables configured on the router
- *tableName*—Name of the PPPoE service name table; string of up to 32 alphanumeric characters
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show pppoe subinterface

Syntax show pppoe subinterface [*interfaceType interfaceSpecifier*] [delta] [*filter*]

show pppoe subinterface [full] [summary] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays all available data for a specific PPPoE subinterface. Use the **summary** keyword to display information for all configured PPPoE subinterfaces.

Options

- *interfaceType*—One of the following interface types listed in Interface Types and Specifiers on page 5*:*
  - 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 on page 5
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4
- full—Displays configuration, status, and statistics information
- summary—Displays administrative and operational status of all configured PPPoE subinterfaces

Mode Privileged Exec, User Exec

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show privilege

Syntax show privilege

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the privilege level of the current user.

Mode Privileged Exec, User Exec

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show privilege group

Syntax show privilege group *privilegeGroupName*

Release Information Command introduced in JunosE Release 8.0.0.

Description Displays information for all privilege groups or for the specified privilege group.

Options
- *privilegeGroupName*—Name of the privilege group

Mode Privileged Exec

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show processes cpu

Syntax show processes [cpu] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays CPU resources used by system processes.

Options
- cpu—Displays CPU use; default display if you omit any keyword
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show processes memory

Syntax

show processes memory [detail] [*filter*]

show processes memory [slot { *slotNumber* | all }] application [*applicationName* [virtual-router [*virtualRouterName* [:*vrfName*]]]] [detail] [*filter*]

show processes memory [slot { *slotNumber* | all }] virtual-router [*virtualRouterName* [:*vrfName*] [application [*applicationName*]]] [detail] [*filter*]

show processes memory slot { *slotNumber* | all } detail

Release Information

Command introduced before JunosE Release 7.1.0.

Description

Displays the amount of memory-related resources used by system processes. Because the router allocates memory to system processes in chunks, issuing this command performs a cleanup process to gather unused, available memory for reallocation.

Options

- detail—Displays detailed system memory listing
- *filter*—See Filtering show Commands on page 4
- slot *slotNumber*—Displays memory usage for just the controller in the specified slot
- slot all—Displays memory usage for all slot controllers
- application—Displays system memory usage on a per-application basis
- *applicationName*—Name of the application for which you want to view system memory usage
- virtual-router—Displays memory usage for all virtual routers on a per-router basis
- virtual-router *virtualRouterName*—Displays memory usage for each data store associated with the specified router
- *vrfName*—Name of the VRF (note the use of the colon before you specify a VRF name)

Mode

Privileged Exec

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show profile

Syntax show profile name *profileName* [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about a specific IP profile, such as the available PPPoE profile information: PPPoE URL string, PPPoE MOTM string, or both. If neither exists, the fields do not appear in the display.

Options
- *profileName*—Name of the profile
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show profile brief

Syntax show profile brief [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the names of all IP profiles.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show qos interface-hierarchy

Syntax

To display the interface hierarchy for interfaces:

show qos interface-hierarchy interface *interfaceType interfaceSpecifier* [*atmVpi* | *s-vlanIdValue*] [*filter*]

To display the interface hierarchy for L2TP sessions:

show qos interface-hierarchy l2tp session *sessionName* [*filter*]

To display the interface hierarchy for tunnel-service interfaces:

show qos interface-hierarchy tunnel-server *interfaceSpecifier* [*filter*]

To display the interface hierarchy for an interface set:

show qos interface-hierarchy qos-interface-set *interfaceSetName* [*filter*]

To display the interface hierarchy for an interface superset:

show qos interface-hierarchy qos-interface-superset *interfaceSupersetName* [*filter*]

Release Information

Command introduced before JunosE Release 7.1.0.
atmVpi and *s-vlanIdValue* variables added in JunosE Release 7.1.0.
qos-interface-set keyword and *interfaceSetName* variable added in JunosE Release 9.2.0.
qos-interface-superset keyword and *interfaceSupersetName* variable added in JunosE Release 9.2.0.

Description

Displays information about the router's QoS interface hierarchy.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *atmVpi*—Virtual path identifier of this PVC; number in the range 0–255
- *s-vlanIdValue*—S-VLAN ID number in the range 0–4095
- *sessionName* —Name of the L2TP session
- *interfaceSupersetName*—Name of the interface superset
- *interfaceSetName*—Name of the interface set
- *filter*—See Filtering show Commands on page 4

Mode

Privileged Exec, User Exec

Related Documentation

- Monitoring the QoS Profiles Attached to an Interface

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show qos-interface-set

Syntax show qos-interface-set [*interfaceSetName* [detail]] [*filter*]

Release Information Command introduced in JunosE Release 9.2.0.

Description Displays information about the configured QoS interface sets.

Options
- *interfaceSetName*—Name of the QoS interface set
- detail—Displays information in expanded format
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring the Configuration of QoS Interface Sets

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show qos-interface-superset

Syntax show qos-interface-superset [*interfaceSupersetName* [detail]] [*filter*]

Release Information Command introduced in JunosE Release 9.2.0.

Description Displays information about the configured QoS interface supersets.

Options
- *interfaceSupersetName*—Name of the QoS interface superset
- detail—Displays information in expanded format
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring the Configuration of QoS Interface Supersets

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show qos-parameter

Syntax To display settings for a specific parameter instance with references:

show qos-parameter [*qosParameterInstanceName*] references [brief | full] [*filter*]

To display references globally:

show qos-parameter [*qosParameterInstanceName*] references global
[*qosParameterInstanceName*] [brief | full] [*filter*]

To display references for interfaces:

show qos-parameter [*qosParameterInstanceName*] references [interface *interfaceType*
interfaceSpecifier [*atmVpi* | *s-vlanIdValue*]] [explicit] [brief | full]
[*filter*]

To display references for L2TP sessions:

show qos-parameter [*qosParameterInstanceName*] references lt2p session *sessionName*
[explicit] [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.
full keyword added in JunosE Release 7.2.0.

Description Displays QoS parameter instance settings for QoS clients.

Options

- *qosParameterInstanceName*—Name of the parameter instance
- references—Displays interfaces that reference this parameter instance
- global—Displays information about global parameter instances
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *atmVpi*—Virtual path identifier of this PVC; number in the range 0–255
- *s-vlanIdValue*—S-VLAN ID number in the range 0–4095
- *sessionName* —Name of the L2TP session
- brief—Displays information in a condensed format
- full—Displays information in expanded format
- explicit—Displays parameter instances only on the specified interface and not parameter instances stacked above the interface
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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Related Documentation

- Monitoring QoS Parameter Instances

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show qos-parameter-define

Syntax show qos-parameter-define [*qosParameterDefinitionName*] [brief | references] [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.

Description Displays QoS parameter definition settings for QoS administrators.

Options
- *qosParameterDefinitionName*—Name of the parameter definition
- brief—Displays information in a condensed format
- references—Display references to this parameter definition
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring QoS Parameter Definitions

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show qos-port-type-profile

Syntax show qos-port-type-profile [*typeOfInterface*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
lag option added in JunosE Release 8.1.0.

Description Displays information about the QoS port-type profile for particular interface type.

Options
- *typeOfInterface*—One of the following interface types to be associated with the QoS port-type profile: atm, ethernet, lag, serial, server-port
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring the Configuration of QoS Port-Type Profiles

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show qos-profile

Syntax

To display information about all QoS profiles or a specific QoS profile:

show qos-profile [*qosProfileName*] [brief] [*filter*]

To display information about the QoS profiles attached to a specific interface:

show qos-profile references interface *interfaceType interfaceSpecifier* [*atmVpi* | *s-vlanIdValue*] [explicit] [brief] [*filter*]

To display information about the QoS profiles attached to a specific L2TP session:

show qos-profile references lt2p session *sessionName* [explicit] [brief] [*filter*]

To display information about the QoS profiles attached to a specific tunnel-service interface:

show qos-profile references tunnel-server *interfaceType* [explicit] [brief] [*filter*]

Release Information

Command introduced before JunosE Release 7.1.0.
references keyword added in JunosE Release 7.1.0.

Description

Displays information about QoS profiles configured on the router. Use the **references** keyword to display information about QoS profiles attached to an interface, L2TP session, or tunnel-service interface.

Options

- *qosProfileName*—Name of the QoS profile
- references—Displays interface profiles that reference this profile
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *atmVpi*—Virtual path identifier of this PVC; number in the range 0–255
- *s-vlanIdValue*—S-VLAN ID number in the range 0–4095
- *sessionName* —Name of the L2TP session
- explicit—Displays attachments for QoS profiles only on the specified interface and not QoS profiles stacked above the interface
- brief—Displays information in a condensed format
- *filter*—See Filtering show Commands on page 4

Mode

Privileged Exec, User Exec

Related Documentation

- Monitoring the Configuration of QoS Profiles

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show qos queue-thresholds

Syntax show qos queue-thresholds egress-slot *egressSlot*
[queue-profile [*queueProfileName*] | region [*regionNumber*]] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the color-based thresholds for queues on each egress slot.

Displaying queue thresholds by queue profile shows buffer memory information by queue profile, and, within that profile, shows the thresholds for each region.

Displaying queue thresholds by region organizes the buffer memory information by queue region, and, within each region, shows the buffer allocations for each queue profile.

Options
- queue-thresholds—Displays color-based thresholds for queues on an egress slot
- *egressSlot*—Displays color-based thresholds for an egress slot
- queue-profile—Displays thresholds for each region of the queue profile
- *queueProfileName*—Name of the queue profile
- region—Displays egress memory or buffer region oversubscription
- *regionNumber*—Number identifying the egress memory or buffer region on the line module
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring Queue Thresholds

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show qos scheduler-hierarchy

Syntax To display information about the scheduler hierarchy on a specified interface:

show qos scheduler-hierarchy *interfaceType interfaceSpecifier*
[*atmVpi* | *s-vlanIdValue*] [explicit | level *levelNumber*]
[traffic-class-group { *trafficClassGroupName* | default }] [brief | full | summary]
[*filter*]

To display information about the scheduler hierarchy on a specified tunnel-service interface:

show qos scheduler-hierarchy tunnel-server *interfaceType* [explicit |
level *levelNumber*] [traffic-class-group { *trafficClassGroupName* | default }] [brief | full | summary] [*filter*]

To display information about the scheduler hierarchy on a specified L2TP session:

show qos scheduler-hierarchy lt2p session *sessionName* [explicit | level *levelNumber*]
[traffic-class-group { *trafficClassGroupName* | default }] [brief | full | summary] [*filter*]

To display information about the scheduler hierarchy for an interface set:

show qos scheduler-hierarchy qos-interface-set *interfaceSetName* [full | brief | summary] [*filter*]

To display information about the scheduler hierarchy for an interface superset:

show qos scheduler-hierarchy qos-interface-superset *interfaceSupersetName* [full | brief | summary] [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.
qos-interface-set keyword and *interfaceSetName* variable added in JunosE Release 9.2.0.
qos-interface-superset keyword and *interfaceSupersetName* variable added in JunosE Release 9.2.0.

Description Displays information about the scheduler hierarchy on a specified interface, L2TP session, or tunnel-service interface.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *atmVpi*—Virtual path identifier of this PVC; number in the range 0–255
- *s-vlanIdValue*—S-VLAN ID number in the range 0–4095
- explicit—Displays scheduler profiles for the specified interface rather than those stacked above the interface

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- *levelNumber*—Number of scheduler levels above specified interface to report; 0 indicates the specified interface
- *trafficClassGroupName*—Name of the traffic-class group for which to display the scheduler hierarchy
- *sessionName* —Name of the L2TP session
- *interfaceSetName*—Name of the interface set
- *interfaceSupersetName*—Name of the interface superset
- default—Displays the scheduler hierarchy of the default traffic-class group
- brief—Displays information in condensed format
- full—Displays information in expanded format
- summary—Displays summary of scheduler profiles stacked above the specified interface
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring the QoS Scheduler Hierarchy

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show qos shared-shaper

Syntax

To display information about shared shapers for a specified interface:

show qos shared-shaper interface *interfaceType interfaceSpecifier*
[*atmVpi* | *s-vlanIdValue*] [summary] [explicit] [brief | full] [*filter*]

To display information about shared shapers on an L2TP session:

show qos shared-shaper lt2p session *sessionName*
[summary] [explicit] [brief | full] [*filter*]

To display information about shared shapers on a tunnel-service interface:

show qos shared-shaper tunnel-server *interfaceType*
[summary] [explicit] [brief | full] [*filter*]

To display information about shared shapers associated with an interface set:

show qos shared-shaper qos-interface-set *interfaceSetName* [summary] [explicit] [brief | full] [*filter*]

To display information about shared shapers associated with an interface superset:

show qos shared-shaper qos-interface-superset

interfaceSupersetName [summary] [explicit] [brief | full] [*filter*]

Release Information

Command introduced before JunosE Release 7.1.0.
atmVpi and *s-vlanIdValue* variables added in JunosE Release 7.1.0.
qos-interface-set keyword and *interfaceSetName* variable added in JunosE Release 9.2.0.
qos-interface-superset keyword and *interfaceSupersetName* variable added in JunosE Release 9.2.0.

Description

Displays information about shared shapers for an interface, L2TP session, or tunnel-service interface.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *atmVpi*—Virtual path identifier of this PVC; number in the range 0–255
- *s-vlanIdValue*—S-VLAN ID number in the range 0–4095
- *sessionName* —Name of the L2TP session
- *interfaceSetName*—Name of the QoS interface set associated with the shared shaper
- *interfaceSuperSetName*—Name of the QoS interface superset associated with the shared shaper
- summary—Displays summary of shared shapers stacked above the specified interface

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- explicit—Displays shared shapers for the specified interface rather than those stacked above the interface
- brief—Displays information in condensed format
- full—Displays information in expanded format
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring Shared Shapers

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show qos-shared-shaper-control

Syntax show qos-shared-shaper-control

Release Information Command introduced in JunosE Release 8.0.0.

Description Displays information about the user-configurable variables for controlling the simple shared shaper algorithm.

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring Shared Shaper Algorithm Variables

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show queue-profile

Syntax show queue-profile [*queueProfileName*] [brief | references] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about queue profiles configured on the E Series router.

Options
- *queueProfileName*—Name of the queue profile
- brief—Displays information in a condensed format
- references—Displays QoS profiles that reference this profile
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring Queue Profiles

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show radius acct-session-id-format

Syntax show radius acct-session-id-format [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays RADIUS Acct-Session-Id format used for RADIUS attribute 44, Acct-Session-Id.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius algorithm

Syntax show radius algorithm [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the RADIUS algorithm that the RADIUS servers use.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius attributes-ignored

Syntax show radius attributes-ignored [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays whether the RADIUS server accepts or ignores RADIUS attributes in Access-Accept messages. See the **radius ignore** command.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius attributes-included

Syntax show radius attributes-included [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the RADIUS attributes that are included in and excluded from Access-Request, Acct-Start, and Acct-Stop messages. You configure attribute inclusion using the **radius include** commands.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius calling-station-delimiter

Syntax show radius calling-station-delimiter [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the delimiter used in RADIUS attribute 30, Calling-Station-Id, for the authenticated ATM PPP users.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius calling-station-format

Syntax show radius calling-station-format [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the format of RADIUS attribute 31, Calling-Station-Id.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius connect-info-format

Syntax show radius connect-info-format [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the format of RADIUS attribute 77, Connect-Info.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius dsl-port-type

Syntax show radius dsl-port-type [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the DSL port type used in RADIUS attribute 61, NAS-Port-Type, for ATM users.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius ethernet-port-type

Syntax show radius ethernet-port-type [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Display RADIUS attribute 61, NAS-Port-Type, for Ethernet interfaces.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius icr-partition-accounting

Syntax show radius icr-partition-accounting [*filter*]

Release Information Command introduced in JunosE Release 10.3.0.

Description Displays whether ICR partition accounting is enabled on the virtual router

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius nas-identifier

Syntax show radius nas-identifier [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the RADIUS client's value for RADIUS attribute 32, NAS-Identifier.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius nas-port-format

Syntax show radius nas-port-format [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the format used for RADIUS attribute 5, NAS-Port.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius nas-port-format extended

Syntax show radius nas-port-format extended { atm | ethernet } [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.

Description Displays the format used for RADIUS attribute 5, NAS-Port, on the E120 router and the E320 router.

Options

- atm—Displays information about ATM interfaces
- ethernet—Displays information about Gigabit Ethernet and 10-Gigabit Ethernet interfaces
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius override

Syntax show radius override [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the current override settings configured on the RADIUS client (LNS) for the NAS-IP-Address [4], NAS-Port-Id [87], Calling-Station-Id [31], and NAS-Identifier [32] RADIUS attributes. The nas-info field in the command output indicates the virtual router that generates the NAS-IP-Address and NAS-Identifier attributes for AAA broadcast accounting packets.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius per-profile-attr-list

Syntax show radius per-profile-attr-list [brief | *profileName*]

Release Information Command introduced in JunosE Release 12.1.0.

Description Displays all the attributes configured in the RADIUS per-profile lists.

Options
- brief—Displays the RADIUS per-profile list
- *profileName*—Name of the RADIUS per-profile list; string of up to 32 characters

Mode Privileged Exec

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show radius pppoe nas-port-format

Syntax show radius pppoe nas-port-format [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the configuration of the NAS-Port-Format for PPPoE subscribers.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius relay

Syntax show radius relay [authentication | accounting]
{ servers | statistics [*ipAddress*] [delta] } [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about RADIUS relay authentication and accounting servers.

Options
- authentication—Displays authentication information only
- accounting—Displays accounting information only
- servers—Displays a list of authentication and/or accounting servers
- statistics—Displays authentication and/or accounting statistics
- *ipAddress*—Address of a RADIUS relay client for which statistics are displayed
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius relay udp-checksum

Syntax show radius relay udp-checksum [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about RADIUS relay UDP checksums.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius remote-circuit-id-delimiter

Syntax show radius remote-circuit-id-delimiter

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the delimiter character that the router uses to set off components in the PPPoE remote circuit ID value sent from a DSLAM and captured on the router. The default delimiter character is #.

Mode Privileged Exec

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show radius remote-circuit-id-format

Syntax show radius remote-circuit-id-format

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the format of the PPPoE remote circuit ID value sent from a DSLAM and captured on the router.

If the PPPoE remote circuit ID value is configured to include any or all of the agent-circuit-id, agent-remote-id, and nas-identifier components, the display lists the components included and the order in which they appear.

If the PPPoE remote circuit ID value is configured to use the format for the **dsl-forum-1** keyword of the radius remote-circuit-id-format command, the display indicates that this format is in effect.

Mode Privileged Exec

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show radius rollover-on-reject

Syntax show radius rollover-on-reject [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the configuration of the rollover-on-reject feature.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius servers

Syntax show radius [*serverType*] servers [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
pre-authentication keyword added in JunosE Release 8.1.0.

Description Displays information about the RADIUS servers configured on the router.

Options
- *serverType*—One of the following RADIUS server types:
  - authentication—Displays authentication information only
  - accounting—Displays accounting information only
  - dynamic-request—Displays dynamic-request information only
  - pre-authentication—Displays preauthentication information only
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring RADIUS Dynamic-Request Server Information

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show radius statistics

Syntax show radius [*serverType*] statistics [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
pre-authentication keyword added in JunosE Release 8.1.0.

Description Displays statistics for the RADIUS servers configured on the router.

Options
- *serverType*—One of the following RADIUS server types:
  - authentication—Displays authentication statistics only
  - accounting—Displays accounting statistics only
  - dynamic-request—Displays dynamic-request statistics only
  - pre-authentication—Displays preauthentication statistics only
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring RADIUS Dynamic-Request Server Information

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show radius trap

Syntax show radius trap [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the configuration of RADIUS SNMP traps.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius tunnel-accounting

Syntax show radius tunnel-accounting [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about RADIUS accounting for L2TP tunnels.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius udp-checksum

Syntax show radius udp-checksum [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about UDP checksums.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius update-source-addr

Syntax show radius update-source-addr [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the IP source address of the RADIUS client.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show radius vlan nas-port-format

Syntax show radius vlan nas-port-format [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays whether the S-VLAN ID is included in RADIUS attribute 5, NAS-Port.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show rate-limit-profile

Syntax show rate-limit-profile [*rateLimitProfileName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about rate-limit profiles.

Options
- *rateLimitProfileName*—Name of a rate-limit profile
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring Rate-Limit Profiles

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show reboot-history

Syntax show reboot-history [*fileName*.hty] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the reboot history of the router.

Options
- *fileName*—Name of a history file to display; if not specified, displays the current reboot.hty file
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show redundancy

Syntax show redundancy [brief | detail] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the supported redundancy modes as well as other status relating to high availability. In particular, the output indicates any conditions that are preventing the operational mode from being high availability.

Options
- brief—Displays summary redundancy information for line modules, SRP modules, or both
- detail—Displays detailed information for line modules, SRP modules, or both
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show redundancy clients

Syntax show redundancy clients [all | supported | unsafe | unsupported] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays high availability clients and their various levels of high availability support.

Options
- all—Displays all clients registered with high availability
- supported—Displays only clients that are supported by high availability
- unsafe—Displays only clients with an unsafe high availability state
- unsupported—Displays only clients that are not supported by high availability.
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show redundancy history

Syntax show redundancy history [srp] [line-card [slot *slotNum*]] [detail] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
line-card and **slot** keywords and *slotNum* variable added in JunosE Release 11.3.0.

Description Displays information about dates, times, and the number of occurrences for starts and switchovers for an SRP module and for a line module installed in a particular slot. If you enter this command without the **slot** keyword, redundancy details for all line modules on a router are displayed.

Options

- srp—Displays history information specific to the SRP modules
- line-card—Displays the configuration for line module redundancy
- *slotNum*—Number of the slot in which the line module resides in the router; for the E120 router, a number in the range 0–5; for the E320 router, a number in the range 0–5 or 11–16
- detail—Displays detailed history information
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show redundancy line-card

Syntax show redundancy line-card [slot *slotNum*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
slot keyword and *slotNum* variable added in JunosE Release 11.3.0.

Description Displays redundancy information specific to line modules, including supported redundancy modes and high availability status for a line module installed in a particular slot. If you enter this command without the **slot** keyword, redundancy details for all line modules on a router are displayed.

Options
- *slotNum*—Number of the slot in which the line module resides in the router; for the E120 router, a number in the range 0–5; for the E320 router, a number in the range 0–5 or 11–16
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show redundancy srp

Syntax show redundancy srp [brief | detail] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays redundancy information specific to SRP modules.

Options
- brief—Displays summary redundancy information for SRP modules
- detail—Displays detailed information for SRP modules
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show redundancy switchover-history

Syntax show redundancy switchover-history [srp] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the high availability switchover history for the router.

Options
- srp—Displays history information specific to the SRP modules
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show reload

Syntax show reload [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the reload status on the router.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show resource

Syntax show resource [[if-type { atm-active-sub-if | atm-sub-if | atm-vc | ip | ppp-link } [system | slot *slot*]] | [threshold [trap [status]]]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays statistical information about resources and their current threshold configurations.

Options

- if-type—Indicates interface type; see "Interface Types and Specifiers" on page 5
- atm-active-sub-if—Active ATM subinterfaces
- atm-sub-if—Both active and inactive ATM subinterfaces
- atm-vc—ATM virtual circuits
- ip—IP interfaces
- ppp-link—PPP link interfaces
- system—All slots on the system
- *slot*—Number of the chassis slot in the range 0–2 (ERX310 model), 0–6 (ERX7xx models), and 0–13 (ERX14xx models)
- threshold—Displays threshold information (optional keyword when used alone)
- trap—Displays threshold trap status
- status—Displays threshold trap status (optional keyword)

Mode Privileged Exec

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show route-map

Syntax show route-map [*listName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays all the route maps or the route map you specify. The default is all route maps.

Options
- *listName*—Name of a route map
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show rtr application

Syntax show rtr application [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays RTR application information.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show rtr collection-statistics

Syntax show rtr collection-statistics [*rtrIndex*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays RTR collection information.

Options
- *rtrIndex*—Number of the operation
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show rtr configuration

Syntax show rtr configuration [*rtrIndex*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the configuration for all RTR entries or for a specified entry.

Options
- *rtrIndex*—Number of the operation
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show rtr history

Syntax show rtr history [*rtrIndex*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the history collected for all RTR entries or for a specified entry.

Options
- *rtrIndex*—Number of the operation
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show rtr hops

Syntax show rtr hops [*rtrIndex*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information discovered on each of the hops.

Options
- *rtrIndex*—Number of the operation
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show rtr operational-state

Syntax show rtr operational-state [*rtrIndex*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the operational state for all RTR entries or for a specified entry.

Options
- *rtrIndex*—Number of the operation
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show running-configuration

Syntax show running-configuration [interface *interfaceType interfaceSpecifier*] |
[category *categoryName* [*categoryName*]*] [virtual-router *routerName*]
[[exclude-category interface *interfaceType*]*] [include-defaults] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the configuration currently running on the router, a specified virtual router, a specified interface, or a specified category of router settings. Available only if the router is in Manual Commit mode (configuration changes affect only the current system configuration).

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *categoryName*—Name of the category or subcategory of router settings; first *categoryName* variable in the syntax represents the category; repeated *categoryName* variables represent subcategories of the category
- *routerName*—Name of the virtual router
- exclude-category—Excludes information associated with a particular type of interface
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line
- include-defaults—Includes commands that set default values for various parameters
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show schedule macro

Syntax show schedule macro [*fileName* [*macroName*]] [*filter*]

Release Information Command introduced in JunosE Release 9.3.0.

Description Displays information about the scheduled macros configured on the E Series router.

Options
- *fileName*—Name of the file
- *macroName*—Name of the macro (.mac)
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Scheduling Macros

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show scheduler-profile

Syntax show scheduler-profile [*schedulerProfileName*] [brief | references] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about scheduler profiles configured on the E Series router.

Options
- *schedulerProfileName*—Name of the scheduler profile
- brief—Displays information in a condensed format
- references—Displays QoS profiles that reference this profile
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring the Configuration of Scheduler Profiles

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show secrets

Syntax show secrets [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays passwords and secrets.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show secure classifier-list

Syntax show secure classifier-list [*classifierName* [*classifierNumber*]] [brief | detailed] [*filter*]

Release Information Command introduced in JunosE Release 8.0.0.

Description Displays information about secure classifier lists.

Options
- *classifierName*—Name of the secure classifier list
- *classifierNumber*—Number of the classifier list
- brief—Displays information in a condensed, summary format
- detailed—Provides a detailed description of the trace, rather than a summary
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring Secure CLACL Configurations

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show secure policy-list

Syntax show secure policy-list [name *policyName*] [brief] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the secure policy lists that are configured for packet mirroring.

Options
- *policyName*—Name of the secure policy-list
- brief—Displays information in a condensed format
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring Secure Policy Lists

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show service config-monitor-periodicity

Syntax show service config-monitor-periodicity

Release Information Command introduced in JunosE Release 9.3.0.

Description Displays the time interval that the monitoring task detects corruption of a running configuration on both the primary and the standby SRP.

Mode Privileged Exec

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show service-management owner-session

Syntax show service-management owner-session { brief | *subscriberId* | *ownerName ownerId* [service-session *serviceName*] } [*filter*]

Release Information Command introduced in JunosE Release 8.0.0.

Description Displays subscriber session information based on the session owner.

Options

- brief—Displays limited information about the owner sessions
- *subscriberId*—ID of the subscriber
- *ownerName*—Name of the owner for the owner session; AAA for RADIUS-based subscribers
- *ownerId*—Unique ID of the owner for the owner session; Acct-Session-ID for RADIUS-based subscribers
- *serviceName*—Name of the service session used for the owner session
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show service-accounting-statistics

Syntax show service-accounting-statistics

Release Information Command introduced in JunosE Release 14.1.0.

Description Displays whether the capability to compute accounting details for subscriber service sessions based on scheduler profiles for policies, configured with rate-limit profiles in hierarchical parent groups, on output interfaces is enabled.

Mode Privileged Exec

Related Documentation

- Configuring Calculation of Service Session Accounting Based on Scheduler Profiles Instead of Rate-Limit Profiles in Hierarchical Parent Groups for Forwarded Packets
- Verifying Computation of Service Session Accounting Based on Scheduler Profiles
- service-accounting-statistics scheduler-based on page 479

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show service-management service-definition

Syntax show service-management service-definition { *fileName*.mac | brief } [*filter*]

Release Information Command introduced in JunosE Release 7.2.0.

Description Displays information for all service definitions or for the specified service definition.

Options
- *fileName*—Name of the service definition macro file
- brief—Displays limited information about the service definitions
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show service-management service-session-profile

Syntax show service-management service-session-profile { *profileName* | brief } [*filter*]

Release Information Command introduced in JunosE Release 7.2.0.

Description Displays information for user sessions.

Options
- *profileName*—Name of the service session profile
- brief—Displays limited information about the user sessions
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show service-management subscriber-session

Syntax show service-management subscriber-session { brief | *subscriberId* | *subscriberName* [interface *interfaceType interfaceSpecifier* [service-session *serviceName*]] } [*filter*]

Release Information Command introduced in JunosE Release 7.2.0.

Description Displays information for subscriber sessions.

Options

- brief—Displays limited information about the user sessions
- *subscriberId*—ID of the subscriber
- *subscriberName*—Name of the subscriber
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *serviceName*—Name of the service session used for the subscriber session
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show service-management summary

Syntax show service-management summary [*filter*]

Release Information Command introduced in JunosE Release 7.2.0.

Description Displays summary information for all subscriber and service sessions.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show snmp

Syntax show snmp [delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the status of communications between the SNMP agent and the SNMP manager.

Options
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show snmp access

Syntax show snmp access [storage] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
storage keyword added in JunosE Release 7.2.0.

Description Displays information about the groups you configured.

Options
- storage—Displays SNMP storage information
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show snmp agent

Syntax show snmp agent [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the SNMP MIB agent.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show snmp community

Syntax show snmp community [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about configured communities.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show snmp group

Syntax show snmp group [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.

Description Displays the list of available groups (dynamic and static). Detailed information is available through the **show snmp access** command.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show snmp interfaces

Syntax show snmp interfaces [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the configuration of the SNMP interface tables.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show snmp management-event

Syntax show snmp management-event [events | resource | triggers | statistics [error | event] [trigger *triggerOwner triggerName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays statistical SNMP event information for event table entries, router resources, and trigger table entries.

Options

- events—Displays event table entries
- resource—Displays resource information
- triggers—Displays trigger table entries
- statistics—Displays statistical information
- error—Displays error statistics
- event—Displays event statistics
- *triggerOwner*—Owner of trigger for which statistics are displayed; string of up to 32 alphanumeric characters
- *triggerName*—Name of trigger for which statistics are displayed; string of up to 32 alphanumeric characters
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show snmp notificationLog

Syntax show snmp notificationLog [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the configuration of the SNMP notification log.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show snmp secure-log

Syntax show snmp secure-log [*filter*]

Release Information Command introduced in JunosE Release 8.0.0.

Description Displays the contents of the SNMP secure audit log.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring SNMP Secure Audit Logs

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show snmp trap

Syntax show snmp trap [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about configured traps and trap destinations.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation
- Monitoring SNMP Secure Packet Mirroring Traps

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show snmp trap statistics

Syntax show snmp trap statistics [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays statistics on SNMP traps sent and received on the router.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show snmp user

Syntax show snmp user [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about users.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show snmp view

Syntax show snmp view [storage] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about the views you created.

Options
- storage—Displays SNMP storage information
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show socket statistics

Syntax show socket statistics [detailed] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays BSD socket-emulation statistics.

Options
- detailed—Displays detailed statistics for each TCP socket
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show sscc info

Syntax show sscc info [brief] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about SRC (formerly SDX or SSC) servers and SRC client (formerly SSCC) statistics.

Options
- brief—Displays abbreviated SRC client and server information
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show sscc options

Syntax show sscc options

Release Information Command introduced in JunosE Release 10.2.0.

Description Displays information about SRC client options for the virtual router.

Mode Privileged Exec, User Exec

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show sscc statistics

Syntax show sscc statistics [delta] [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.

Description Displays statistics about SRC (formerly SDX or SSC) servers and SRC client (formerly SSCC) statistics.

Options
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show sscc version

Syntax show sscc version [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the SRC client (formerly SSCC) version number.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show statistics-profile

Syntax show statistics-profile [*statisticsProfileName*] [brief | references] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about statistics profiles configured on the E Series router.

Options
- *statisticsProfileName*—Name of the statistics profile
- brief—Displays information in a condensed format
- references—Displays QoS profiles that reference this profile
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring the Configuration of Statistics Profiles

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show statistics tacacs

Syntax show statistics tacacs [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays TACACS+ server or TACACS+ statistics information.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show subscriber-policy

Syntax show subscriber-policy [*subscriberPolicyName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the set of forwarding (permit) and filtering (deny) rules for all subscriber policies configured on the router, or for a specified subscriber policy. If you omit the policy name, the router displays information about the default subscriber (client) policy, the default trunk (server) policy, and any nondefault subscriber policies that are configured for a subscriber interface associated with a bridge group or VPLS instance.

Options
- *subscriberPolicyName*—Name of the subscriber policy specified with the **subscriber-policy** command
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring Subscriber Policy Rules

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show subscribers

Syntax

To display detailed information:

show subscribers [ipv6 [*ipv6Prefix*]]
[domain *domainName* | icr-partition *icrPartitionLocationId* |
interface { atm | ethernet | lag } *interfaceSpecifier* |
port *interfaceSpecifier* | profile *profileName* | slot *slotNumber* | username *userName* |
virtual-router *vrName*] [*filter*]

To display summary information:

show subscribers summary [domain | icr-partition | interface | port | profile | slot |
virtual-router | lag] [*filter*]

Release Information

Command introduced before JunosE Release 7.1.0.
interface, **atm**, and **ethernet** keywords added in JunosE Release 7.3.0.
slot keyword and *slotNumber* variable added in JunosE Release 7.3.0.
icr-partition keyword and *icrPartitionLocationId* variable added in JunosE Release 10.3.0.
lag keyword added to the **show subscribers** command in JunosE Release 11.0.0.
lag keyword added to the **show subscribers summary** command in JunosE Release 12.3.0.
profile keyword and *profileName* variable added in JunosE Release 13.3.0.

Description

Displays the active subscribers on your router.

Options

- ipv6—Displays IPv6 subscribers for the domain
- *ipv6Prefix*—Prefix that defines the IPv6 network that you want to filter
- *userName*—Username of the active subscriber
- domain—Displays active subscribers for the domain
- *domainName*—Domain name matching usernames of active subscribers
- icr-partition—Displays active subscribers for the ICR partition
- *icrPartitionLocationId*—Unique identifier for each ICR partition on a chassis. Note that this ID is different from the partition ID, which is configured using the **ip vrrp** *vrid* **icr-partition** *partitionId* command. The partition location ID that you specify here is a combination of the interface within the chassis on which the ICR partition is configured and the VRRP ID, which is system-defined and nonconfigurable.
- interface—Displays active subscribers for the specified interface: **atm**, **ethernet**, or **lag**. In the **summary** version, this command displays active subscribers for all ATM, Ethernet, and LAG interfaces.
- *interfaceSpecifier*—Particular interface. The format varies according to the interface type; see "Interface Types and Specifiers" on page 5.
- port—Displays active subscribers for the port
- profile—Displays subscribers based on profile name

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- *profileName*—Displays subscribers that share the same profile name
- slot—Displays active subscribers for the slot
- *slotNumber*—Number of the chassis slot of the line module in the range 0–2 (ERX310 model), 0–6 (ERX7xx models), 0–13 (ERX14xx models), 0-5 (E120 router), and 0-16 (E320 router)
- virtual-router—Displays active subscribers for the VR
- *vrName*—Name of the VR to which interfaces of active subscribers are bound
- lag—Displays the consolidated information about active subscribers that are logged in on top of a LAG bundle
- *filter*—See Filtering show Commands on page 4
- summary—Displays the active subscribers for each domain, interface, port, slot, or virtual router

Mode Privileged Exec

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show subsystems

Syntax show subsystems [file *fileName*.rel] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays the names of subsystem files in the current software release or in a specified release file.

Options
- *fileName*—Name of the software release file; you can specify a file on a remote server by including the path as part of the filename; absence of a path indicates a local file
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show suspicious-control-flow-detection counts

Syntax show suspicious-control-flow-detection counts [slot *slotNumber*] [delta] [*filter*]

Release Information Command introduced in JunosE Release 7.3.0.

Description Displays statistics for the suspicious flow control detection system.

Options
- delta—Displays statistics for the current baseline
- *slotNumber*—Number of the slot
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show suspicious-control-flow-detection flows

Syntax show suspicious-control-flow-detection flows [slot *slotNumber*] [*filter*]

Release Information Command introduced in JunosE Release 7.3.0.

Description Displays suspicious flows.

Options
- *slotNumber*—Number of the slot
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show suspicious-control-flow-detection info

Syntax show suspicious-control-flow-detection info [slot *slotNumber*] [brief] [delta] [*filter*]

Release Information Command introduced in JunosE Release 7.3.0.

Description Displays information about the suspicious flow control detection system.

Options

- brief—Displays only suspicious information
- delta—Displays statistics for the current baseline
- *slotNumber*—Number of the slot for which information is displayed
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show suspicious-control-flow-detection protocol

Syntax show suspicious-control-flow-detection protocol [*protocolValue*] [*filter*]

Release Information Command introduced in JunosE Release 7.3.0.

Description Displays suspicious control flow information for a specific protocol. If no protocol is specified, information is displayed for all protocols.

Options

- *protocolValue*—Name of the protocol. For details about the values that are displayed for this attribute in the CLI interface, see the *Protocol Mapping* section in Understanding DoS Protection. The following names of protocols apply to the *protocolValue* variable that is available with this command, in addition to the list of protocol names that are described in the *Protocol Mapping* section.
  - EthernetFcBasedPppTerminate—Ethernet forwarding controller-based PPP Fast Reconnect
  - EthernetOam—Ethernet OAM packet
  - IpFastBfd—IP fast BFD
  - IpLocalFastBfd—IP local fast BFD
  - IpRouteNull0Interface—IP route to null 0 interface
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show tacacs

Syntax show tacacs [statistics | delta] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays general or detailed TACACS+ information.

Options
- statistics—Specifies TACACS+ server statistics
- delta—Displays baselined statistics
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show tcp ack-rst-and-syn

Syntax show [ip] tcp ack-rst-and-syn [vrf *vrfName*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0
ip keyword made optional in JunosE Release 7.2.0.

Description Displays the status of TCP ACK, RST, and SYN protection.

Options
- *vrfName*—Name of the VRF
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show tcp path-mtu-discovery

Syntax show [ip] tcp path-mtu-discovery [vrf *vrfName*]

Release Information Command introduced before JunosE Release 7.1.0
ip keyword made optional in JunosE Release 7.2.0.

Description Displays the path MTU information.

Options
- *vrfName*—Name of the VRF

Mode Privileged Exec, User Exec

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show tcp paws

Syntax show [ip] tcp paws [vrf *vrfName*]

Release Information Command introduced in JunosE Release 7.1.0
ip keyword made optional in JunosE Release 7.2.0.

Description Displays TCP PAWS status information.

Options
- *vrfName*—Displays the PAWS information associated with a VRF

Mode Privileged Exec, User Exec

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show tcp resequence-buffers

Syntax show [ip] tcp resequence-buffers [vrf *vrfName*]

Release Information Command introduced before JunosE Release 7.1.0
ip keyword made optional in JunosE Release 7.2.0.

Description Displays the configuration, current per-VR and per-router state of the TCP resequencing buffer management functions.

Options
- *vrfName*—Name of the VRF

Mode Privileged Exec, User Exec

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show tcp statistics

Syntax show [ip | ipv6] tcp statistics [vrf vrfName] [brief | detailed | diagnostic] [delta] [local-address *localAddress*] [local-port *localPort*] [remote-address *remoteAddress*] [remote-port *remotePort*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
ip keyword made optional in JunosE Release 7.2.0.
ipv6 keyword added in JunosE Release 7.2.0.

Description Displays all TCP statistics or only IPv4 or IPv6 TCP statistics.

NOTE: Order is important when you enter options for this command. Even though you can skip options, you cannot enter options out of sequence.

Options

- ip—Displays only IPv4 TCP statistics
- ipv6—Displays only IPv6 TCP statistics
- *vrfName*—Name of the VRF
- brief—Displays a brief summary of each TCP connection
- detailed—Displays detailed statistics for each TCP connection
- diagnostic—Displays diagnostic information collected on all TCP connections, including per-connection logging information
- delta—Displays baselined statistics
- *localAddress*—Local IPv4 or IPv6 address for which session statistics are displayed
- *localPort*—Local port number for which session statistics are displayed
- *remoteAddress*—Remote IP v4 or IPv6 address for which session statistics are displayed
- *remotePort*—Remote port number for which session statistics are displayed
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show tech-support

Syntax show tech-support [[*description*] | [slot *slotNumber* [connection { reliable | fast }]]] [*filter*] | defunct-commands]

Release Information Command introduced before JunosE Release 7.1.0.
slot and connection keywords added in JunosE Release 9.1.0.

Description Displays technical support information for use in troubleshooting the router. Runs various commands to collect the information. By default, this command requires level 15 access.

Options

- *description*—Any string you wish to include that describes the problem that prompted you to run the command
- *slotNumber*—Number of a selected slot in the router
- connection—Specifies the connection type:
  - reliable—Use a reliable connection with a slower response time, which is the default
  - fast—Use a less reliable connection with a faster response time, which could be unsuccessful for certain conditions
- *filter*—See Filtering show Commands on page 4
- defunct-commands—Displays commands that hang the system and cause the commands to be ignored until the hang condition for that command clears; clearing the hang condition can require a reboot of the router

Mode Privileged Exec

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show telnet

Syntax show telnet

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays telnet daemons.

Mode Privileged Exec

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show terminal

Syntax show terminal [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about terminal configuration settings for the current terminal line.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show terminate-code

Syntax show terminate-code { *application* [*terminateReason* | *translationApplication*] | *translationApplication* [*terminateCode*] } [*filter*]

Release Information Command introduced in JunosE Release 7.3.0.

Description Displays information about the current mappings of application terminate reasons to standards-based terminate codes.

Options

- *application*— Application; AAA, L2TP, PPP, or RADIUS client
- *terminateReason*—Reason that the subscriber's session was terminated
- *translationApplication*—Application whose terminate code is used for the mapping; for example, RADIUS
- *terminateCode*—Code used by the translation application to identify the terminate reason; for example, a RADIUS Acct-Terminate-Cause code
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show timing

Syntax show timing [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays router timing settings and operational status.

Options
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show track

Syntax show track *objectName* [*filter*]

Release Information Command introduced in JunosE Release 7.2.0.

Description Displays tracking details for the object you specify.

Options
- *objectName*—Name of the IPv4 prefix object
- *filter*—See Filtering show Commands on page 4

Mode Global Configuration

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show track brief

Syntax show track brief

Release Information Command introduced in JunosE Release 7.2.0.

Description Displays a one-line summary of all IPv4 prefix objects being tracked.

Mode Global Configuration

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show traffic-class

Syntax show traffic-class [*trafficClassName*] [brief | references] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about traffic class(es) configured on the E Series router.

Options
- *trafficClassName*—Name of the traffic class
- brief—Displays information in a condensed format
- references—Displays QoS profiles and traffic class groups that reference this profile
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring Service Levels with Traffic Classes

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show traffic-class-group

Syntax show traffic-class-group
[*trafficClassGroupName* [slot [*trafficClassGroupSlotNumber*]]]
[brief | references] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about a traffic class group configured on the E Series router.

Options
- *trafficClassGroupName*—Name of the traffic class group
- *trafficClassGroupSlotNumber*—Number of the slot associated with the group, in the range 0–17
- brief—Displays information in a condensed format
- references—Displays QoS profiles and traffic class groups that reference this profile
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring Service Levels with Traffic-Class Groups

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show tunnel-server

Syntax show tunnel-server [config] [*interfaceSpecifier*] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays status and configuration information for dedicated and shared tunnel-server ports configured on the router. You can display information for a specific tunnel-server port or for all tunnel-server ports.

Options

- config—Displays configuration information about available and provisioned tunnel-service interfaces on each port, and indicates whether modules that support dedicated or shared tunnel-server ports are currently installed in the router
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5 *;* port number specified must have the dedicated or shared tunnel-server port assigned to it
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show users

Syntax show users [detail] [all] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays information about users of the vty lines.

Options
- detail—Displays detailed information
- all—Displays information about all lines
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show utilization

Syntax show utilization [detail] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
detail keyword added in JunosE Release 8.0.0.

Description Displays information about the resources that the installed modules consume and forces the router to release available memory on the SRP module. The **detail** keyword displays additional information about the average CPU utilization percentage calculated over 5-second, 1-minute, and 5-minute intervals for each module installed in the router.

NOTE: When you issue this command, the router releases available memory on the SRP module immediately, but takes a few seconds to display the resources.

Options

- detail—Displays the average CPU utilization percentage for 5-second, 1-minute, and 5-minute intervals for each installed module
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show version

Syntax show version [all] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays armed and running releases for every slot in the router and also displays the operational status of the SRP module and line modules for all E Series routers. The **all** keyword displays the operational status of the IOAs for the E120 router and the E320 router.

Options
- all—Displays the version of the SRP modules, line modules, and IOAs on the E120 and E320 routers
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show virtual-router

Syntax show virtual-router [*routerName*] [summary] [detail] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Displays virtual routers configured on the router.

Options

- *routerName*—Name of the virtual router
- summary—Displays only the total number of virtual routers and the total number of VRF instances
- detail—Displays detailed information about the virtual router
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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show vlan bulk-config

Syntax show vlan bulk-config [{ *interfaceType* } *interfaceSpecifier*]
[name *bulkConfigName*] [*filter*]

Release Information Command introduced in JunosE Release 7.3.0.

Description Displays information, including base profile assignments, for the bulk-configured VLAN ranges on a VLAN subinterface. You can display information for all VLAN ranges on the router, for all VLAN ranges on a particular VLAN subinterface, or for the VLAN range associated with a particular bulk configuration name.

Options

- *interfaceType*—One of the following interface types listed in "Interface Types and Specifiers" on page 5:
  - fastEthernet
  - gigabitEthernet
  - tenGigabitEthernet
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *bulkConfigName*—Name associated with a VLAN range, as specified in the **vlan bulk-config** command
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show vlan profile

Syntax show vlan [bulk-config] profile [{ *interfaceType* } *interfaceSpecifier*] override [*filter*]

Release Information Command introduced in JunosE Release 7.1.0.
bulk-config keyword and *interfaceType* variable added in JunosE Release 7.3.0.

Description Displays information about overriding profile assignments for the bulk-configured VLAN ranges on a VLAN subinterface. Information about base profile assignments is not displayed. You can display information for all VLAN ranges on the router, for all VLAN ranges on a particular VLAN subinterface, or for the VLAN range associated with a particular bulk configuration name.

Options

- bulk-config—Displays information about bulk-configured ranges
- *interfaceType*—One of the following interface types listed in "Interface Types and Specifiers" on page 5:
  - fastEthernet
  - gigabitEthernet
  - tenGigabitEthernet
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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show vlan subinterface

Syntax

show vlan subinterface [*interfaceType interfaceSpecifier*] [mac-address] [*filter*]

To display summary information:

show vlan subinterface summary

To display by VLAN ID or S-VLAN ID:

show vlan subinterface { svlan *s-vlanIdValue* | vlan } { *vlanIdValue* | any }
[mac-address] [*filter*]

To display VLAN subinterfaces that are created based on agent-circuit-identifier information:

show vlan subinterface [*interfaceType interfaceSpecifier* | svlan *s-vlanIdValue*]
agent-circuit-identifier [*filter*]

Release Information

Command introduced before JunosE Release 7.1.0.
s-vlan keyword and *s-vlanIdValue* variable added in JunosE Release 7.1.0.
vlan keyword and *vlanIdValue* variable added in JunosE Release 7.1.0.
any and **mac-address** keywords added in JunosE Release 7.1.0.
agent-circuit-identifier keyword added in JunosE Release 7.3.0.

Description

Displays configuration and status information for a specified VLAN subinterface or for all VLAN subinterfaces configured on the router. Alternatively, you can use the **summary** keyword to display only brief summary information for all VLAN interfaces. You can also display information about the VLAN IDs or S-VLAN IDs for the specified VLAN subinterface.

Options

- *interfaceType*—One of the following interface types listed in "Interface Types and Specifiers" on page 5:
  - atm
  - fastEthernet
  - gigabitEthernet
  - lag
  - tenGigabitEthernet
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- mac-address—Displays VLAN subinterfaces configured with unique MAC addresses
- *filter*—See Filtering show Commands on page 4
- summary—Displays only the total number of VLAN subinterfaces and the total number of VLAN major interfaces configured on the router
- *s-vlanIdValue*—S-VLAN ID number in the range 0–4095

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- *vlanIdValue*—VLAN ID number in the range 0–4095
- any—Specifies the VLAN ID as a wildcard
- agent-circuit-identifier—Specifies VLAN subinterfaces that are created based on agent-circuit-identifier information

Mode Privileged Exec, User Exec

Related Documentation
- Monitoring VLAN Statistics

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show vpls connections

Syntax show vpls connections [state up | state down | details | bridge-group *vplsName* | remote-site *siteId*]* [*filter*]

Release Information Command introduced in JunosE Release 7.2.0.

Description Displays connection information for a specified VPLS instance configured on the router, or for all VPLS instances configured on the router. You can display detailed configuration and status information for one or for all VPLS connections on the router, or you can display information only for VPLS connections with a specified operational state (up or down) or remote site ID.

Options

- state up—Displays information only for operational (up) VPLS connections
- state down—Displays information only for nonoperational (down) VPLS connections
- details—Displays detailed configuration and status information for VPLS connections
- *vplsName*—Name of a specific VPLS instance created with the bridge vpls transport-virtual-router command; if you omit the **bridge-group** keyword and VPLS instance name, the command displays connection information for all VPLS instances configured on the router
- *siteId*—Integer, in the range 1–65535, that uniquely identifies the remote site for a VPLS instance; the site ID is configured with the bridge vpls site-name site-id command
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

Related Documentation

- Monitoring VPLS-Specific Settings

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shutdown

Syntax [no] shutdown

Release Information Command introduced before JunosE Release 7.1.0.

Description In Controller Configuration Mode, disables CT3, E3, SONET, and T3 controllers. These controllers are disabled by default. In Interface Configuration mode, disables Ethernet interfaces, the HDLC layer of serial interfaces, and the SONET layer of ATM or POS interfaces. These interfaces are enabled by default. In Subinterface Configuration mode, disables ATM 1483, Ethernet, Frame Relay, PPPoE, and VLAN subinterfaces. These subinterfaces are enabled by default. The **no** version restarts disabled controllers, interfaces, and subinterfaces.

Mode Controller Configuration, Interface Configuration, Subinterface Configuration

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single-shot-tunnel

Syntax [no] single-shot-tunnel

Release Information Command introduced in JunosE Release 7.2.0.

Description Configures the L2TP/IPsec tunnels associated with a particular L2TP host profile as single-shot tunnels. The underlying IPsec connection for a single-shot tunnel can carry no more than a single L2TP tunnel for the duration of its existence, and the L2TP tunnel can carry no more than a single L2TP session for the duration of its existence. The **no** version restores the default behavior for L2TP/IPsec tunnels, which disables the single-shot attribute.

NOTE: Although configuration of single-shot tunnels is more typically used with secure L2TP/IPsec tunnels, you can also configure single-shot tunnels for nonsecure L2TP tunnels that do *not* run over an IPsec transport connection.

Mode L2TP Destination Profile Host Configuration

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sleep

Syntax sleep *sleepFor*

Release Information Command introduced before JunosE Release 7.1.0.

Description Causes the CLI to pause for a specified period of time. There is no **no** version.

Options
- *sleepFor*—Number of seconds in the range 0–4294967295

Mode All modes

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slot accept

Syntax slot accept *slotNum* [*subsystem*]

Release Information Command introduced before JunosE Release 7.1.0.

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

Options

- *slotNum*—For ERX7xx models, a number in the range 0–6; for ERX14xx models, a number in the range 0–13; for the ERX310 router, a number in the range 1–2; for the E120 router, a number in the range 0–5; for the E320 router, a number in the range 0–16
- *subsystem*—Type of subsystem on the E120 and E320 routers; use when the specified *slotNumber* is a slot that contains an SRP module
  - srp—Indicates the SC on one or both SRP modules; specify this keyword to accept only the configuration of 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 accept only the configuration of an individual fabric slice

Mode Global Configuration

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slot disable

Syntax slot disable *slotNum* [*subsystem*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Disables the module installed in the specified slot. You cannot use this command on a slot that contains a primary SRP module. There is no **no** version.

Options

- *slotNum*—Number of the selected slot in the router; for ERX7xx models, a number in the range 0–6; for ERX14xx models, a number in the range 0–13; for the ERX310 router, a number in the range 1–2; for the E120 router, a number in the range 0–5; for the E320 router, a number in the range 0–16
- *subsystem*—Type of subsystem on the E120 and E320 routers; use when the specified *slotNumber* is a slot that contains an SRP module
  - srp—Indicates the SC on one or both SRP modules; specify this keyword to disable 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 disable only an individual fabric slice

Mode Global Configuration

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slot enable

Syntax slot enable *slotNum* [*subsystem*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables the module installed in the specified slot. You cannot use this command on a slot that contains a primary SRP module. There is no **no** version.

Options

- *slotNum*—Number of the selected slot in the router; for ERX7xx models, a number in the range 0–6; for ERX14xx models, a number in the range 0–13; for the ERX310 router, a number in the range 1–2; for the E120 router, a number in the range 0–5; for the E320 router, a number in the range 0–16
- *subsystem*—Type of subsystem on the E320 router; use when the specified *slotNumber* is a slot that contains an SRP module
  - srp—Indicates the SC on one or both SRP modules; specify this keyword to enable 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 enable only an individual fabric slice

Mode Global Configuration

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slot erase

Syntax slot erase *slotNum* [*subsystem*]

Release Information Command introduced before JunosE Release 7.1.0.

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

Options

- *slotNum*—Number of the selected slot in the router; for ERX7xx models, a number in the range 0–6; for ERX14xx models, a number in the range 0–13; for the ERX310 router, a number in the range 1–2; for the E120 router, a number in the range 0–5; for the E320 router, a number in the range 0–16
- *subsystem*—Type of subsystem on the E120 and E320 routers; use when the specified *slotNumber* is a slot that contains an SRP module
  - srp—Indicates the SC on one or both SRP modules; specify this keyword to erase only the configuration of 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 erase only the configuration of an individual fabric slice

Mode Global Configuration

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slot ignore-diagnostic-failure

Syntax [no] slot ignore-diagnostic-failure *slotNum*

Release Information Command introduced in JunosE Release 9.3.0.

Description Enables you to ignore diagnostics test failures on the line module or SRP. The **no** version returns you to the default allowing diagnostic test failures to occur.

Options

- *slotNum*—Number of the selected slot in the router; for ERX7xx models, a number in the range 0–6; for ERX14xx models, a number in the range 0–13; for the ERX310 router, a number in the range 1–2; for the E120 router, a number in the range 0–5; for the E320 router, a number in the range 0–16

Mode Global Configuration

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slot replace

Syntax slot replace *slotNum*

Release Information Command introduced in JunosE Release 9.1.0.

Description Enables you to replace an ES2 4G LM or an ES2 10G LM with a different type of module without erasing the interface configuration on the slot. You can use this command to replace these line modules if they both are paired with the ES2-S1 GE-8 IOA or the ES2-S1 Redund IOA installed. Issue this command after you install the new type of line module in the slot. There is no **no** version.

Options

- *slotNum*—Number of the selected slot in the router; for the E120 router, a number in the range 0–5; for the E320 router, a number in the range 0–5 or 11–16

Mode Global Configuration

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snmp-server

Syntax [no] snmp-server

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables the SNMP agent operation. The **no** version disables this operation.

Mode Global Configuration

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snmp-server clear secure-log

Syntax snmp-server clear secure-log

Release Information Command introduced in JunosE Release 8.0.0.

Description Clears SNMP secure logs, which are used by the JunosE Software packet mirroring feature. There is no **no** version.

Mode Global Configuration

Related Documentation
- Monitoring SNMP Secure Audit Logs

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snmp-server community

Syntax snmp-server community *commString* [view *viewName*] [*priv*] [*accessListName*]

no snmp-server community *commString*

Release Information Command introduced before JunosE Release 7.1.0.
view keyword and *viewName* variable added in JunosE Release 7.1.0.

Description Configures an authorized SNMP community and associates SNMPv1/v2c communities with SNMPv3 views. The **no** version removes an authorized community from the list of communities.

Options

- *commString*—Name of the SNMPv1/v2c community
- *viewName*—Name of the SNMPv3 view, which allows configuration using available dynamic views
- *priv*—Privileged Exec level: ro (read-only), rw (read-write), or admin (administrator)
- *accessListName*—Name of IP access list to filter SNMP clients

Mode Global Configuration

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snmp-server contact

Syntax snmp-server contact *text*

no snmp-server contact

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the router's contact information. The **no** version clears the router's contact information.

Options
- *text*—String that describes the router's contact person

Mode Global Configuration

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snmp-server enable traps

Syntax To enable and configure trap severity level on a global basis:

[no] snmp-server enable traps [*trapCategory* | snmp authentication]
[trapfilters *trapFilter*]

To specify the trap severity level on a per-category basis:

snmp-server enable traps { *trapCategory* | snmp authentication } per-category-trapFilters *trapFilter*

Release Information Command introduced before JunosE Release 7.1.0.
ip keyword added in JunosE Release 7.1.0.
packetMirror keyword added in JunosE Release 7.2.0.
per-category-trapFilters keyword added in JunosE Release 9.3.0.
ospfv3 trap category added in JunosE Release 13.2.0

Description Enables and configures global and category-level SNMP trap generation. The **no** version disables SNMP trap generation globally. There is no **no** version for the command to specify the trap severity level on a per-category basis.

Options

- *trapCategory*—SNMP trap category
  - addrPool—Local address pool traps
  - atmPing—E Series router proprietary ATM ping traps
  - bfdmib—BFD MIB traps
  - bgp—BGP state change traps
  - bulkstats—Bulkstats file full and nearly full traps
  - cliSecurityAlert—Security alerts traps
  - dhcp—DHCP traps
  - dismanEvent—Distributed management (disman) event traps
  - dosProtectionPlatform—DoS protection platform traps
  - dvmrp—DVMRP traps
  - dvmrpProp—E Series router proprietary DVMRP traps
  - environment—Power, temperature, fan, and memory utilization traps
  - fileXfer—File transfer status change traps
  - haRedundancy—High availability and redundancy traps
  - inventory—Router inventory and status traps
  - ip—Internet Protocol traps
  - ldp—LDP traps

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  - link—SNMP linkUp and linkDown traps
  - log—System log capacity traps
  - mobileIpv4—Mobile IPv4 traps
  - mplste—Mplste traps
  - mrouter—Mrouter traps
  - ntp—E Series router proprietary traps
  - ospf—OSPF traps
  - ospfv3—OSPFv3 traps
  - packetMirror—Secure packet mirroring traps; visible only if packet mirroring is enabled
  - pim—PIM traps
  - ping—Ping operation traps (in disman remops MIB)
  - radius—RADIUS authentication and authorization servers
  - routeTable—Maximum route limit and warning threshold traps; when this trap is generated, the actual value of the exceeded warning threshold is displayed
  - sonet—SONET traps
  - snmp—SNMP coldStart, warmStart, link, and authenticationFailure traps
  - traceroute—Traceroute operation traps (in disman remops MIB)
  - vrrp—VRRP traps
- snmp—Specifies the SNMP coldStart, warmStart, and authenticationFailure traps
- authentication—Specifies the SNMP authenticationFailure trap
- *trapFilters*—Specifies the trap severity level at a global level; if the per-category trap severity level is not set for a particular category, this setting is applied to that category
- *trapFilter*—Minimum severity level for filtering traps at a global level or for a specified category
  - emergency—Severity level 0
  - alert—Severity level 1
  - critical—Severity level 2
  - error—Severity level 3
  - warning—Severity level 4
  - notice—Severity level 5
  - informational—Severity level 6
  - debug—Severity level 7

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- per-category-trapFilters—Specifies the trap severity level for a particular category; this setting overrides the severity level set at the global level for this category
- *trapFilter*—Minimum severity level for filtering traps for the specified category

Mode Global Configuration

Related Documentation
- Monitoring SNMP Secure Packet Mirroring Traps

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snmp-server group

Syntax snmp-server group *groupName securityModel authenticationLevel* [read *readView*] [write *writeView*] [notify *notifyView*] [*storageType*]

no snmp-server group *groupName securityModel authenticationLevel*

Release Information Command introduced in JunosE Release 7.1.0.

Description Dynamically configures an SNMP server group. The **no** version removes the dynamically created group.

NOTE: **You must access the CLI at privilege level 15 to view or use this command.**

Options

- *groupName*—Name of the SNMPv3 group
- *securityModel*—Security model
  - v1—SNMPv1
  - v2c—SNMPv2c
  - usm—SNMPv3
- *authenticationLevel*—Method for authentication and privacy
  - none—No authentication and no privacy
  - auth—Authentication only
  - priv—Authentication and privacy
- *readView*—Name of the view for read access; the default is no access
- *writeView*—Name of the view for write access; the default is no access
- *notifyView*—Name of the view for notification; the default is no access
- *storageType*—Storage type
  - volatile—Loses contents on warm or cold start
  - nonvolatile—Preserves contents across warm or cold start. This is the default.

Mode Global Configuration

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snmp-server host

Syntax To specify the SNMP version, community, UDP port, trap category and trap severity:

snmp-server host *ipAddress* [version *ver*] *securityString* [udp-port *port*]
[*trapCategory*]* [trapFilters *trapFilter*]

no snmp-server host *ipAddress*

To specify the ping timeout and trap queue:

snmp-server host *ipAddress* pingTimeOut *timeOutValue*
[trapQueue { drainRate *queueDrainRate* | full *queueFull* |
size *queueSize* }
[drainRate *queueDrainRate* | full *queueFull* | size *queueSize*]*]

snmp-server host *ipAddress* trapQueue
{ drainRate *queueDrainRate* | full *queueFull* | size *queueSize* }
[drainRate *queueDrainRate* | full *queueFull* | size *queueSize*]*
[pingTimeOut *timeOutValue*]

no snmp-server host *ipAddress* { pingTimeOut | trapQueue { drainRate | full | size } }

Release Information Command introduced before JunosE Release 7.1.0.
ip keyword added in JunosE Release 7.1.0.
packetMirror keyword added in JunosE Release 7.2.0.

Description Configures one or more hosts to receive an SNMP trap. The **no** version removes the specified host from the list of recipients.

Options

- *ipAddress*—IP address of the SNMP trap recipient
- *ver*—SNMP protocol version for traps sent to host; one of the following values: v1, v2c, or v3
- *securityString*—SNMP community string
- *port*—UDP port number of SNMP trap recipient
- *trapCategory*—SNMP trap category
  - addrPool—Local address pool traps
  - atmPing—E Series router proprietary ATM ping traps
  - bfdmib—BFD MIB traps
  - bgp—BGP state change traps
  - bulkstats—Bulkstats file full and nearly full traps
  - cliSecurityAlert—Security alerts traps
  - dosProtectionPlatform—DoS protection platform traps
  - dvmrp—DVMRP traps

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  - dvmrpUni—E Series router proprietary DVMRP traps
  - environment—Power/temperature/fan traps
  - fileXfer—File transfer status change traps
  - inventory—Router inventory/status traps
  - ip—Internet Protocol traps
  - ldp—LDP traps
  - link—SNMP linkUp/linkDown traps
  - log—System log capacity traps
  - mobileIpv4—Mobile IPv4 traps
  - mplste—Mplste traps
  - mrouter—Mrouter traps
  - packetMirror—Secure packet mirroring traps; visible only if packet mirroring is enabled
  - ospf—OSPF traps
  - ping—Ping operation traps (in disman remops MIB)
  - radius—RADIUS traps
  - snmp—SNMP coldstart, warmstart, link, authenticationFailure traps
  - traceroute—Traceroute operation traps (in disman remops MIB)
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line
- *trapFilter*—Minimum severity level for filtering traps sent to this host
  - alert—Severity level 1
  - critical—Severity level 2
  - debug—Severity level 7
  - emergency—Severity level 0
  - error—Severity level 3
  - informational—Severity level 6
  - notice—Severity level 5
  - warning—Severity level 4
- *timeOutValue*—Ping timeout in minutes, in the range 1–90; default value is 1
- trapQueue—Configures the SNMP trap queue for traps sent to this host
- *queueDrainRate*—Maximum number of traps per second to be sent to the host, in the range 0–2147483647; default value is 0. By default, there is no limit on the number of traps sent per second to the host.
- *queueFull*—Method used to drop traps when the trap queue is full

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  - dropFirstIn—Drops the oldest trap in the queue
  - dropLastIn—Drops the most recent trap added to the queue
- *queueSize*—Maximum number of traps to be kept in the trap queue, in the range 32–214748364; default value is 32

Mode Global Configuration

Related Documentation
- Monitoring SNMP Secure Packet Mirroring Traps

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snmp-server interfaces compress

Syntax [no] snmp-server interfaces compress [*interfaceLayer*]* table-type *TableType*

Release Information Command introduced before JunosE Release 7.1.0.
The **table-type** keyword added in JunosE Release 10.2.0.

Description Removes a set of sublayers from the ifTable, the ifStackTable, and the ipAddrTable. You can enter this command multiple times to remove multiple interfaces. By specifying a table type, you can restrict interface compression only to the specified table types in the SNMP interface configuration. The **no** version negates the compression.

Options

- *interfaceLayer*—Interface layer that you want to remove from the ifTable, the ifStackTable, and the ipAddrTable. If you do not specify an interface layer, the router removes the following interface layers:
  - ip
  - ppp
  - ethernetSubinterface
  - hdlc
  - pppoeInterface
  - ipLoopback
  - ipVirtual
  - pppLinkInterface
  - slepInterface/ciscoHdlc
- *TableType*—Table type on the SNMP interface configuration to which you want to limit the interface compression. The supported table types are **interface-table** and **interface-stack-table**.
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Global Configuration

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snmp-server interfaces compress-restriction

Syntax [no] snmp-server interfaces compress-restriction ifAdminStatusDown

Release Information Command introduced before JunosE Release 7.1.0.

Description Excludes interfaces from the ifTable, the ifStackTable, and the ipAddrTable if the ifAdminStatus of the interfaces is down. The **no** version negates the restriction.

Mode Global Configuration

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snmp-server interfaces description-format

Syntax [no] snmp-server interfaces description-format { common | legacy | proprietary }

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the encoding scheme of the ifDescr and ifName objects. The **no** version returns the encoding method to the proprietary encoding scheme.

Options

- common—Sets the encoding scheme to the conventional industry method, and provides compatibility with software that uses the industry encoding scheme
- legacy—Sets the encoding scheme for legacy E Series routers
- proprietary—Sets the encoding scheme to a method that is proprietary to the E Series router

Mode Global Configuration

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snmp-server interfaces rfc1213

Syntax snmp-server interfaces rfc1213 [*maxIfIndex*] [*maxIfNumber*]

[no] snmp-server interfaces rfc1213

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies that the router bases numbering in the IfTable on RFC 1213. The **no** version restores the default value, which is to use RFC 1573 style numbering in interface tables.

CAUTION: Reducing the value of the *maxIfIndex*, the *maxIfNumber*, or both, causes the router to automatically reboot to factory default settings.

The router does *not* reboot to factory defaults if you:

Options

- Increase the values of *maxIfIndex* and/or *maxIfNumber*.
- Issue a **no** version of the **snmp-server interfaces rfc1213** command when the router is already set up for RFC 1573 style numbering.
- Enter the **snmp-server interfaces rfc1213** command with the same options multiple times.
- *maxIfIndex*—Maximum value of index numbers in the interface tables, in the range 100–65535; default value is 65535
- *maxIfNumber*—Maximum number of interfaces in each interface table, in the range 100–65535; default value is 65535

Mode Global Configuration

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snmp-server location

Syntax snmp-server location *text*

no snmp-server location

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets information about the router's location. The **no** version clears this information.

Options
- *text*—String that describes the router's location

Mode Global Configuration

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snmp-server management-event

Syntax [no] snmp-server management-event

Release Information Command introduced before JunosE Release 7.1.0.

Description Launches the SNMP server event manager. The **no** version removes all configuration from the event manager.

Mode Global Configuration

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snmp-server notificationLog ageOut

Syntax snmp-server notificationLog ageOut *ageOut*

no snmp-server notificationLog ageOut

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies when the notification log ages out. The **no** version returns the ageout limit to the default value, 1440 minutes.

Options
- *ageOut*—Notification log ageout in minutes, in the range 0–214748364; default value is 1440

Mode Global Configuration

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snmp-server notificationLog entryLimit

Syntax snmp-server notificationLog entryLimit *entryLimit*

no snmp-server notificationLog entryLimit

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the maximum number of notifications kept. The **no** version returns the limit to the default value, 500.

Options

- *entryLimit*—Maximum number of notifications kept, in the range 1–500; default value is 500

NOTE: You can allocate up to 500 notifications across all virtual routers on the router. As you allocate entry limits for virtual routers, the available range changes to reflect the number of notifications that you have allocated.

Mode Global Configuration

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snmp-server notificationLog log

Syntax [no] snmp-server notificationLog log *ipAddress* [adminStatus] [includeVarbinds]

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the SNMP notification log tables. The **no** version removes the notification log configuration.

Options

- *ipAddress*—IP address of the host for which the notification logs are kept
- adminStatus—Enables administrative status
- includeVarbinds—Specifies that log names and log indexes are included in the trap's variable bindings

Mode Global Configuration

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snmp-server packetsize

Syntax snmp-server packetsize *byteCount*

no snmp-server packetsize

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the maximum SNMP packet size in bytes. The **no** version restores the default value.

Options
- *byteCount*—Size of an SNMP packet in bytes

Mode Global Configuration

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snmp-server secure-log

Syntax [no] snmp-server secure-log

Release Information Command introduced in JunosE Release 7.2.0.

Description Enables logging of trap data in secure logs, which are used by the JunosE Software's packet mirroring feature. The command configuration is retained across a warm restart operation by storing the configuration in the non-volatile memory. The **no** version disables secure logs.

NOTE: The trap data is not preserved across the reboot because secure logs are not stored in the non-volatile memory.

Mode Global Configuration

Related Documentation

- Monitoring SNMP Secure Packet Mirroring Traps

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snmp-server security

Syntax snmp-server security { no-access | read | read-write }

no snmp-server security

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies a security access level for the SNMP agent. The **no** version returns the SNMP security level to its default, no access.

Options
- no-access—Specifies that no other virtual routers can access this router for read or write actions
- read—Specifies that other virtual routers can access this router for read only actions
- read-write—Specifies that other virtual routers can access this router for both read and write actions

Mode Global Configuration

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snmp-server trap-proxy

Syntax [no] snmp-server trap-proxy { enable | disable }

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables or disables the SNMP trap proxy. The **no** version disables the SNMP trap proxy.

Options
- enable—Enables SNMP trap proxy
- disable—Disables SNMP trap proxy

Mode Global Configuration

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snmp-server trap-source

Syntax snmp-server trap-source *interfaceType interfaceSpecifier*

no snmp-server trap-source

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the interface whose IP address is the source address for SNMP traps. The **no** version disables this feature.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5

Mode Global Configuration

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snmp-server user

Syntax snmp-server user *userName* group *groupName*
[authentication *authType authKey* [privacy des *privKey*]]

no snmp-server user *userName*

Release Information Command introduced before JunosE Release 7.1.0.

Description Creates and modifies SNMPv3 users. The **no** version removes the user.

Options

- *userName*—Name of the SNMPv3 user
- *groupName*—Name of the group to which the user belongs
  - one of the three predefined groups (admin, public, or private) or a custom group created with SNMPv3 commands
- *authType*—One of the following authentication protocols:
  - md5—HMAC-MD5-96
  - sha—HMAC-SHA-96
- *authKey*—Password for the authentication procedure; use a 16-character password for HMAC-MD5-96 and a 20-character password for HMAC-SHA-96
- des—Specifies CBC-DES encryption algorithm for privacy
- *privKey*—Password for the privacy verification; use a 16-character password for CBC-DES

Mode Global Configuration

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snmp-server view

Syntax snmp-server view *viewName oidTree* [*viewType*] [*storageType*]

no snmp-server view *viewName oid-tree*

Release Information Command introduced in JunosE Release 7.1.0.

Description Dynamically configures an SNMP server view. The **no** version removes the dynamically created view.

NOTE: You must access the CLI at privilege level 15 to view or use this command.

Options

- *viewName*—SNMP dynamic view name
- *oidTree*—Name of the object identifier (OID) tree
- *viewType*—OID type
  - included—OID is included
  - excluded—OID is excluded
- *storageType*—Storage type
  - volatile—Loses contents on warm or cold start
  - nonvolatile—Preserves contents across warm or cold start. This is the default.

Mode Global Configuration

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snmpTrap

Syntax [no] snmpTrap

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables SNMP traps for DHCP local address pool utilization. You can set the maximum and minimum threshold values for local address pool utilization by using the warning command. The **no** version disables SNMP traps for local address pool utilization.

Mode DHCP Local Pool Configuration

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snmp trap frame-relay link-status

Syntax [no] snmp trap frame-relay link-status

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables processing of SNMP link status information about a Frame Relay major interface (if issued from Interface Configuration mode) or subinterface (if issued from Subinterface Configuration mode). The **no** version disables the processing of SNMP link status information.

Mode Interface Configuration, Subinterface Configuration

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snmp trap ip link-status

Syntax snmp trap ip link-status

no snmp trap ip

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables link status traps on an IP interface. The **no** version disables link status traps on an IP interface.

Mode Interface Configuration

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snmp trap link-status

Syntax [no] snmp trap link-status

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables processing of SNMP link status information about an interface. The **no** version disables the processing of SNMP link status information.

Mode Controller Configuration, Interface Configuration

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source-address

Syntax source-address *sourceAddress*

no source-address

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies a source IP address for the LAC tunnel endpoint. The **no** version removes the source address.

Options
- *sourceAddress*—Address of the local tunnel endpoint (the LAC); can be up to 32 characters (no spaces)

Mode Domain Map Tunnel Configuration, Tunnel Group Tunnel Configuration

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speed

Syntax For console sessions:

speed *baudRate*

no speed

For Ethernet interfaces on line modules:

speed *speedValue*

no speed

Release Information Command introduced before JunosE Release 7.1.0.

Description When used from Line Configuration mode, sets the speed for the current and all new console sessions immediately. The **no** version reverts to the default value, 9600 bps.

When used from Interface Configuration mode, specifies the line speed for an Ethernet interface. This command works with the **duplex** 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, automatically negotiate or 100 Mbps (FE-8 SFP I/O module only). This command is not available for the Ethernet interface on the SRP module.

Options

- *baudRate*—Terminal speed for the current console session; one of the following values: 2400, 4800, 9600, 14400, 19200, 28800, 38400, 57600, 115200
- *speedValue*—Line speed; one of the following values:
  - automatically negotiate—Specifies that the router negotiates the line speed with the remote device; not valid for the FE-8 SFP I/O module
  - 10—Specifies that the router uses a line speed of 10 Mbps on a Fast Ethernet interface; not valid for Gigabit Ethernet interfaces or the FE-8 SFP I/O module
  - 100—Specifies that the router uses a line speed of 100 Mbps on a Fast Ethernet interface; not valid for Gigabit Ethernet interfaces
  - 1000—Specifies that the router uses a line speed of 1000 Mbps on a Gigabit Ethernet interface; not valid for Fast Ethernet interfaces

Mode Interface Configuration, Line Configuration

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spf-interval

Syntax spf-interval [level-1 | level-2] *seconds*

no spf-interval [level-1 | level-2]

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the maximum wait time between two successive IS-IS shortest-path-first calculations. If you do not specify a level, the interval applies to both level 1 and level 2. The **no** version restores the default value, 5 seconds.

Options

- level-1—Specifies a level 1 SPF
- level-2—Specifies a level 2 SPF
- *seconds*—Maximum time between SPF calculations in the range 0–120 seconds; default value is 5

Mode Router Configuration

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split-horizon

Syntax [no] split-horizon

Release Information Command introduced before JunosE Release 7.1.0.

Description Controls the split horizon and poison reverse features for RIP remote neighbors. Split horizon is enabled by default; poison reverse routing updates are disabled by default. The **no** version disables the split horizon and enables poison reverse routing updates, which set the metric for routes originating on the interface to infinity to explicitly advertise that the network is unreachable, reducing the possibility of routing loops.

Mode Remote Neighbor Configuration

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srp switch

Syntax srp switch [[force] [*reason*]]

Release Information Command introduced before JunosE Release 7.1.0.

Description Switches from the primary SRP module to the standby. This command is equivalent to the redundancy force-switchover command with the **srp** option. There is no **no** version.

NOTE: When the high availability state is active, this command does not take effect until all transaction data, up to when you issue the command, has been mirrored to the standby SRP module. This behavior preserves legacy behavior that requires SRP modules to be synchronized before the switchover.

Options

- force—Prompts the user to confirm that the router should switch from the primary SRP module to the standby 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
- *reason*—Reason for the change

Mode Privileged Exec

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sscc address

Syntax sscc { primary | secondary | tertiary } address *ipAddress* [port *portNumber*]

no sscc { primary | secondary | tertiary } address [*ipAddress* [port *portNumber*]]

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the SRC client (formerly SSCC) with the IP addresses of the SRC servers and the ports on which the servers listen for activity. The **no** version removes the specified server (primary, secondary, or tertiary) from the list of SRC servers.

Options

- primary—Primary SRC server
- secondary—Secondary SRC server
- tertiary—Tertiary SRC server
- *ipAddress*—IP address of an SRC server
- *portNumber*—SRC server port number on which the server listens for activity; default port is 3288

Mode Global Configuration

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sscc connectivityTimer

Syntax sssc connectivityTimer *timervalue*

no sssc connectivityTimer *[timervalue]*

Release Information Command introduced in JunosE Release 14.2.0.

Description Specifies the time in seconds until which the rebooted router acting as an SRC client does not select an SRC server randomly and waits for establishing a connection with the primary SRC server. If the primary SRC server is not connected until the configured time period, the SRC client selects the SRC server that first established a connection with the SRC client. The **no** version restores the default behavior in which the SRC client selects its SRC server randomly from the primary, secondary, and tertiary SRC servers without waiting to establish a connection with the primary SRC server. In the default behavior, the first TCP connection is initiated toward the primary SRC server and the SRC server that first establishes a connection with the SRC client is selected by the SRC client.

Options

- *timervalue*—Time interval until which the rebooted SRC client waits for the primary SRC server to establish a connection with the SRC client. The range for the value is 0 through 300 seconds. The default value is 0 seconds, which denotes that the SRC server is selected randomly.

Mode Global Configuration

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sscc enable

Syntax sscc enable cops-pr

no sscc enable

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables the SRC client's COPS support, which is used when the SRC service application engine communicates with a policy decision point, such as the SRC application. The **no** version disables COPS support.

Options
- cops-pr—Enables COPS-policy provisioning operation.

Mode Global Configuration

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sscc option

Syntax sscc option { user-ip-mask-override | send-calling-station-id | radius-default-value | radius-overridden-value | send-local-qos-profile-config | send-lac-nas-ip | send-lac-nas-port }

no sscc option

Release Information Command introduced in JunosE Release 10.2.0.
send-calling-station-id keyword added in JunosE Release 11.1.0.
send-local-qos-profile-config keyword added in JunosE Release 11.2.0.
send-lac-nas-ip and **send-lac-nas-port** keyword added in JunosE Release 12.2.0.
radius-default-value and **radius-overridden-value** keywords added in JunosE Release 13.0.0.

Description When used with the **user-ip-mask-override** option, enables the user IP address mask to be sent to the Policy Decision Point (PDP) in place of the interface IP address mask for a virtual router. If user IP address mask is not available, then the interface IP address mask is sent. The **no** version disables user IP address mask override.

When used with the **send-calling-station-id** option, enables the calling station ID to be sent to the PDP for a virtual router. When used with the **radius-default-value** option, sends the default calling station ID to the PDP. When used with the **radius-overridden-value** option, sends the overridden calling station ID to the PDP. The **radius-overridden-value** option should be configured after configuring the **radius calling-station-format** command. If either the **radius calling-station-format** command or **radius override calling-station-id remote-circuit-id** command is not configured, then **radius-default-value** will be sent to the PDP instead of **radius-overridden-value**. The **no** version disables the option to send the calling station ID.

When used with the **send-local-qos-profile-config** option, enables the local QoS profile attachment information to be sent to the PDP for a virtual router. The **no** version disables the option to send the local QoS profile attachment information.

When used with the **send-lac-nas-ip** option, enables the LAC side NAS-IP address information to be sent to the PDP for a virtual router. The **no** version disables the option to send the NAS-IP address information.

When used with the **send-lac-nas-port** option, enables the LAC side NAS-Port information to be sent to the PDP for a virtual router. The **no** version disables the option to send the LAC side NAS-Port information.

Options

- user-ip-mask-override—Enables the user IP address mask to be sent to PDP
- send-calling-station-id—Enables the calling station ID to be sent to PDP
- radius-default-value—Enables the default calling station ID to be sent to the PDP
- radius-overridden-value—Enables the overridden calling station ID to be sent to the PDP

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- send-local-qos-profile-config—Enables the local QoS profile attachment information to be sent to the PDP
- send-lac-nas-ip—Enables the LAC side NAS-IP address information to be sent to the PDP
- send-lac-nas-port—Enables the LAC side NAS-Port information to be sent to the PDP

Mode Global Configuration

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sscc protocol ipv6

Syntax [no] sscc protocol ipv6

Release Information Command introduced in JunosE Release 8.1.0.

Description Configures the SRC client to support policy and QoS configuration on IPv6 interfaces. The **no** version disables IPv6 support.

Mode Global Configuration

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sscc protocol lac

Syntax [no] sscc protocol lac

Release Information Command introduced in JunosE Release 11.0.0.

Description Configures the SRC client to support policy and QoS configuration on L2TP interfaces on a virtual router that functions as an L2TP access concentrator (LAC) on one side of an L2TP tunnel. The **no** version disables SRC client support for L2TP LAC interfaces.

NOTE: You must enable the SRC client by using the **sscc enable cops-pr** command on the virtual router to be able to configure policy and QoS support for L2TP LAC interfaces by the COPS messages.

Mode Global Configuration

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sscc restart

Syntax sscc restart [clean-state]

Release Information Command introduced in JunosE Release 11.0.0.

Description Forces the router to restart a COPS connection to, and resynchronize with, the SRC software, without removing the SRC client. The **no sscc enable cops** command removes the SRC client. There is no **no** version.

Options
- clean-state—Enables a complex restart where the SRC client closes the connection and clears the Policy Information Base (PIB) structures and tables. Then the SRC client connects to the SRC software, which requests full synchronization, which restores correct policy and QoS provisioning.

Mode Privileged Exec

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sscc retryTimer

Syntax sscc retryTimer *timer*

no sscc retryTimer [*timer*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the delay period during which the SRC client (formerly SSCC) waits for a response from an SRC (formerly SDX or SSC) server. When the timer expires, the client submits the request to the next server and waits again for the timer to expire. The request is sent to each timer in rotation until there is a response. The **no** version restores the default delay period, 90 seconds.

Options
- *timer*—Time in the range 5–300 seconds

Mode Global Configuration

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sscc sourceAddress

Syntax sscc sourceAddress *ipAddress*

no sscc sourceAddress [*ipAddress*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies a fixed source address for the TCP/COPS connection. The **no** version removes the address specification.

Options
- *ipAddress*—Source (or local) IP address of the TCP/COPS connection

Mode Global Configuration

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sscc sourceInterface

Syntax sscc sourceInterface *interfaceType interfaceSpecifier*

no sscc sourceInterface [*interfaceType interfaceSpecifier*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies a fixed source (local) interface for the TCP/COPS connection. The **no** version removes the interface.

Options

- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5

Mode Global Configuration

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sscc transportRouter

Syntax sscc transportRouter *name*

no sscc transportRouter [*name*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the router on which the TCP/COPS connection is to be established. The **no** version removes the SRC client transport router.

NOTE: If a COPS connection is in the open state (displayed in the "The Connection State is" field in the output of the **show sscc info** command), the router that you configure on which the COPS connection is to be established by using the **sscc transportRouter** *name* command does not take effect.

Options

- *name*—Name of a transport router

Mode Global Configuration

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sscc update-policy-request enable

Syntax [no] sscc update-policy-request enable

Release Information Command introduced in JunosE Release 9.3.0.

Description Configures the router to collect updated DSL line rate parameters from an access node using the ANCP topology discovery message and transmit the information to the COPS server with corresponding COPS messages. If you enable this feature, the access node sends line rate parameters not only during connection establishment, but also whenever any of the line rate values changes after the connection is built. The **no** version restores the default, which disables line rate parameters to be sent to the COPS server.

NOTE: When you configure the **sscc update-policy-request enable** command, a warning message is displayed, prompting you to confirm whether you want to enable the router that functions as the SRC client to forcibly send updated line rate information parameters to the COPS server, which is running a release of SRC software earlier than Release 3.0.0 that is not compatible with the line rate message format.

Mode Global Configuration

Related Documentation

- Configuring the SRC Client
- Retrieval of DSL Line Rate Information from Access Nodes Overview

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statistics

Syntax statistics { time | volume-time }

no statistics

Release Information Command introduced in JunosE Release 7.2.0.

Description Enables statistics for the service session profile. The **no** version disables statistics for the service session profile.

Options
- time—Displays statistics for the time attribute
- volume-time—Displays statistics for both the volume and time attributes

Mode Service Session Profile Configuration

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statistics-profile

Syntax [no] statistics-profile *statisticsProfileName*

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures a statistics profile. The **no** version removes the named statistics profile.

Options
- *statisticsProfileName*—Name of the statistics profile

Mode Global Configuration

Related Documentation
- Configuring Statistic Profiles for QoS
- Configuring Rate Statistics
- Configuring Event Statistics

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strict-priority

Syntax [no] strict-priority

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets strict-priority scheduling for the scheduler node. The **no** version deletes the strict priority setting.

Mode Scheduler Profile Configuration

Related Documentation
- Configuring Strict-Priority Scheduling

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strip-domain

Syntax strip-domain { enable | disable }

no strip-domain

Release Information Command introduced before JunosE Release 7.1.0.

Description Strips the domain name from the username before sending an access-request message to the RADIUS server. The domain name is the text after the last @ character. For example, xyz.com is the domain name of the following: fred@abc.com@xyz.com. To stop stripping the domain name, use the **disable** keyword. The **no** version resets the default, **disable**.

Options

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

Mode Domain Map Configuration

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subscriber

Syntax subscriber { bridgedEthernet | ip } { user | user-prefix } *userName*
domain *domainName* [{ password | password-prefix } *password*]
[no-authenticate]

no subscriber { bridgedEthernet | ip }

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures a local subscriber (when one cannot be obtained externally, as in PPP) on the E Series router to support authentication and configuration from the RADIUS server. The **no** version negates the command.

NOTE: If your router is running stateful SRP switchover (high availability), the use of this command to configure RADIUS authentication for subscribers on dynamic bridged Ethernet interfaces might suspend stateful SRP switchover on the router or prevent stateful SRP switchover from becoming active. You must use the subscriber management application to bypass this limitation.

Options

- bridgedEthernet—Specifies bridgedEthernet as the upper interface type
- ip—Specifies IP as the upper interface type
- user—Employs the username as specified
- user-prefix—Appends the interface physical location to the username. The router automatically postpends the physical location of the user to the username string. The username format is userName.slot.port.vpi.vci. The resulting username string is then used to authenticate with the RADIUS server.
- *userName*—RADIUS username
- *domainName*—Domain name
- password—Employs the password as specified
- password-prefix—Appends the interface physical location to the password. The router automatically postpends the physical location of the user to the password string. The password format is password.slot.port.vpi.vci. The resulting password string is then used to authenticate with the RADIUS server.
- *password*—RADIUS password
- no-authenticate—Disables authentication

Mode Interface Configuration, Subinterface Configuration

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subscriber disconnect

Syntax [no] subscriber disconnect

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables the E Series router to receive RADIUS-initiated disconnect messages from the RADIUS server. The **no** version restores the default, in which support for RADIUS-initiated disconnect messages is disabled on the router.

NOTE: This command and the RADIUS dynamic-request server feature replace the **radius disconnect client** command, which has been deprecated and may be removed completely in a future release. The RADIUS Disconnect Configuration mode has also been deprecated.

Mode RADIUS Configuration

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subscriber-interface-type

Syntax

subscriber-interface-type *subscriberInterfaceType*

no subscriber-interface-type { *subscriberInterfaceType* | all }

Release Information

Command introduced in JunosE Release 7.1.0.

Description

Assigns a subscriber-interface type to a QoS parameter definition. Subscriber-interface types represent subscriber interfaces to which QoS clients can apply QoS parameter instances obtained through RADIUS, SRC, or QoS profiles. You can specify up to four subscriber-interface types for each parameter definition. The **no** version removes the subscriber-interface type from the parameter definition.

Options

- *subscriberInterfaceType*—One of the following subscriber-interface types: atm-vc, ip, ipv6, l2tp-session, vlan
- all—Removes all subscriber-interface types

Mode

QoS Parameter Definition

Related Documentation

- Configuring a Basic Parameter Definition for QoS Administrators

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subscriber-policy

Syntax [no] subscriber-policy *subscriberPolicyName*

Release Information Command introduced before JunosE Release 7.1.0.

Description Creates a nondefault subscriber policy for a subscriber (client) interface that belongs to a bridge group or to a VPLS instance, and accesses Subscriber Policy Configuration mode from which you define the policy. A subscriber policy is a set of forwarding and filtering rules that specifies how the subscriber interface handles various packet types. The **no** version removes the nondefault subscriber policy from the router.

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 the MPLS tunnels from the router to the remote VPLS edge (VE) devices.

Options

- *subscriberPolicyName*—Name of the subscriber policy; alphanumeric string of up to 32 characters

Mode Global Configuration

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summary-address

Syntax IS-IS:

summary-address *address mask* [level-1 | level-1-2 | level-2] [*metric*] [tag *tagValue*]

no summary-address *address mask* [level-1 | level-1-2 | level-2]

OSPF:

[no] summary-address *address mask*

Release Information Command introduced before JunosE Release 7.1.0.

Description Creates aggregate addresses for IS-IS or aggregates external routes at the border of the OSPF domain. The **no** version restores the default.

Options

- *address*—Summary IP address designated for a range of addresses
- *mask*—IP subnet mask used for the summary route
- level-1—Summarizes routes redistributed into level 1; when distributing routes domain wide, summarizes routes leaked from level 2 into level 1
- level-1-2—Summarizes routes redistributed into level 1 and level 2 IS-IS, and routes leaked between levels
- level-2—Summarizes routes learned by level 1 routing into the level 2 backbone with the configured address/mask value; also summarizes routes redistributed into level 2 IS-IS
- *metric*—Number in the range 1–16777215; the default metric value. The summary uses this value when advertising the summary address. When no metric is supplied, uses the value of the lowest-cost route that this is summarizing (default).
- *tagValue*—Number in the range 1–4294967295 that identifies the route tag assigned to the IS-IS summary address

Mode Router Configuration

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summary-prefix

Syntax For IS-IS from Address Family Configuration mode:

summary-prefix *ipv6Prefix* [level-1 | level-1-2 | level-2] [*metricValue*] [*tagValue*]

no summary-prefix *ipv6Prefix*

For OSPFv3 from Router Configuration mode:

[no] summary-prefix *ipv6Prefix/ipv6prefixLength*

Release Information Command introduced before JunosE Release 7.1.0.
IS-IS version added in JunosE Release 8.2.0.

Description In Address Family configuration mode, aggregates external IPv6 routes at the border of the IS-IS domain. In Router Configuration mode, aggregates external IPv6 routes at the border of the OSPFv3 domain. The **no** version restores the default.

Options

- level-1—Specifies the aggregation of IPv6 routes into IS-IS level 1
- level-1-2—Specifies the aggregation of IPv6 routes into IS-IS level 1 and level 2
- level-2—Specifies the aggregation of IPv6 routes into IS-IS level 2
- *metricValue*—Metric (cost) for the interface to links at the specified level; number in the range 1–16777215
- *tagValue*—Number in the range 1–4294967295 that identifies the route tag assigned to the IS-IS interface
- *ipv6Prefix*—IPv6 network number
- *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.

Mode Address Family Configuration (IS-IS), Router Configuration (OSPFv3)

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suppress-default

Syntax [no] suppress-default

Release Information Command introduced before JunosE Release 7.1.0.

Description Suppresses an IS-IS level 1-2 router from indicating that it can reach destinations outside the area, thus preventing level 1 routers from installing a default route to the level 1-2 router. The **no** version disables suppression of default routes.

Mode Router Configuration

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suspicious-control-flow-detection grouping-off

Syntax [no] suspicious-control-flow-detection grouping-off

Release Information Command introduced in JunosE Release 7.3.0.

Description Turns off suspicious control flow detection overflow protection; flows are grouped into larger entities when the line module flow table overflows. The **no** version turns on overflow protection, which is the default.

Mode Global Configuration

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suspicious-control-flow-detection off

Syntax [no] suspicious-control-flow-detection off

Release Information Command introduced in JunosE Release 7.3.0.

Description Turns off suspicious control flow detection. The **no** version turns on suspicious control flow detection, which is the default.

Mode Global Configuration

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suspicious-control-flow-detection protocol backoff-time

Syntax suspicious-control-flow-detection protocol *protocolValue* backoff-time *backoffTimeValue*

no suspicious-control-flow-detection protocol *protocolValue* backoff-time

Release Information Command introduced in JunosE Release 7.3.0.

Description Sets the backoff expiration time when the flow is no longer considered suspicious for a specific protocol. The **no** version restores the default value of 300 seconds for a protocol.

Options

- *protocolValue*—Name of the protocol. For details about the values that are displayed for this attribute in the CLI interface, see the *Protocol Mapping* section in Understanding DoS Protection. The following names of protocols apply to the *protocolValue* variable that is available with this command, in addition to the list of protocol names that are described in the *Protocol Mapping* section.
  - EthernetFcBasedPppTerminate—Ethernet forwarding controller-based PPP Fast Reconnect
  - EthernetOam—Ethernet OAM packet
  - IpFastBfd—IP fast BFD
  - IpLocalFastBfd—IP local fast BFD
  - IpRouteNull0Interface—IP route to null 0 interface
- *backoffTimeValue*—Period of time in seconds; 0 or a number in the range 10–1000; a value of zero means that a suspicious flow does not change to the nonsuspicious state because of a timeout; if the low threshold value is zero and the backoff time is zero, the flow is only considered no longer suspicious if the rate (in packets per second) goes to zero

Mode Global Configuration

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suspicious-control-flow-detection protocol low-threshold

Syntax suspicious-control-flow-detection protocol *protocolValue* low-threshold *lowThresholdValue*

no suspicious-control-flow-detection protocol *protocolValue* low-threshold

Release Information Command introduced in JunosE Release 7.3.0.

Description Sets the low threshold rate at which a suspicious flow becomes no longer suspicious for a specific protocol. The **no** version restores the default for a protocol, which is a protocol-dependent non-zero numeric value.

Options

- *protocolValue*—Name of the protocol. For details about the values that are displayed for this attribute in the CLI interface, see the *Protocol Mapping* section in Understanding DoS Protection. The following names of protocols apply to the *protocolValue* variable that is available with this command, in addition to the list of protocol names that are described in the *Protocol Mapping* section.
  - EthernetFcBasedPppTerminate—Ethernet forwarding controller-based PPP Fast Reconnect
  - EthernetOam—Ethernet OAM packet
  - IpFastBfd—IP fast BFD
  - IpLocalFastBfd—IP local fast BFD
  - IpRouteNull0Interface—IP route to null 0 interface
- *lowThresholdValue*—Threshold value in packets per second; 0 or a number in the range 1–32767; a value of zero means that a suspicious flow cannot change to the nonsuspicious state via a threshold; a flow can only become nonsuspicious via a backoff time; if the low threshold value is zero and the backoff time is zero, the flow can only be considered nonsuspicious if the rate (in packets per second) goes to zero

Mode Global Configuration

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suspicious-control-flow-detection protocol threshold

Syntax suspicious-control-flow-detection protocol *protocolValue* threshold *thresholdValue*

no suspicious-control-flow-detection protocol *protocolValue* threshold

Release Information Command introduced in JunosE Release 7.3.0.

Description Sets a threshold rate at which a flow becomes suspicious for a specific protocol. The **no** version restores the default for a protocol, which is a protocol-dependent numeric value.

Options

- *protocolValue*—Name of the protocol. For details about the values that are displayed for this attribute in the CLI interface, see the *Protocol Mapping* section in Understanding DoS Protection. The following names of protocols apply to the *protocolValue* variable that is available with this command, in addition to the list of protocol names that are described in the *Protocol Mapping* section.
  - EthernetFcBasedPppTerminate—Ethernet forwarding controller-based PPP Fast Reconnect
  - EthernetOam—Ethernet OAM packet
  - IpFastBfd—IP fast BFD
  - IpLocalFastBfd—IP local fast BFD
  - IpRouteNull0Interface—IP route to null 0 interface
- *thresholdValue*—Zero or a number in the range 3–65535; when set to zero, no flows for the protocol type are considered suspicious

Mode Global Configuration

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svlan ethertype

Syntax svlan ethertype *ethertypeValue*

no svlan ethertype

Release Information Command introduced before JunosE Release 7.1.0.
88a8 keyword added in JunosE Release 7.1.0.

Description In Interface Configuration mode, specifies the Ethertype of an S-VLAN. The **no** version restores the default value, 9100.

In Profile Configuration mode, specifies the available Ethertypes that the packet must use to create a dynamic VLAN subinterface. The **no** version restores the default value, autoconfig.

Use an Ethertype value that matches the Ethertype value set on the customer premises equipment (CPE) to which your router connects.

Options

- *ethertypeValue*—One of the following Ethertype values:
  - 8100—Specifies Ethertype value 0x8100, as defined in IEEE Standard 802.1q
  - 88a8—Specifies Ethertype value 0x88a8, as defined in draft IEEE Standard 802.1ad
  - 9100—Specifies Ethertype value 0x9100, which is the default for Interface Configuration mode
  - autoconfig—Specifies in a VLAN profile that the packet can use any Ethertype to create a dynamic VLAN subinterface; this is the default for Profile Configuration mode

Mode Interface Configuration, Profile Configuration

Related Documentation

- Configuring S-VLAN Tunnels for Layer 2 Services

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svlan id

Syntax svlan id *s-vlanIdValue* { *vlanIdValue* | any | anyuntagged } [icr-control-interface] [mac-address *macAddress*]

Release Information Command introduced before JunosE Release 7.1.0.
anyUntagged keyword added in JunosE Release 10.0.0.
icr-control-interface keyword added in JunosE Release 10.3.0.

Description Assigns an S-VLAN ID and a VLAN ID to a VLAN subinterface, or, with the use of the **any** keyword, creates an S-VLAN tunnel. Sets the C-VLAN ID as 0 or untagged to transport both customer-tagged and customer-VLAN-untagged frames inside a predefined stacked-tag over a single pseudowire. Sets an S-VLAN ID and a VLAN ID to a VLAN subinterface on which an ICR partition is to be configured. You must issue this command before any upper bindings are made, such as IP or PPPoE. There is no **no** version.

Options

- *s-vlanIdValue*—S-VLAN ID number in the range 0–4095, which is unique within the Ethernet interface.
- *vlanIdValue*—VLAN ID number in the range 0–4095, which is unique within the Ethernet interface.
- any—Tunnels traffic from VLANs configured with the specified S-VLAN ID and any VLAN ID to the same destination across an MPLS network.
- anyUntagged—Sets the customer-VLAN (C-VLAN) ID configured inside an S-VLAN as part of a pseudowire as 0. Tunnels traffic from VLANs configured with the specified S-VLAN ID, whose Ethertype is not 8100, and an untagged C-VLAN ID to the same destination across an MPLS network. Enables both double-tagged and single-tagged traffic that matches the S-VLAN ID to pass through the subinterface.
- icr-control-interface—Sets the VLAN subinterface as an ICR control interface on which you want to configure the ICR partition. We recommend that you use this option only if you want the VLAN subinterface to be used to create ICR partitions.
- *macAddress*—MAC address of the interface; when you do not specify a unique MAC address, the S-VLAN uses the MAC address of the Ethernet interface.

Mode Interface Configuration

Related Documentation

- Configuring S-VLAN Tunnels for Layer 2 Services
- Examples: Configuring S-VLAN Subinterface with an Untagged C-VLAN ID

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svlan qos-parameter

Syntax svlan *s-vlanIdValue* qos-parameter *qosParameterInstanceName qosParameterValue*

no svlan s-vlanIdValue qos-parameter *qosParameterInstanceName*

Release Information Command introduced in JunosE Release 7.1.0.

Description Attaches a QoS parameter instance to the specified S-VLAN ID on the Ethernet major interface. The **no** version detaches the parameter instance from the S-VLAN ID.

Options

- *s-vlanIdValue*—S-VLAN ID number in the range 0–4095
- *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

Related Documentation

- Creating Parameter Instances

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svlan qos-profile

Syntax [no] svlan *s-vlanIdValue* qos-profile *qosProfileName*

Release Information Command introduced in JunosE Release 7.1.0.

Description Attaches a QoS profile to the specified S-VLAN ID on the interface. The **no** version detaches the QoS profile from the S-VLAN ID.

Options
- *s-vlanIdValue*—S-VLAN ID number in the range 0–4095
- *qosProfileName*—Name of the QoS profile that you want to attach to the S-VLAN ID

Mode Interface Configuration

Related Documentation
- Attaching a QoS Profile to an Interface

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switch-profile

Syntax switch-profile *profileName*

no switch-profile

Release Information Command introduced in JunosE Release 7.2.0.

Description From Domain Map Tunnel Configuration mode, applies the specified L2TP tunnel switch profile to sessions associated with an AAA domain map. From Tunnel Group Tunnel Configuration mode, applies the specified L2TP tunnel switch profile to sessions associated with an AAA tunnel group. An L2TP tunnel switch profile defines the L2TP tunnel switching behavior for the interfaces to which this profile is assigned. The **no** version removes the tunnel switch profile assignment from the AAA domain map or AAA tunnel group.

Options

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

Mode Domain Map Tunnel Configuration, Tunnel Group Tunnel Configuration

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synchronization

Syntax [no] synchronization

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables synchronization between BGP and your IGP. The **no** version advertises a network route without waiting for the IGP.

Mode Address Family Configuration, Router Configuration

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synchronize

Syntax To force the NVS file system of the redundant SRP module to synchronize with the NVS file system of the primary SRP module:

synchronize

To force the system to validate all NVS files or only configuration files, and to synchronize all files that failed the checksum test as well as any other unsynchronized files:

synchronize low-level-check { all | configuration }

Release Information Command introduced before JunosE Release 7.1.0.

Description Forces the NVS file system of the redundant SRP module to synchronize with the NVS file system of the primary SRP module. Optionally, you can use the **low-level-check** keyword to force the system to validate all files or only configuration files in NVS, and to synchronize all files that failed the checksum validation test during the flash-disk compare command as well as any other files that are unsynchronized. There is no **no** version.

Options

- all—Validates all files in NVS, and synchronizes all files that failed the checksum test as well as any other unsynchronized files; this option can take several minutes to complete
- configuration—Validates all configuration files in NVS, and synchronizes all files that failed the checksum test as well as any other unsynchronized files; this option takes less time to complete because it validates only a subset of the files in the NVS file system

Mode Privileged Exec

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CHAPTER 8

T Commands

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t1 bert

Syntax t1 *channel* bert pattern *pattern* interval *time* [unframed]

no t1 *channel* bert

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables bit error rate tests using the specified pattern on a T1 line on a CT3 module. The **no** version stops the test that is running.

Options

- *channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- *pattern*—One of the following test patterns
  - 0s—Repetitive test pattern of all zeros, 00000...
  - 1s—Repetitive test pattern of all ones, 11111...
  - 2^11—Pseudorandom test pattern, 2047 bits in length
  - 2^15—Pseudorandom test pattern, 32767 bits in length
  - 2^20-O153—Pseudorandom test pattern, 1048575 bits in length
  - 2^20-QRSS—Pseudorandom QRSS test pattern, 1048575 bits in length
  - 2^23—Pseudorandom test pattern, 8388607 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—Specifies that the test bit pattern occupies all bits on the link, overwriting the framing bits. If you do not specify the **unframed** keyword, then the test bit pattern occupies only T1 payload bits.

Mode Controller Configuration

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t1 clock source

Syntax t1 *channel* clock source { line | internal { module | chassis } }

no t1 *channel* clock source

Release Information Command introduced before JunosE Release 7.1.0.

Description Determines which end of the T1 interface provides clocking. The **no** version uses the default value, **line**.

Options

- *channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- line—Interface transmits data from a clock recovered from the line's receive data stream
- internal—Interface transmits data using 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

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t1 description

Syntax t1 *channel* [*/subchannel*] description *name*

no t1 *channel* [*/subchannel*] description

Release Information Command introduced before JunosE Release 7.1.0.

Description Assigns a text description or an alias to a T1 or fractional T1 channel on a CT3 module. Use the **show controllers t1** command to display the text description. The **no** version removes the description or alias.

Options

- *channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- *subchannel*—FT1 subchannel on a T1 interface in the range 1–24
- *name*—Text string or alias of up to 80 characters for the T1 or fractional T1 channel on the CT3 module

Mode Controller Configuration

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t1 fdl

Syntax t1 *channel* fdl { ansi | att | all | none }

no t1 *channel* fdl [ansi | att | all]

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the FDL standard used by a specific T1 channel on the CT3 interface. The **no** version restores the default, none.

Options

- *channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- ansi—Specifies ANSI T1.403 Standard for extended superframe FDL exchange support
- att—Specifies AT&T Technical Reference 54016 for extended superframe FDL exchange support
- all—Specifies both the AT&T and ANSI mode for extended superframe FDL exchange support
- none—Removes the current FDL mode settings

Mode Controller Configuration

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t1 fdl carrier

Syntax [no] t1 *channel* fdl carrier

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies that an interface is used in the carrier environment of a T1 channel on a CT3 interface. The **no** version restores the default situation, in which an interface does not operate in the carrier environment.

Options
- *channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27

Mode Controller Configuration

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t1 fdl string

Syntax t1 *channel* fdl string { eic *eicValue* | fic *ficValue* | lic *licValue* | unit *unitValue* | pfi *pfiValue* | port *portValue* | generator *generatorValue* }

no t1 *channel* fdl string { eic | fic | lic | unit | pfi | port | generator }

Release Information Command introduced before JunosE Release 7.1.0.

Description Defines an FDL message on a T1 channel on a CT3 interface as defined in the ANSI T1.403 specification. Currently, FDL strings can be configured only locally. The **no** version restores the default value to the specified FDL message or to all FDL messages.

Options

- *channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- *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; 1–10 characters; default value is the null value
- *unitValue*—Unit identification code; 1–6 characters; default value is the null value.
- *pfiValue*—Facility identification code to send in the FDL path message; 1–38 characters; default value is the null value.
- *portValue*—Equipment port number to send in the FDL idle signal message; 1–38 characters; default value is the null value.
- *generatorValue*—Generator number to send in the FDL test signal message; 1–38 characters; default value is the null value.

Mode Controller Configuration

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t1 fdl transmit

Syntax t1 *channel* fdl transmit { path-id | idle-signal | test-signal }

no t1 *channel* fdl transmit [path-id | idle-signal | test-signal]

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the router to send the specified FDL message on a T1 channel on a CT3 interface. The **no** version stops the router from sending the specified FDL message or all FDL messages.

Options

- *channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- 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

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t1 framing

Syntax t1 *channel* framing { esf | sf }

no t1 *channel* framing

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the type of framing used by a specific T1 channel on a CT3 interface. The **no** version restores the default value, esf.

Options
- *channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- esf—Specifies extended superframe
- sf—Specifies superframe

Mode Controller Configuration

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t1 lineCoding

Syntax t1 *channel* lineCoding { ami | b8zs }

no t1 *channel* lineCoding

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the type of line coding used by a specific T1 channel on a CT3 interface. The **no** version restores the default value, b8zs.

NOTE: This command is deprecated and may be removed completely in a future release. No alternate command exists, because line coding can be specified only on the bottom layer.

Options

- *channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- ami—Specifies alternate mark inversion
- b8zs—Specifies bipolar with eight-zero substitution

Mode Controller Configuration

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t1 loopback

Syntax

t1 *t1Channel* loopback [local | network { line | payload }]

no t1 *t1Channel* loopback

t1 *t1Channel* loopback remote { line { fdl { ansi | bellcore } | inband } | payload [fdl] [ansi] }

no t1 *t1Channel* loopback remote

Release Information

Command introduced before JunosE Release 7.1.0.

Description

Configures a loopback test for a T1 line on a CT3 module. The no version deactivates the loopback test; if you specify the **remote** keyword, the **no** version sends the 16-bit ESF data link code word or inband pattern to deactivate the loopback at the remote end based on the last activate request sent to the remote end. If you do not specify the **remote** keyword, the **no** version clears the local loopback configuration.

Options

- *t1Channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- local—Loops the router output data back toward the router at the T1 framer; on supported line modules also sends an alarm indication signal (AIS) out toward the network. This is the default setting if you specify no optional keywords.
- network line—Loops the data back toward the network before the T1 framer and automatically sets a local loopback at the HDLC controllers
- network payload—Loops the payload data back toward the network at the T1 framer and automatically sets a local loopback at the HDLC controllers
- remote line fdl ansi—Sends a repeating 16-bit ESF data link code word (00001110 11111111) to the remote end requesting that it enter into a network line loopback. The **ansi** keyword enables the remote line FDL ANSI bit loopback on the T1 channel, according to the ANSI T1.403 specification.
- remote line fdl bellcore—Sends a repeating 16-bit ESF data link code word (00010010 11111111) to the remote end, requesting that it enter into a network line loopback. The **bellcore** keyword enables the remote line FDL Bellcore bit loopback on the T1 channel, according to the Bellcore TR-TSY-000312 specification.
- remote line inband—Sends a repeating 5-bit inband pattern (00001) to the remote end, requesting that it enter into a network line loopback
- remote payload [fdl] [ansi]—Sends a repeating 16-bit ESF data link code word (00010100 11111111) to the remote end, requesting that it enter into a network payload loopback. Enables the remote payload FDL ANSI bit loopback on the T1 channel. You can optionally specify fdl *and* ansi, but it is not necessary.

Mode

Controller Configuration

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t1 remote-loopback

Syntax [no] t1 *channel* remote-loopback

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables the acceptance of loopback commands issued from a remote router. The **no** version restores the default value, which is to reject loopback commands issued from a remote router.

Options
- *channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27

Mode Controller Configuration

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t1 shutdown

Syntax [no] t1 *channel* [*/subchannel*] shutdown

Release Information Command introduced before JunosE Release 7.1.0.

Description Disables a T1 or fractional T1 channel on a CT3 interface. The **no** version restarts a disabled interface.

Options

- *channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- *subchannel*—FT1 subchannel on a T1 interface, in the range 1–24

Mode Controller Configuration

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t1 snmp trap link-status

Syntax [no] t1 *channel* [*/subchannel*] snmp trap link-status

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables processing of SNMP link status information about a T1 or fractional T1 channel on a CT3 interface. The **no** version disables the processing of SNMP link status information.

Options

- *channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27
- *subchannel*—Specifies the FT1 subchannel on a T1 interface, in the range 1–24

Mode Controller Configuration

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t1 timeslots

Syntax t1 *channel/subchannel* timeslots *range* [speed { 56 | 64 }]

no t1 *subchannel*

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the timeslots and data rate used on each T1 channel on the CT3 interface. The **no** version deletes the fractional T1 circuit.

Options

- *channel*—T1 channel number in the range 1–28
- *subchannel*—Subchannel specifies the logical subchannel on a T1 in the range 1–24
- *range*—Specifies the timeslot assigned to the T1 channel, in the range 1–24. A dash represents a range of timeslots, and a comma separates timeslots. For example, 1-10, 15-18 assigns timeslots 1 through 10 and 15 through 18.
- speed—Specifies the data rate for the T1 channel, either 56 Kbps or 64 Kbps; default value is 64 Kbps

Mode Controller Configuration

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t1 yellow

Syntax [no] t1 *channel* yellow { generate | detect }

Release Information Command introduced before JunosE Release 7.1.0.

Description Generates or detects a yellow alarm for a T1 channel on a CT3 interface. The **no** version restores the default value, to not generate or to not detect a yellow alarm.

Options

- *channel*—One or more individual T1 channels, ranges of T1 channels, or combination of individual channels and ranges, in the range 1–28 (no spaces); for example, 3,7-15,19-13,27

Mode Controller Configuration

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table-map

Syntax table-map *mapTag*

For removing route maps for IS-IS IPv6 only:

no table-map

For removing route maps for all other cases:

no table-map [*mapTag*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Applies the specified route map to all BGP, IS-IS, OSPF, or RIP routes about to be added to the IP routing table. The **no** version halts application of the route map.

Options

- *mapTag*—A string of up to 32 alphanumeric characters that specifies the name of the route map; for each protocol, the route map can set only the following values:
  - BGP—Distance, IP next hop, level, metric, metric type, route type, and tag values
  - IS-IS—Distance, level, metric, metric type, origin, preference, route type, and tag values; IS-IS IPv6 supports only a single route map
  - OSPF—Distance, metric, metric type, route type, and tag values
  - RIP—Distance, metric, and tag values

Mode Address Family Configuration (BGP, IS-IS, RIP), Router Configuration (BGP, IS-IS, OSPF, RIP)

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tacacs-server host

Syntax tacacs-server host *ipAddress* [port *portNumber*]
[timeout *timeoutValue*] [key *keyValueString*] [primary]

no tacacs-server host *ipAddress*

Release Information Command introduced before JunosE Release 7.1.0.

Description Adds or deletes a host to or from the list of TACACS+ servers. If the host is not assigned as the primary host, the router assigns an existing host as the primary. The **no** version deletes the host from the list of TACACS+ servers.

NOTE: You can configure the TACACs+ server only on default virtual routers. If you attempt to configure TACACS+ server settings on VRs other than the default VR or in a VRF, an error message is displayed.

Options

- *ipAddress*—IP address of the TACACS+ server
- *portNumber*—TACACS+ server's TCP port number in the range 1–655535
- *timeoutValue*—Response timeout interval for the TACACS+ client to server exchange; number in the range 1–255; default value is 5
- *keyValueString*—Secret used in TACACS+ client to server exchange; string of up to 100 characters
- primary—Assigns the host as the primary host

Mode Global Configuration

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tacacs-server key

Syntax tacacs-server key *keyValueString*

no tacacs-server key

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets or resets the authentication and encryption key value shared by all TACACS+ servers that do not have a server-specific key set up by the **tacacs-server host** command. The **no** version removes the key value shared by all TACACS+ servers.

NOTE: You can configure the TACACs+ server only on default virtual routers. If you attempt to configure TACACS+ server settings on VRs other than the default VR or in a VRF, an error message is displayed.

Options

- *keyValueString*—String of up to 100 characters; must match key configured on the TACACS+ daemon

Mode Global Configuration

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tacacs-server retransmit-retries

Syntax [no] tacacs-server retransmit-retries *retryNum*

Release Information Command introduced in JunosE Release 13.1.0.

Description Specifies the number of retry attempts that will be made to establish a Transmission Control Protocol (TCP) connection between a TACACS+ client and the TACACS+ server. The maximum retry attempt for a request is five. By default, the retry value is two. The **no** version restores the default value.

NOTE: You can configure the TACACs+ server only on default virtual routers. If you attempt to configure TACACS+ server settings on VRs other than the default VR or in a VRF, an error message is displayed.

Options
- *retryNum*—Number of retry attempts in the range 1–5

Mode Global Configuration, Interface Configuration

Related Documentation
- Retry Attempts for Successful TCP Connection Overview

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tacacs-server source-address

Syntax tacacs-server source-address *ipAddress*

no tacacs-server source-address

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets or resets an alternative source address to be used for TACACS+ server communications. The **no** version removes the address.

NOTE: You can configure the TACACs+ server only on default virtual routers. If you attempt to configure TACACS+ server settings on VRs other than the default VR or in a VRF, an error message is displayed.

Options

- *ipAddress*—IP address used as source by the TACACS+ server

Mode Global Configuration

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tacacs-server timeout

Syntax tacacs-server timeout *timeoutValue*

no tacacs-server timeout

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the interval in seconds that the server waits for the TACACS+ server host to reply. This value is shared by those TACACS+ servers that do not have a timeout interval set by the **tacacs-server host** command. The **no** version resets the timeout interval shared by all TACACS+ servers.

NOTE: You can configure the TACACs+ server only on default virtual routers. If you attempt to configure TACACS+ server settings on VRs other than the default VR or in a VRF, an error message is displayed.

Options

- *timeoutValue*—Response timeout interval for the TACACS+ client to server exchange; number in the range 1–255; default value is 5

Mode Global Configuration

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tag

Syntax tag *tagValue*

no tag

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies a user-defined tag. You can configure a tag for both echo and echoPath types. The **no** version removes the tag from the operation.

Options
- *tagValue*—Name of a group to which the operation belongs; string of 0–255 ASCII characters; default value is to have no tag

Mode RTR Configuration

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tag-group

Syntax tag-group *tagGroup*

no tag-group

Release Information Command introduced in JunosE Release 8.1.0.

Description Configures an interface tag group. The **no** version removes the tag group.

NOTE:

- Any number of interfaces can be in a tag group.
- Interface types tunnel, lag, mlppp, and mlframe-relay cannot be added to tag groups.
- An interface can be in only one tag group.

Options

- *tagGroup*—Name of the interface tag group

Mode Interface Configuration

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tcp ack-rst-and-syn

Syntax [no] [ip] tcp ack-rst-and-syn [vrf *vrfName*]

Release Information Command introduced before JunosE Release 7.1.0
ip keyword made optional in JunosE Release 7.2.0.

Description Enables TCP ACK message validation along with TCP RST and SYN attack protection on the virtual router. The **no** version disables this protection.

Options
- ip—Optional keyword for use with older scripts
- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters

Mode Global Configuration

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tcp mss

Syntax [ip] tcp mss [vrf *vrfName*] *mssValue*

no [ip] tcp mss [vrf *vrfName*]

Release Information Command introduced before JunosE Release 7.1.0.
ip keyword made optional in JunosE Release 7.2.0.

Description Specifies the MSS value for TCP to use. The **no** version removes the MSS value, and the router uses the advertised MSS derived from the MTU of the output interface.

NOTE: The MSS value is equal to the MTU value minus the IP or IPv6 and TCP headers. This means that the MSS value is generally 40 bytes less than the MTU (for IPv4) and 60 bytes less than the MTU (for IPv6.

Options

- ip—Optional keyword for use with older scripts
- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *mssValue*—Value for MSS that you want TCP to use; in the range 536–65495 bytes for IPv4 and 1280–65495 bytes for IPv6

Mode Interface Configuration

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tcp path-mtu-discovery

Syntax [ip] tcp path-mtu-discovery [vrf *vrfName*] [age-timer [indefinite | *minutes* [*minutes_2*]] | max-mtu *maxMtu* | min-mtu *minMtu* | black-hole-detect-threshold *blackHoleThreshold* }

no [ip] tcp path-mtu-discovery [vrf *vrfName*] [age-timer | max-mtu | min-mtu | black-hole-detect-threshold }

Release Information Command introduced before JunosE Release 7.1.0.
ip keyword made optional in JunosE Release 7.2.0.

Description Enables and configures path MTU discovery on the virtual router. Issuing the command without any keywords enables path MTU discovery. Using the keywords with the command configures specified values. The **no** version, when issued with a keyword, deletes the value. When issued without any keywords, the **no** version disables path MTU discovery on the virtual router.

Options

- ip—Optional keyword for use with older scripts
- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- indefinite—Disables aging functions. That is, TCP does not attempt to increase the path MTU; the path MTU decreases only in response to received ICMP Too Big messages.
- *minutes*—Time (in minutes) that TCP waits after receiving an ICMP Too Big message before attempting to increase the path MTU. The timer range is 1–30 minutes.
- *minutes_2*—Time (in minutes) that TCP waits after a successful path MTU increase before attempting to increase it again. The timer range is 1–30 minutes.
- *maxMtu*—Maximum MTU size that the virtual router can accept; number, in the range 68–65535; default value is no limit
- *minMtu*—Minimum MTU value that the virtual router can accept; number, in the range 68–65535; default value is no limit
- *blackHoleThreshold*—Black hole threshold value that you want all connections on this virtual router to use. The range is 0–65535.

Mode Router Configuration

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tcp paws-disable

Syntax [no] [ip] tcp paws-disable [vrf *vrfName*]

Release Information Command introduced in JunosE Release 7.1.0.
ip keyword made optional in JunosE Release 7.2.0.

Description Disables the Protect Against Wrapped Sequence (PAWS) number option in TCP segments. The **no** version restores PAWS processing (the default mode).

Options
- ip—Optional keyword for use with older scripts
- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters

Mode Global Configuration

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tcp resequence-buffers connection-maximum

Syntax [ip] tcp resequence-buffers [vrf *vrfName*] connection-maximum *connMaxValue*

no [ip] tcp resequence-buffers [vrf *vrfName*] connection-maximum

Release Information Command introduced before JunosE Release 7.1.0.
ip keyword made optional in JunosE Release 7.2.0.

Description Defines the maximum number of buffers that connections on the current or specified virtual router can use. Specifying a value of zero (0) turns off the connection maximum. The **no** version reverts the connection maximum value to its default (10 buffers).

Options

- ip—Optional keyword for use with older scripts
- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *connMaxValue*—Maximum number of buffers for each virtual router connection, in the range 1–65535

Mode Global Configuration

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tcp resequence-buffers default-connection-maximum

Syntax [ip] tcp resequence-buffers default-connection-maximum *defaultConnMaxValue*

no [ip] tcp resequence-buffers default-connection-maximum

Release Information Command introduced before JunosE Release 7.1.0.
ip keyword made optional in JunosE Release 7.2.0.

Description Specifies the default buffer limit assigned to all TCP connections on a virtual router unless a specific limit is set for the VR in which the connection is established. Specifying a value of zero (0) buffers turns off the default limit. The **no** version reverts the connection maximum value to its default (10 buffers).

Options

- ip—Optional keyword for use with older scripts
- *defaultConnMaxValue*—Default number of maximum buffers for newly created connections on a virtual router, in the range 1–65535

Mode Global Configuration

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tcp resequence-buffers default-vr-maximum

Syntax [ip] tcp resequence-buffers default-vr-maximum *defaultVrMaxValue*

no [ip] tcp resequence-buffers default-vr-maximum

Release Information Command introduced before JunosE Release 7.1.0.
ip keyword made optional in JunosE Release 7.2.0.

Description Specifies the default buffer limit assigned to all virtual routers when the virtual router is established. Specifying a value of zero (0) turns off the limit assignment. The **no** version reverts the virtual router maximum value to its default (100 buffers).

Options
- ip—Optional keyword for use with older scripts
- *defaultVrMaxValue*—Default number of maximum buffers for newly established virtual routers, in the range 1–65535

Mode Global Configuration

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tcp resequence-buffers global-maximum

Syntax ip tcp resequence-buffers global-maximum *globalMaxValue*

no [ip] tcp resequence-buffers global-maximum

Release Information Command introduced before JunosE Release 7.1.0.
ip keyword made optional in JunosE Release 7.2.0.

Description Specifies a router-wide maximum number of buffers that resequencing queues can contain. Specifying a value of zero (0) turns off the limit. The **no** version reverts the global maximum buffer value to its default (1000 buffers).

Options
- ip—Optional keyword for use with older scripts
- *globalMaxValue*—Maximum number of buffers in the range 1–65535

Mode Global Configuration

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tcp resequence-buffers vr-maximum

Syntax [ip] tcp resequence-buffers [vrf *vrfName*] vr-maximum *vrMaxValue*

no [ip] tcp resequence-buffers [vrf *vrfName*] vr-maximum

Release Information Command introduced before JunosE Release 7.1.0.
ip keyword made optional in JunosE Release 7.2.0.

Description Defines the maximum number of buffers that the current or specified virtual router can use. Specifying a value of zero (0) turns off the limit assignment. The **no** version reverts the virtual router maximum value to its default (100 buffers).

Options
- ip—Optional keyword for use with older scripts
- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *vrMaxValue*—Virtual router maximum in the range 1–65535

Mode Global Configuration

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tech-support encoded-string

Syntax tech-support slot *slotNumber* [connection { reliable | fast }] encoded-string *string*

Release Information Command introduced before JunosE Release 7.1.0.
slot and connection keywords added in JunosE Release 9.1.0.

Description Executes the specified encoded command string to gather information to return to Juniper Networks customer support. Use this command only under the direction of Juniper Networks customer support. By default, this command requires level 15 access. There is no **no** version.

Options

- *slotNumber*—Number of a selected slot in the router
- connection—Specifies the connection type:
  - reliable—Use a reliable connection with a slower response time, which is the default
  - fast—Use a less reliable connection with a faster response time, which could be unsuccessful for certain conditions
- *string*—Encoded string provided by Juniper Networks Customer Support

Mode Privileged Exec

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telnet

Syntax telnet *ipAddress* | *hostname* [vrf *vrfName*] [*ipPortNumber* | *ipPortType*] [source-interface *interfaceType interfaceSpecifier* | noecho | line | debug | verbose]*

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables connections to remote routers via the embedded Telnet client. There is no **no** version.

Options

- *ipAddress*—IP address of the remote router
- *hostname*—Name of the remote router
- *vrfName*—Name of the VRF to which the command applies; string of 1–32 alphanumeric characters
- *ipPortNumber*—Number of the port for the connection to the remote router, in the range 0–65535; default value is port number 23, the Telnet port. For more information about port numbers and associated processes, see *www.iana.org*.
- *ipPortType*—Name of a well-known port, as follows:
  - bgp—Border Gateway Protocol (port 179)
  - chargen—Character generator (port 19)
  - cmd—Remote commands (port 514)
  - daytime—Daytime (port 13)
  - discard—Discard (port 9)
  - domain—Domain Name Service (port 53)
  - echo—Echo (port 7)
  - exec —Exec (port 512)
  - finger—Finger (port 79)
  - ftp—File Transfer Protocol (port 21)
  - ftp-data—FTP data connections (port 20)
  - gopher—Gopher (port 70)
  - hostname—NIC hostname server (port 101)
  - ident—Ident Protocol (port 113)
  - irc—Internet Relay Chat (port 194)
  - klogin—Kerberos login (port 543)
  - kshell—Kerberos shell (port 544)
  - login—Login (port 513)

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- lpd—Printer service (port 515)
- nntp—Network News Transport Protocol (port 119)
- pim-auto-rp—Protocol Independent Multicast Auto RP (port 496)
- pop2—Post Office Protocol version 2 (port 109)
- pop3—Post Office Protocol version 2 (port 110)
- smtp—Simple Mail Transport Protocol (port 25)
- sunrpc—Sun Remote Procedure Call (port 111)
- syslog—Syslog (port 514)
- tacacs—Terminal Access Concentrator Access Control System (port 49)
- talk—Talk (port 517)
- telnet—Telnet (port 23)
- time—Time (port 37)
- uucp—Unix-to-Unix Copy Program (port 540)
- whois—Nickname (port 43)
- www —World Wide Web (port 80)

- source-interface—Forces Telnet to use the IP address of the specified interface as the source address for the Telnet connection
  - *interfaceType*—Type of interface to use to obtain the source address for the Telnet connection; see Interface Types and Specifiers on page 5
  - *interfaceSpecifier*—Number of interface to use to obtain the source address for the Telnet connection; format varies according to interface type; see Interface Types and Specifiers on page 5
- noecho—Disables local echo of user input
- line—Enables line mode
- debug—Enables debugging
- verbose—Enables verbose mode
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Privileged Exec

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telnet listen

Syntax telnet listen [port *portValue*]

no telnet listen

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the Telnet daemon to listen in a virtual router other than the default. The **no** version deletes the Telnet daemon.

Options
- *portValue*—TCP port on which the Telnet daemon listens; if not specified, uses the default, port 23

Mode Global Configuration

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terminal data-character-bits

Syntax terminal data-character-bits { 7 | 8 }

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the number of data bits available for characters for the current session on the terminal screen. There is no **no** version.

Options

- 7—Seven data bits per character; this setting supports only characters in the standard ASCII set
- 8—Eight data bits per character; this is the default setting, which supports the full set of 8-bit international characters

NOTE: You should be sure that software on other devices in the network also supports international characters.

Mode Privileged Exec, User Exec

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terminal length

Syntax terminal length *value*

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the number of lines on the current terminal screen for the current session. There is no **no** version.

Options
- *value*—Number for the screen length in the range 0–512. If 0, the router does not pause between screens of output. If not 0, the router pauses between screens.

Mode Privileged Exec, User Exec

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terminal speed

Syntax terminal speed *baudRate*

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the speed for the current console session. There is no **no** version.

Options
- *baudRate*—Terminal speed for the current console session; one of the following values: 2400, 4800, 9600, 14400, 19200, 28800, 38400, 57600, 115200

Mode Privileged Exec

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terminal width

Syntax terminal width *value*

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the number of character columns on the current terminal screen for the current line for a session. There is no **no** version.

Options
- *value*—Number of characters in the range 30–512

Mode Privileged Exec, User Exec

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terminate-code

Syntax terminate-code *application terminateReason translationApplication terminateCode*

no terminate-code *application terminateReason translationApplication*

Release Information Command introduced in JunosE Release 7.3.0.

Description Configures custom mappings of application terminate reasons to RADIUS Acct-Terminate-Cause codes. The **no** version restores the default mappings.

Options

- *application*—Application; AAA, L2TP, PPP, or RADIUS client
- *terminateReason*—Reason that the subscriber's session was terminated
- *translationApplication*—Application whose terminate code is used for the mapping; for example, RADIUS
- *terminateCode*—Standards-based code used by the translation application to identify the terminate reason; for example, a RADIUS Acct-Terminate-Cause code

Mode Global Configuration

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test aaa

Syntax test aaa { ppp | mlppp } *userName* [*password*] [virtual-router *vrContext*] [aaa-profile *profileName*] [zero-stats] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Verifies RADIUS authentication and accounting and IP (or IPv6) address assignment setup. The test uses a username and password and attempts to authenticate a user, get an address assignment, and issue a start accounting request. The test immediately terminates the session by issuing a stop accounting request and an address release. Optionally, a virtual router context may be specified. There is no **no** version.

Options

- ppp—Indicates a PPP user
- mlppp—Simulates Multilink PPP
- *userName*—Username to test
- *password*—Password to associate with username; the password is optional—when omitted, the RADIUS access request has no User-Password attribute
- *vrContext*—Virtual router context in which to authenticate the user
- *profileName*—Name of AAA profile for the user
- zero-stats—Specifies that accounting statistics should be set to zero for this test
- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec

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test bgp ipv6 neighbor

Syntax test bgp ipv6
[unicast | multicast | vpnv6 all | vpnv6 vrf *vrfName* | route-target signaling]
neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* }
{ advertised-routes | routes } [*ipv6Prefix*]
[distribute-list *accessListName* |
filter-list *asPathAccessListName* [weight *weightValue*] |
prefix-list *prefixListName* | prefix-tree *prefixTreeName* | route-map *mapTag*]*
[fields { *fieldOptions* }] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
route-target signaling keywords added in JunosE Release 8.2.0.

Description Tests BGP policy for IPv6 BGP routes advertised to or received from peers without implementing the policy. There is no **no** version.

Options

- unicast—Specifies the IPv6 unicast address family and routing table; the default option
- multicast—Specifies the IPv6 multicast address family and routing table
- vpnv6 all—Specifies the VPN-IPv6 address family and all IPv6 VPN routing and forwarding instances
- vpn6 vrf *vrfName*—Specifies the VPN-IPv6 address family and only the IPv6 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Specifies the route-target address family
- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group
- advertised-routes—Tests only the outgoing advertisements to the specified BGP neighbor or peer group
- routes—Tests only the incoming routes originating from the specified BGP neighbor or peer group
- *ipv6Prefix*—IPv6 prefix for which you want information displayed
- *accessListName*—Name of the access list to use as the distribute list to filter routes by prefix; string of up to 32 alphanumeric characters
- *asPathAccessListName*—Name of a single AS path access list used to filter routes by AS path; string of up to 32 characters
- *weightValue*—Weight assigned to incoming routes matched by the AS path access list; integer in the range 0–4294967295
- *prefixListName*—Name of a BGP prefix list used to filter routes by prefix
- *prefixTreeName*—Name of a BGP prefix tree used to filter routes by prefix

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- *mapTag*—Name of a route map; string of up to 32 alphanumeric characters
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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; typically, but not always, this is the label advertised to MP-BGP peers
  - 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
  - origin—Origin of the route
  - originator-id—Router ID of the router in the local AS that originated the route
  - out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
  - peer—IP address of BGP peer from which route was learned

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- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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test ip bgp neighbor

Syntax test ip bgp
[ipv4 unicast | ipv4 multicast | vpnv6 all | vpnv6 vrf *vrfName* |
route-target signaling] neighbor { *ipAddress* | *ipv6Address* | *peerGroupName* } {
advertised-routes |
routes } [*routeAddr* [*routeMask* [route-rd *distinguisher*]]]
[distribute-list *accessListName* |
filter-list *asPathAccessListName* [weight *weightValue*] |
prefix-list *prefixListName* | prefix-tree *prefixTreeName* | route-map *mapTag*]*
[fields { *fieldOptions* }] [*filter*]

Release Information Command introduced before JunosE Release 7.1.0.
route-target signaling keywords added in JunosE Release 8.2.0.

Description Tests BGP policy for routes advertised to or received from peers without implementing the policy. There is no **no** version.

Options

- ipv4 unicast—Specifies the IPv4 unicast address family and routing table; the default option
- ipv4 multicast—Specifies the IPv4 multicast address family and routing table
- vpnv4 all—Specifies the IPv4 VPN address family and all IPv4 VPN routing and forwarding instances
- vpvn4 vrf *vrfName*—Specifies the IPv4 VPN address family and only the IPv4 VPN routing and forwarding instance with the name *vrfName*
- route-target signaling—Specifies the route-target address family
- *ipAddress*—IP address of BGP neighbor
- *ipv6Address*—IPv6 address of BGP neighbor
- *peerGroupName*—Name of a BGP peer group. If you specify a BGP peer group by using the *peerGroupName* argument, all the members of the peer group inherit the characteristic configured with this command, unless it is overridden for a specific peer.
- advertised-routes—Tests only outgoing advertisements to the specified neighbor
- routes—Tests only the incoming advertisements from the specified neighbor
- *routeAddr*—Prefix advertised by BGP
- *routeMask*—Subnet mask associated with prefix; if not specified, a best match on *routeAddr* is performed
- *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

  If not specified, considers all destinations with the same *routeAddress* and *routeMask*.

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- *accessListName*—Name of an access list used as a distribute list to filter routes by prefix; string of up to 32 alphanumeric characters
- *asPathAccessListName*—Name of a single AS path access list used to filter routes by AS path; string of up to 32 characters
- *weightValue*—Weight assigned to incoming routes matched by the AS path access list; integer in the range 0–4294967295
- *prefixListName*—Name of a BGP prefix list used to filter routes by prefix
- *prefixTreeName*—Name of a BGP prefix tree used to filter routes by prefix
- *mapTag*—Name of a route map; a string of up to 32 alphanumeric characters
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line
- fields—Displays only the specified fields; the display order of the fields is hard-coded and not affected by the order in which you enter them
- *fieldOptions*—Fields 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; typically, but not always, this is the label advertised to MP-BGP peers
  - 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

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- next-hop-cost—Whether the indirect next hop of the route is unreachable, if not, displays IGP cost to the indirect next hop
- origin—Origin of the route
- originator-id—Router ID of the router in the local AS that originated the route
- out-label—MPLS label for the route; the label sent with outgoing MPLS frames; also the label received from MP-BGP peer; typically, but not always, this is the label received from MP-BGP peers
- peer—IP address of BGP peer from which route was learned
- peer-type—Type of BGP peer: internal, external, or confederation
- 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

- *filter*—See Filtering show Commands on page 4

Mode Privileged Exec, User Exec

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threshold

Syntax threshold { sd-ber | sf-ber } *rate*

no threshold { sd-ber | sf-ber }

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the threshold values for bit error rates used in APS/MSP alarms. This command applies only to the protect interface, and not to the working interface. The **no** version restores the default value, 5 (for the sd-ber bit error rate) or 3 (for the sf-ber bit error rate), for the specified alarm.

Options

- sd-ber—Bit error rate that specifies signal degradation
- sf-ber—Bit error rate that specifies signal failure
- *rate*—Integer *n* with available values depending on the bit error rate type you specify; a value of *n* corresponds to a rate of 10-*n* (10e-*n*) errors per second
  - For sd-ber, an integer in the range 5–9; default value is 5
  - For sf-ber, an integer in the range 3–5; default value is 3

Mode Controller Configuration

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threshold-test

Syntax threshold-test startup { falling | rising | risingorfalling }

threshold-test absolute-value rising *risingValue* falling *fallingValue*

threshold-test event { rising *eventOwner eventName* | falling *eventOwner eventName* | delta-rising *eventOwner eventName* | delta-falling *eventOwner eventName* }

threshold-test delta-value rising *risingValue* falling *fallingValue*

no threshold-test [startup | absolute-value | delta-value | event rising | event falling | event delta-rising | event delta-falling]

Release Information Command introduced before JunosE Release 7.1.0.

Description Defines the values for an SNMP threshold-test trigger. The **no** version deletes the threshold-test values for this trigger or removes either the threshold startup condition or event binding.

Options

- startup—Startup threshold condition that you predict the sample to follow
  - falling—Specifies that the sample values are expected to be falling values
  - rising—Specifies that the sample values are expected to be rising values
  - risingorfalling—Specifies that the sample values might be either rising values or falling values
- absolute-value—Specifies that the trigger is monitoring absolute threshold values
- *risingValue*—Rising threshold value for the trigger, in the range -2147483648–2147483648
- *fallingValue*—Falling threshold value for the trigger, in the range -2147483648–2147483648
- event—Binds an event owner and name to specific events on which the threshold-test might trigger: rising values within a sample, falling values within a sample, rising values between samples, or falling values between samples
- *eventOwner*—Event owner name; string of up to 32 alphanumeric characters
- *eventName*—Event name; string of up to 32 alphanumeric characters
- delta-value—Specifies that the trigger is monitoring the difference (delta)(between sample values

Mode SNMP Trigger Configuration

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time

Syntax time *seconds*

no time

Release Information Command introduced in JunosE Release 7.2.0.

Description Configures the threshold for the amount of time that the service session can be active for a subscriber. The service is terminated when the time expires. The **no** version removes the time attribute from the service session profile.

Options
- *seconds*—Number of seconds in the range 0–16777251

Mode Service Session Profile Configuration

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timeout

Syntax RADIUS:

timeout *waitTime*

no timeout

RTR:

timeout *timeoutValue*

no timeout

Release Information Command introduced before JunosE Release 7.1.0.

Description When used from RADIUS Configuration mode, specifies the interval, in seconds, before the router retransmits a RADIUS packet to an authentication or accounting server. The **no** version restores the default.

When used from RTR Configuration mode, specifies the timeout for a Response Time Reporter operation. The **no** version returns the operation to the default value. You can apply this parameter only to *echo* entries.

Options

- *waitTime*—Number of seconds in the range 1–1000; default value is 3
- *timeoutValue*—Number in milliseconds that the operation waits for a response; if the value is set to 0 or is larger than frequency, it will be ignored; default value is 5000

Mode RADIUS Configuration, RTR Configuration

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timeout login response

Syntax timeout login response *seconds*

no timeout login response

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets a time limit during which users must provide a password when they log into the console or a vty line. Specifying a value of 0 indicates that there is no time limit during which users must enter a password. The **no** version restores the default value, 30.

Options
- *seconds*—Length of the timeout in the range 0–300 seconds

Mode Line Configuration

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timers

Syntax timers *update invalid holddown flush*

no timers

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures RIP timers. The **no** version restores the default values.

Options

- *update*—Interval in seconds at which routing updates are sent; default value is 30
- *invalid*—Interval in seconds after which a route is declared invalid (null); default value is 180
- *holddown*—Interval in seconds during which routing information regarding better paths is disregarded by the router; default value is 120
- *flush*—Interval in seconds that must pass before a route is removed from the routing table; set this value greater than the invalid value; default value is 300

Mode Address Family Configuration, Router Configuration

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timers bgp

Syntax timers bgp *keepaliveTime holdTime*

no timers bgp [*keepaliveTime* [*holdTime*]]

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets keepalive and hold-time timers for all neighbors. The **no** version restores the default values.

Options

- *keepaliveTime*—Interval in seconds between keepalive messages, in the range 0–65535 seconds; default value is 30; a value of zero prevents BGP from sending keepalive messages
- *holdTime*—Period in seconds that BGP waits for keepalive messages before declaring the neighbor to be unavailable, in the range 0–65535 seconds; default value is 90; a value of zero informs BGP not to expect any hold-time messages

Mode Router Configuration

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timers spf

Syntax [no] timers spf *holdTime*

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the delay time between when OSPF receives a topology change and when it starts an SPF calculation and the hold time between two consecutive SPF calculations. The **no** version restores the default value.

Options
- *holdTime*—Number in the range 1–5 seconds; default value is 3; the hold time between consecutive SPF calculations

Mode Router Configuration

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time-to-live

Syntax time-to-live *ttlValue*

no time-to-live

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies a hop count by setting the value of the time-to-live field used by packets sent to a RIP remote neighbor. The **no** version restores the default value.

Options
- *ttlValue*—Number in the range 1–16; default value is 16

Mode Remote Neighbor Configuration

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timing disable-auto-upgrade

Syntax [no] timing disable-auto-upgrade

Release Information Command introduced before JunosE Release 7.1.0.

Description Disables the autoupgrade feature of the router timing. The system starts out by setting the operational timing selector to the administratively configured selector. For more information, see the timing select command. The **no** version enables the autoupgrade feature.

Mode Global Configuration

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timing select

Syntax timing select *selector*

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the preferred timing selector. There is no **no** version.

NOTE: If you enable the auto-upgrade feature, the system does not try to upgrade beyond the administratively configured selector.

Options

- *selector*—Timing selector; one of the following:
  - primary—Highest-priority preferred selection
  - secondary—Middle-priority preferred selection
  - tertiary—Lowest-priority preferred selection

NOTE: Primary timing source is preferred over secondary, and secondary is preferred over tertiary. For more information, see the timing source command.

Mode Global Configuration

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timing source

Syntax timing source *selector* { internal | line *lineType* | *uidType interfaceSpecifier* }

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the router's timing sources. Only one of these timing sources can be an external source received through an interface on an I/O module other than the SRP I/O module; the other two must be either internal sources or external sources received through the SRP I/O modules. There is no **no** version.

Options

- *selector*—Priority of the timing source; in descending order: **primary**, **secondary**, or **tertiary**
- internal—Specifies the internal SC oscillator
- line—Specifies external timing input on the SRP module
- *lineType*—One of the following timing sources:
  - e1:a—E1 clock, port A on SRP module
  - e1:b—E1 clock, port B on SRP module
  - t1:a—T1 clock, port A on SRP module
  - t1:b—T1 clock, port B on SRP module
- *uidType*—One of the following interfaces:
  - ds1—Specifies a DS1 interface
  - ds3—Specifies a DS3 interface
  - e1—Specifies an E1 interface
  - e3—Specifies an E3 interface
  - sonet—Specifies a SONET interface

NOTE: On the E120 and E320 routers, you can specify sonet for only two of the available three timing sources (primary, secondary, or tertiary).

- *interfaceSpecifier*—Particular interface; in the form *slot/port*[:*subPort*]

Mode Global Configuration

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tos

Syntax tos *tosValue*

no tos

Release Information Command introduced before JunosE Release 7.1.0.

Description Defines a type of service byte in the RTR operation's IP header. The **no** version returns the operation to the default value.

Options
- *tosValue*—ToS byte in the IP header; number in the range 0–255; default value is 0 for both RTR types

Mode RTR Configuration

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trace mpls ip

Syntax trace mpls ip [vrf *vrfName*]
{ *targetIpAddress targetIpv4Mask* | *targetIpv6Prefix* }
[data-size *dataSize*]
[destination *startIpAddress endIpAddress increment*]
[source address *sourceAddr*]
[ttl *ttlValue*] [timeout *timeOutVal*]
[reply mode { ipv4-udp | ipv4-udp-with-router-alert }]
[reply pad-tlv] [reply dscp *trafficClass*]
[exp-bits *bitValue*] [detail]

Release Information Command introduced in JunosE Release 8.0.0.
data-size keyword and *dataSize* variable added in JunosE Release 11.1.0.

Description Sends MPLS echo request packets with successively higher TTL values to the specified IP or IPv6 address. Discovers the path MPLS packets follow to the destination. There is no **no** version.

The MPLS echo request packets and echo reply packets created by this command use the LDP IPv4 sub-TLV described in RFC 4379—Detecting Multi-Protocol Label Switched (MPLS) Data Plane Failures (February 2006).

Options

- *vrfName*—Name of the VRF context; when you specify a VRF name, the LSP to the specified prefix must originate from the VRF because the ping is generated from the specified VRF
- *targetIpAddress*—IP address of the ping target
- *targetIpv4Mask*—Network mask for target IP address
- *targetIpv6Prefix*—IPv6 address of the ping target
- *dataSize*—Size of the LSP ping message (does not include the UDP, IP, and MPLS headers of the packet); in the range 0–6400 bytes. The default value is 100 bytes.
- *startIpAddress*—First IP address within the 127.0.0.0/8 destination range
- *endIpAddress*—Last IP address within the 127.0.0.0/8 destination range
- *increment*—Number in the range 0–255 that specifies the increment between addresses in the destination address range
- *sourceAddr*—IP address used as the packet source address
- *ttlValue*—Hop count specified by setting the time-to-live field in the header, in the range 1–255; default value is 32
- *timeOutVal*—Number of seconds in the range 1–32 to wait for an MPLS echo reply packet before the connection attempt times out
- reply mode—Specifies the reply mode for the echo request packet
  - ipv4-udp—Specifies that the echo request packet is an IPv4 UDP packet

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    - ipv4-udp-with-router-alert—Specifies that the echo request packet is an IPv4 UDP packet with the router alert bit set in the header so all routers examine this packet more closely to determine whether further processing is necessary
  - reply pad-tlv—Requests sender of an echo reply to send a pad TLV
  - *trafficClass*—Number in the range 0–255 that represents the value of the traffic class that the sender of an echo reply is requested to set
  - *bitValue*—Value of the EXP bits in the range 0–7 included in the MPLS echo request packet
  - detail—Displays detailed information about MPLS echo request sent and echo replies received

Mode Privileged Exec, User Exec

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trace mpls l2transport

Syntax

trace mpls l2transport [vrf *vrfName*]
{ *interfaceType interfaceSpecifier* }
[data-size *dataSize*]
[destination *startIpAddress endIpAddress increment*]
[source address *sourceAddr*]
[ttl *ttlValue*] [timeout *timeOutVal*]
[reply mode { ipv4-udp | ipv4-udp-with-router-alert }]
[reply pad-tlv] [reply dscp *trafficClass*]
[exp-bits *bitValue*] [bottom-label-ttl *bottomLabelTtl*] [detail]

Release Information

Command introduced in JunosE Release 8.0.0.
data-size keyword and *dataSize* variable added in JunosE Release 11.1.0.

Description

Sends MPLS echo request packets with successively higher TTL values to the specified layer 2 cross-connect virtual (Martini) circuit. Discovers the path MPLS packets follow to the destination. There is no **no** version.

The echo request packet generated by this command contains the FEC 128 Pseudowire (Current) sub-TLV described in RFC 4379—Detecting Multi-Protocol Label Switched (MPLS) Data Plane Failures (February 2006).

NOTE: **This command is not supported for local cross-connects because local cross-connects do not employ an LSP.**

Options

- *vrfName*—Name of the VRF context
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *dataSize*—Size of the LSP ping message (does not include the UDP, IP, and MPLS headers of the packet); in the range 0–6400 bytes. The default value is 100 bytes.
- *startIpAddress*—First IP address within the 127.0.0.0/8 destination range
- *endIpAddress*—Last IP address within the 127.0.0.0/8 destination range
- *increment*—Number in the range 0–255 that specifies the increment between addresses in the destination address range
- *sourceAddr*—IP address used as the packet source address
- *ttlValue*—Hop count specified by setting the time-to-live field in the header, in the range 1–255; default value is 32; however, by default, the TTL on the inner (stacked) label is set to 1 while transmitting the echo request packet, which causes the packet to be exceptioned to the SRP module when the stacked label is exposed

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- *timeOutVal*—Number of seconds in the range 1–32 to wait for an MPLS echo reply packet before the connection attempt times out
- reply mode—Specifies the reply mode for the echo request packet
  - ipv4-udp—Specifies that the echo request packet is an IPv4 UDP packet
  - ipv4-udp-with-router-alert—Specifies that the echo request packet is an IPv4 UDP packet with the router alert bit set in the header so all routers examine this packet more closely to determine whether further processing is necessary
- reply pad-tlv—Requests sender of an echo reply to send a pad TLV
- *trafficClass*—Number in the range 0–255 that represents the value of the traffic class that the sender of an echo reply is requested to set
- *bitValue*—Value of the EXP bits in the range 0–7 included in the MPLS echo request packet
- *bottomLabelTtl*—Time-to-live value of the bottom label in the stack
- detail—Displays detailed information about MPLS echo request sent and echo replies received

Mode Privileged Exec, User Exec

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trace mpls l3vpn

Syntax trace mpls l3vpn [vrf *vrfName*]
{ *targetAddress targetMask* | *targetIpv6Prefix* }
[data-size *dataSize*]
[destination *startIpAddress endIpAddress increment*]
[source address *sourceAddr*]
[ttl *ttlValue*] [timeout *timeOutVal*]
[reply mode { ipv4-udp | ipv4-udp-with-router-alert }]
[reply pad-tlv] [reply dscp *trafficClass*]
[exp-bits *bitValue*] [bottom-label-ttl *bottomLabelTtl*] [detail]

Release Information Command introduced in JunosE Release 8.0.0.
data-size keyword and *dataSize* variable added in JunosE Release 11.1.0.

Description Sends MPLS echo request packets with successively higher TTL values to the specified L3VPN IP or IPv6 prefix. Discovers the path MPLS packets follow to the destination. There is no **no** version.

The echo request packet generated by this command contains either the VPN IPv4 sub-TLV or VPN IPv6 sub-TLV described in RFC 4379—Detecting Multi-Protocol Label Switched (MPLS) Data Plane Failures (February 2006). Which sub-TLV is included depends on whether the trace is intended for an IPv4 prefix or an IPv6 prefix.

You can use this command to send a request to a VPNv4 prefix in the specified VRF. If you do not specify a VRF, then you must issue the command from the VRF context. In either case, the trace originates from the parent router.

Options

- *vrfName*—Name of the VRF context
- *targetAddress*—IP address of the target VPN network
- *targetMask*—Netmask for the target address
- *targetIpv6Prefix*—IPv6 prefix for the target VPN network
- *dataSize*—Size of the LSP ping message (does not include the UDP, IP, and MPLS headers of the packet); in the range 0–6400 bytes. The default value is 100 bytes.
- *startIpAddress*—First IP address within the 127.0.0.0/8 destination range
- *endIpAddress*—Last IP address within the 127.0.0.0/8 destination range
- *increment*—Number in the range 0–255 that specifies the increment between addresses in the destination address range
- *sourceAddr*—IP address used as the packet source address
- *ttlValue*—Hop count specified by setting the time-to-live field in the header, in the range 1–255; default value is 32
- *timeOutVal*—Number of seconds in the range 1–32 to wait for an MPLS echo reply packet before the connection attempt times out

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- reply mode—Specifies the reply mode for the echo request packet
  - ipv4-udp—Specifies that the echo request packet is an IPv4 UDP packet
  - ipv4-udp-with-router-alert—Specifies that the echo request packet is an IPv4 UDP packet with the router alert bit set in the header so all routers examine this packet more closely to determine whether further processing is necessary
- reply pad-tlv—Requests sender of an echo reply to send a pad TLV
- *trafficClass*—Number in the range 0–255 that represents the value of the traffic class that the sender of an echo reply is requested to set
- *bitValue*—Value of the EXP bits in the range 0–7 included in the MPLS echo request packet
- *bottomLabelTtl*—Time-to-live value of the bottom label in the stack
- detail—Displays detailed information about MPLS echo request sent and echo replies received

Mode Privileged Exec, User Exec

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trace mpls rsvp tunnel

Syntax trace mpls { traffic-eng | rsvp } [vrf *vrfName*] tunnel *tunnelName*
[destination *startIpAddress endIpAddress increment*]
[data-size *dataSize*]
[source address *sourceAddr*]
[ttl *ttlValue*] [timeout *timeOutVal*]
[reply mode { ipv4-udp | ipv4-udp-with-router-alert }]
[reply pad-tlv] [reply dscp *trafficClass*]
[exp-bits *bitValue*] [detail]

Release Information Command introduced in JunosE Release 8.0.0.
data-size keyword and *dataSize* variable added in JunosE Release 11.1.0.

Description Sends MPLS echo request packets with successively higher TTL values to the specified RSVP-TE tunnel. Discovers the path MPLS packets follow to the destination. There is no **no** version.

The MPLS echo request packets and echo reply packets created by this command use the RSVP IPv4 sub-TLV described in RFC 4379—Detecting Multi-Protocol Label Switched (MPLS) Data Plane Failures (February 2006).

Options

- traffic-eng—Specifies optional keyword for compatibility with non–E Series implementations
- *vrfName*—Name of the VRF context; specify the VRF only when the RSVP-TE tunnel originates in the VRF because the ping is generated from the specified VRF
- *tunnelName*—Name of the RSVP-TE tunnel; can be a bypass tunnel
- *startIpAddress*—First IP address within the 127.0.0.0/8 destination range
- *endIpAddress*—Last IP address within the 127.0.0.0/8 destination range
- *increment*—Number in the range 0–255 that specifies the increment between addresses in the destination address range
- *dataSize*—Size of the LSP ping message (does not include the UDP, IP, and MPLS headers of the packet); in the range 0–6400 bytes. The default value is 100 bytes.
- *sourceAddr*—IP address used as the packet source address
- *ttlValue*—Hop count specified by setting the time-to-live field in the header, in the range 1–255; default value is 32
- *timeOutVal*—Number of seconds in the range 1–32 to wait for an MPLS echo reply packet before the connection attempt times out
- reply mode—Specifies the reply mode for the echo request packet
  - ipv4-udp—Specifies that the echo request packet is an IPv4 UDP packet
  - ipv4-udp-with-router-alert—Specifies that the echo request packet is an IPv4 UDP packet with the router alert bit set in the header so all routers examine this packet more closely to determine whether further processing is necessary

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- reply pad-tlv—Requests sender of an echo reply to send a pad TLV
- *trafficClass*—Number in the range 0–255 that represents the value of the traffic class that the sender of an echo reply is requested to set
- *bitValue*—Value of the EXP bits in the range 0–7 included in the MPLS echo request packet
- detail—Displays detailed information about MPLS echo request sent and echo replies received

Mode Privileged Exec, User Exec

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trace mpls vpls

Syntax trace mpls vpls [vrf *vrfName*] *vplsName*
[sender-site-id *senderSiteId*] remote-site-id *remoteSiteId*
[data-size *dataSize*]
[destination *startIpAddress endIpAddress increment*
]
[source address *sourceAddr*]
[ttl *ttlValue*] [timeout *timeOutVal*]
[reply mode { ipv4-udp | ipv4-udp-with-router-alert }]
[reply pad-tlv] [reply dscp *trafficClass*]
[exp-bits *bitValue*] [bottom-label-ttl *bottomLabelTtl*] [detail]

Release Information Command introduced in JunosE Release 8.0.0.
data-size keyword and *dataSize* variable added in JunosE Release 11.1.0.

Description Sends MPLS echo request packets with successively higher TTL values to the specified VPLS instance. Discovers the path MPLS packets follow to the destination. There is no **no** version.

The MPLS echo request packets and echo reply packets created by this command use the L2 endpoint sub-TLV described in RFC 4379—Detecting Multi-Protocol Label Switched (MPLS) Data Plane Failures (February 2006).

Options

- *vrfName*—Name of the VRF context from which to generate the ping
- *vplsName*—Name of a VPLS instance created with the bridge vpls transport-virtual-router command
- *senderSiteId*—Numerical identifier for the site sending the MPLS echo request packet; must be an unsigned 16-bit integer greater than zero that is unique across the VPLS domain
- *remoteSiteId*—Numerical identifier for the site receiving the MPLS echo request packet; must be an unsigned 16-bit integer greater than zero that is unique across the VPLS domain
- *dataSize*—Size of the LSP ping message (does not include the UDP, IP, and MPLS headers of the packet); in the range 0–6400 bytes. The default value is 100 bytes. You can use this option to enable the pad TLV to be added to the MPLS LSP ping message (echo request), which results in the future MPLS LSP ping echo requests to be of the same specified number of bytes.
- *startIpAddress*—First IP address within the 127.0.0.0/8 destination range
- *endIpAddress*—Last IP address within the 127.0.0.0/8 destination range
- *increment*—Number in the range 0–255 that specifies the increment between addresses in the destination address range
- *sourceAddr*—IP address used as the packet source address

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- *ttlValue*—Hop count specified by setting the time-to-live field in the header, in the range 1–255; default value is 32; however, by default, the TTL on the inner (stacked) label is set to 1 while transmitting the echo request packet, which causes the packet to be exceptioned to the SRP module when the stacked label is exposed
- *timeOutVal*—Number of seconds in the range 1–32 to wait for an MPLS echo reply packet before the connection attempt times out
- reply mode—Specifies the reply mode for the echo request packet
  - ipv4-udp—Specifies that the echo request packet is an IPv4 UDP packet
  - ipv4-udp-with-router-alert—Specifies that the echo request packet is an IPv4 UDP packet with the router alert bit set in the header so all routers examine this packet more closely to determine whether further processing is necessary
- reply pad-tlv—Requests sender of an echo reply to send a pad TLV
- *trafficClass*—Number in the range 0–255 that represents the value of the traffic class that the sender of an echo reply is requested to set
- *bitValue*—Value of the EXP bits in the range 0–7 included in the MPLS echo request packet
- *bottomLabelTtl*—Time-to-live value of the bottom label in the stack
- detail—Displays detailed information about MPLS echo request sent and echo replies received

Mode Privileged Exec, User Exec

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traceroute

Syntax

traceroute [vrf *vrfName*] *destination* [ttl *maxTTLCount*]
[timeout *timeOutVal*] [data-size *sizeValue*]
[source { interface *interfaceType interfaceSpecifier* | address *sourceAddress* }]
[extended [tos *tosVal*] [set-dont-fragment-bit] [interface *iType iNumber*]

traceroute ipv6 [vrf *vrfName*] *destination* [hop-limit *hopLimit*]
[timeout *timeOutVal*][data-size *sizeValue*] [source { interface *interfaceType interfaceSpecifier* |
address *sourceAddress* }] [extended [dscp *trafficClass*] [flow-label *flowLabel*]]

Release Information

Command introduced before JunosE Release 7.1.0.
vrf keyword and *vrfName* variable added to IPv6 version in JunosE Release 7.2.0.

Description

Discovers the paths that router packets follow when traveling to their destinations. There is no **no** version.

Options

- *vrfName*—Name of the VRF context; string of 1–32 alphanumeric characters
- ipv6—Specifies the destination address as IPv6 format
- *destination*—IP address, IPv6 address, or domain name of the trace
- *hopLimit*—Maximum number of hops of the trace in the range 1–255; default value is 32
- *maxTTLCount*—Maximum number of hops of the trace in the range 1–255; default value is 32
- *timeOutVal*—Time in seconds to wait for trace responses in the range 1–20; default value is 2
- *sizeValue*—Number of bytes comprising the IP packet and reflected in the IP header in the range 0–64000
- source interface—Specifies an interface as the source for the transmitted packets
  - *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
  - *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- source address—Specifies an IP address as source for the transmitted packets
  - *sourceAddress*—IP address or domain name used as the source address
- extended—Specifies extended IP header attributes
  - *tosVal*—Value of the ToS byte
  - set-dont-fragment-bit—Specifies the don't-fragment bit
  - *iType*—Interface type
  - *iNumber*—Interface location

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- *trafficClass*—Specifies the traffic class value to match in the Traffic Class field of each IPv6 packet header, in the range 1–255
- *flowLabel*—Specifies the flow label value to match in the Flow Label field of each IPv6 packet header, in the range 1–1048576

Mode Privileged Exec, User Exec

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track

Syntax track *objectName* [vrf *vrfName*] ip-route *ipPrefix* reachability

no track *objectName*

Release Information Command introduced in JunosE Release 7.2.0.

Description Specifies the name of an object you want to track and tracks the reachability of that object by its IPv4 prefix. The **no** version deletes the object and stops tracking for that object.

Options

- *objectName*—Name of the object you want to track; string of 1–32 alphanumeric characters

NOTE: The name of the object must be unique for the chassis.

- *vrfName*—Name of the VRF on which the object resides; string of 1–32 alphanumeric characters
- *ipPrefix*—IP prefix (address and subnetwork mask) of the object you want to track

Mode Global Configuration

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traffic-class

Syntax

In Classifier Group Configuration mode:

[no] [suspend] traffic-class *trafficClassName1*

In Global Configuration and Traffic Class Group Configuration modes:

[no] traffic-class *trafficClassName2*

Release Information

Command introduced before JunosE Release 7.1.0.

Description

In Classifier Group Configuration mode, specifies a traffic class in a policy list for policy management. The **no** version removes a traffic class from a 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 **traffic-class** command, which may be removed completely in a future release.

In Global Configuration mode, configures a traffic class in the E Series router. In Traffic Class Group Configuration mode, specifies a traffic class that belongs to the traffic-class group. The **no** version deletes the traffic class.

Options

- *trafficClassName1*—Name of the traffic class; up to 40 characters
- *trafficClassName2*—Name of the traffic class; up to 31 characters

Mode

Classifier Group Configuration, Global Configuration, Traffic Class Group Configuration

Related Documentation

- Configuring Traffic Classes That Define Service Levels
- Configuring Traffic-Class Groups That Define Service Levels
- Policy Rule Precedence

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traffic-class-group

Syntax [no] traffic-class-group *trafficClassGroupName*
[slot *slotNumber* | auto-strict-priority | extended]

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures a traffic-class group. The **no** version deletes the selected traffic-class group. You must remove all local (slot-based) instances of a traffic-class group before you can remove the global group.

Options

- *trafficClassGroupName*—Name of the traffic class group; up to 31 characters
- *slotNumber*—Number of the slot associated with the group, in the range 0—17
- auto-strict-priority—Specifies strict-priority scheduling for the group, regardless of whether the scheduler profile associated with the group node specifies strict-priority scheduling. Only one auto-strict-priority group can exist; this is the default behavior for a group.
- extended—Specifies that strict-priority scheduling for the group is determined by the scheduler profile associated with the group node; scheduling is either hierarchical round-robin or strict priority, but if a strict-priority traffic-class group already exists, this group must scheduled via HRR

Mode Global Configuration

Related Documentation

- Configuring Traffic Classes That Define Service Levels
- Configuring Traffic-Class Groups That Define Service Levels
- Configuring QoS for an L2TP Session

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transform

Syntax transform *transform0*
[*transform1* [*transform2* [*transform3* [*transform4* [*transform5*]]]]]

no transform

Release Information Command introduced in JunosE Release 7.3.0.

Description Specifies the eligible transforms for this profile for IPsec source address negotiations. You can specify up to six transform algorithms for this profile. The **no** version resets the transform to the default, esp-3des-sha1.

Options
- *transform0* through *transform5*—AH or ESP transform

Mode IPsec Tunnel Profile Configuration

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transform-set

Syntax transform-set *transform0*
[*transform1* [*transform2* [*transform3* [*transform4* [*transform5*]]]]]

no transform-set

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the transform set(s) that an IPsec transport connection can use to negotiate a transform algorithm. You can specify up to six transform algorithms. The **no** version resets the transform to the default, esp-3des-hmac-sha.

Options
- *transform0* through *transform5*—AH or ESP transform; use the online Help to view available transforms

Mode IPsec Transport Profile Configuration

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translate

Syntax translate *domainName mappedDomainName*

no translate *domainName*

Release Information Command introduced before JunosE Release 7.1.0.

Description Maps the original domain name to the mapped domain name for domain map lookup. The **no** version negates the command.

Options
- *domainName*—Name of the domain; maximum of 64 characters
- *mappedDomainName*—Name of the mapped domain name; maximum of 64 characters

Mode AAA Profile Configuration

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transmit-delay

Syntax transmit-delay *transmDelay*

no transmit-delay

Release Information Command introduced before JunosE Release 7.1.0.

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

Options
- *transmDelay*—Link-state transmit delay in seconds; a number in the range 0–3600; default value is 1

Mode Remote Neighbor Configuration

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traps

Syntax For OSPFv2:

[no] traps { all | { { virtIfStateChange | nbrStateChange | virtNbrStateChange | ifConfigError | virtIfConfigError | ifAuthFailure | virtIfAuthFailure | ifRxBadPkt | virtIfRxBadPkt | txRetransmit | virtTxRetransmit | originateLsa | maxAgeLsa | ifStateChange } [virtIfStateChange | nbrStateChange | virtNbrStateChange | ifConfigError | virtIfConfigError | ifAuthFailure | virtIfAuthFailure | ifRxBadPkt | virtIfRxBadPkt | txRetransmit | virtTxRetransmit | originateLsa | maxAgeLsa | ifStateChange]* } }

For OSPFv3:

[no] traps { all | [ospfv3IfStateChange | ospfv3VirtIfStateChange | ospfv3NbrStateChange |ospfv3VirtNbrStateChange | ospfv3IfConfigError | ospfv3VirtIfConfigError | ospfv3IfRxBadPacket | ospfv3VirtIfRxBadPacket | ospfv3LsdbOverflow | ospfv3LsdbApproachingOverflow | ospfv3NssaTranslatorStatusChange | ospfv3RestartStatusChange | ospfv3NbrRestartHelperStatusChange | ospfv3VirtNbrRestartHelperStatusChange]* }

Release Information Command introduced before JunosE Release 7.1.0.
OSPFv3 version added in JunosE Release 14.1.0

Description Specifies OSPF or OSPFv3 trap settings. The **no** version removes all OSPF or OSPFv3 trap settings or any specified traps.

Options

- all—Enables all OSPF or OSPFv3 traps
- virtIfStateChange—Sets a trap to indicate a state change on an OSPF virtual interface
- nbrStateChange—Sets a trap to indicate a state change on a nonvirtual OSPF neighbor
- virtNbrStateChange—Sets a trap to indicate a state change on a virtual OSPF neighbor
- ifConfigError—Sets a trap to indicate a configuration mismatch with a nonvirtual neighbor
- virtIfConfigError—Sets a trap to indicate a configuration mismatch with a virtual neighbor
- ifAuthFailure—Sets a trap to indicate an authentication failure on a nonvirtual interface
- virtIfAuthFailure—Sets a trap to indicate an authentication failure on a virtual interface
- ifRxBadPkt—Sets a trap to indicate that a packet has been received that cannot be parsed
- virtIfRxBadPkt—Sets a trap to indicate that a packet has been received on a virtual interface that cannot be parsed
- txRetransmit—Sets a trap to indicate that a packet has been retransmitted on a nonvirtual interface
- virtTxRetransmit—Sets a trap to indicate that a packet has been retransmitted on a virtual interface

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- originateLsa—Sets a trap to indicate that a new LSA has been originated by this router
- maxAgeLsa—Sets a trap to indicate that an LSA in this router LSDB has reached MaxAge
- ifStateChange—Sets a trap to indicate a state change on an OSPF interface
- ospfv3IfStateChange—Sets a trap to indicate a state change on a nonvirtual OSPFv3 interface
- ospfv3VirtIfStateChange—Sets a trap to indicate a state change on an OSPFv3 virtual interface

NOTE: This trap is not supported because virtual links are not supported for OSPFv3. A warning message is displayed when this trap is enabled.

- ospfv3NbrStateChange—Sets a trap to indicate a state change on a nonvirtual OSPFv3 neighbor
- ospfv3VirtNbrStateChange—Sets a trap to indicate a state change on a virtual OSPFv3 neighbor

NOTE: This trap is not supported because virtual links are not supported for OSPFv3. A warning message is displayed when this trap is enabled.

- ospfv3IfConfigError—Sets a trap to indicate that a packet has been received on a nonvirtual interface from a neighboring router whose configuration parameters conflict with that of the router containing the nonvirtual interface
- ospfv3VirtIfConfigError—Sets a trap to indicate that a packet has been received on a virtual interface from a neighboring router whose configuration parameters conflict with that of the router containing the virtual interface

NOTE: This trap is not supported because virtual links are not supported for OSPFv3. A warning message is displayed when this trap is enabled.

- ospfv3IfRxBadPacket—Sets a trap to indicate that an OSPFv3 packet that cannot be parsed has been received on a nonvirtual interface
- ospfv3VirtIfRxBadPacket—Sets a trap to indicate that an OSPFv3 packet that cannot be parsed has been received on a virtual interface

NOTE: This trap is not supported because virtual links are not supported for OSPFv3. A warning message is displayed when this trap is enabled.

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- ospfv3LsdbOverflow—Sets a trap to indicate that the number of LSAs in the router's link state database has exceeded ospfv3ExtAreaLsdbLimit
- ospfv3LsdbApproachingOverflow—Sets a trap to indicate that the number of LSAs in the router's link state database has exceeded ninety percent of ospfv3ExtAreaLsdbLimit
- ospfv3NssaTranslatorStatusChange—Sets a trap to indicate a change in the router's ability to translate OSPFv3 NSSA LSAs into OSPFv3 External LSAs
- ospfv3RestartStatusChange—Sets a trap to indicate a change in the graceful restart state of the router
- ospfv3NbrRestartHelperStatusChange—Sets a trap to indicate a change in the graceful restart helper state of the neighbor
- ospfv3VirtNbrRestartHelperStatusChange—Sets a trap to indicate a change in the graceful restart helper state of the virtual neighbor

NOTE: This trap is not supported because virtual links are not supported for OSPFv3. A warning message is displayed when this trap is enabled.

- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Router Configuration

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trigger

Syntax trigger *triggerOwner triggerName*

Release Information Command introduced before JunosE Release 7.1.0.

Description Creates an event and launches the event configuration mode in the SNMP server event manager. The **no** version removes the trigger.

Options
- *triggerOwner*—Owner associated with this trigger; string of up to 32 alphanumeric characters
- *triggerName*—Name associated with this trigger; string of up to 32 alphanumeric characters

Mode SNMP Event Manager Configuration

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trigger delay

Syntax trigger delay msec *delayTime*

no trigger delay

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the time duration used to determine when a SONET/SDH defect at the line or section layer becomes an alarm. The **no** version restores the default setting, 2500 milliseconds.

Options
- *delayTime*—Time in the range 0–2500 milliseconds

Mode Controller Configuration

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triggered-update-disable

Syntax [no] triggered-update-disable

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies that RIP does not send triggered routing updates. The **no** version restores the default condition, wherein RIP does send triggered updates.

Mode Address Family Configuration, Router Configuration

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ttl

Syntax ttl *ttlValue*

no ttl

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies a hop count by setting the value of the time-to-live field used by packets sent to an OSPF remote neighbor. The **no** version restores the default value.

Options
- *ttlValue*—Number in the range 1–255; default value is 1

Mode Remote Neighbor Configuration

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tunnel

Syntax [no] tunnel *tag*

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies an L2TP tunnel and changes the mode to Domain Map Tunnel Configuration. In Domain Map Tunnel Configuration mode, you can set the attributes of the tunnel. The **no** version deletes the L2TP tunnel configuration from the router.

From Tunnel Group Configuration mode, adds up to 31 tunnel definitions to the L2TP tunnel group and changes the mode to Tunnel Group Tunnel Configuration mode. In Tunnel Group Tunnel Configuration mode, you can set tunnel attributes. The **no** version deletes the L2TP tunnel group configuration from the router.

Options
- *tag*—Number in the range 1–31

Mode Domain Map Configuration, Tunnel Group Configuration

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tunnel checksum

Syntax [no] tunnel checksum

Release Information Command introduced before JunosE Release 7.1.0.
IP Tunnel Destination Profile Configuration mode added in JunosE Release 8.2.0.

Description In Interface Configuration mode, enables end-to-end checksum computation for static GRE tunnels.

In IP Tunnel Destination Profile Configuration mode, enables end-to-end checksum computation for dynamic GRE tunnels. The **no** version disables the checksum option.

Mode Interface Configuration, IP Tunnel Destination Profile Configuration

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tunnel destination

Syntax For DVMRP and GRE in Interface Configuration mode:

tunnel destination { *ipAddress1* | *hostname* }

no tunnel destination

For DVMRP and GRE in IP Tunnel Destination Profile Configuration mode:

tunnel destination { subnet *ipAddress2 mask* | range *ipAddressLow ipAddressHigh* }

For IPsec:

tunnel destination { *ipAddress3* | identity *fqdn* }

no tunnel destination

For MPLS in Interface Configuration mode:

tunnel destination *ipAddress4*

no tunnel destination

For MPLS in Tunnel Profile Configuration mode:

[no] tunnel destination
{ { isis-level-2 | ospf-bdr } [{ access-list | prefix-list } *listName*] |
{ *ipAddress* [*ipAddress4*]* }

Release Information Command introduced before JunosE Release 7.1.0.
IP Tunnel Destination Profile Configuration mode added in JunosE Release 8.2.0.

Description For DVMRP or GRE in Interface Configuration mode, configures the tunnel endpoint for static tunnels. The **no** version deletes the endpoint.

For DVMRP or GRE in IP Tunnel Destination Profile Configuration mode, configures the tunnel endpoint for dynamic tunnels. The **no** version deletes the endpoint.

For IPsec, configures the remote tunnel endpoint. You can identify the remote peer by either IP address or fully qualified domain name (FQDN). The **no** version deletes the endpoint.

For MPLS in Interface Configuration mode, configures the tunnel endpoint for static MPLS tunnels. The **no** version deletes the endpoint.

For MPLS in Tunnel Profile Configuration mode, configures the source of tunnel endpoints (destinations) within a tunnel profile. You can specify that the endpoints are to be learned from IS-IS or OSPF so that tunnels are created when the destinations are learned from the specified IGP, or you can provide one or more IP addresses as the endpoint(s) so that tunnels are created as soon as the destination addresses are configured. If you specify the destination address, it must be the address of the MPLS interface or the router ID of the destination router. The **no** version deletes the endpoints.

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Options

- *ipAddress1*—IP address of the interface on the remote router
- *hostname*—Name of the host to serve as the tunnel endpoint
- *ipAddress2*—IP address of the tunnel destination address subnet
- *mask*—IP mask of the tunnel destination address subnet
- *ipAddressLow*—First IP address in a destination address range
- *ipAddressHigh*—Last IP address in a destination address range
- *ipAddress3*—IP address of the interface on the remote router or the router ID of the destination router that serves as the tunnel endpoint
- *fqdn*—Fully qualified domain name of the interface on the remote router that serves as the tunnel endpoint; a maximum of 80 characters
- isis-level-2—Specifies IS-IS level-2 routers as acceptable destinations
- ospf-bdr—Specifies OSPF border routers as acceptable destinations
- *listName*—Name of access list or prefix list that contains the IP addresses that are acceptable as tunnel endpoints
- *ipAddress4*—IP address of the interface on the remote router or the router ID of the destination router that serves as the tunnel endpoint; for a tunnel profile, you can list multiple addresses
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Interface Configuration, IP Tunnel Destination Profile Configuration, Tunnel Profile Configuration

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tunnel destination backup

Syntax tunnel destination backup [*ipAddress* | identity *fqdn*]

no tunnel destination backup

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures a backup tunnel destination for the remote IPsec tunnel endpoint. The backup tunnel is used when the IPsec tunnel destination is detected as unreachable by DPD. You can use either the IP address or fully qualified domain name (FQDN) to identify the backup tunnel; however, you must use the same type of identity that is used for the regular tunnel destination. The **no** version restores the default, in which the regular tunnel destination is also the backup tunnel destination.

Options

- *ipAddress*—IP address of the interface on the destination router that serves as the backup IPsec tunnel endpoint
- *fqdn*—Fully qualified domain name of the interface on the destination router that serves as the backup IPsec tunnel endpoint; a maximum of 80 characters

Mode Interface Configuration

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tunnel group

Syntax tunnel group *tunnelGroupName*

no tunnel group

Release Information Command introduced before JunosE Release 7.1.0.

Description Assigns the specified tunnel group to the domain map. The **no** version deletes the tunnel group.

NOTE: By default, no tunnel group is assigned to the domain map. You can assign a tunnel group to the domain map only if tunnels are not currently defined for the domain map in Domain Map Tunnel mode.

Options

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

Mode Domain Map Configuration

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tunnel group-address-pool

Syntax tunnel group-address-pool [*poolName*]

no tunnel group-address-pool

Release Information Command introduced in JunosE Release 8.2.0.

Description Configures a group address pool for a data MDT tunnel. The **no** version deletes the group address pool.

Options
- *poolName*—Name of the group address pool

Mode IP PIM Data MDT Configuration

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tunnel ip profile

Syntax tunnel ip profile *ipProfileId*

no tunnel ip profile

Release Information Command introduced before JunosE Release 7.1.0.

Description Assigns an IP profile to the MPLS tunnel. The **no** version removes the IP profile from the tunnel. The **no mpls tunnels profile** command deletes the IP profile.

Options
- *ipProfileId*—Name of an IP profile

Mode Tunnel Profile Configuration

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tunnel lifetime

Syntax tunnel lifetime { kilobytes *KB* | seconds *secs* | seconds *secs* kilobytes *KB* }

no tunnel lifetime { seconds | kilobytes }

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the lifetime of IPsec SAs running on this tunnel. You can specify the lifetime in seconds and/or volume of traffic. Before either limit is reached, the SA is renegotiated, ensuring that the tunnel does not go down before the renegotiation is finished. The **no** version sets the lifetime to the default lifetime of 28800 seconds and an unlimited volume.

Options

- *secs*—Number of seconds security SAs on this tunnel live before expiring, in the range 1800–864000
- *KB*—Volume of traffic in kilobytes that can pass between the tunnel endpoints using a given SA before the SA expires, in the range 102400–4294967295

Mode Interface Configuration

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tunnel local-identity

Syntax tunnel local-identity { address *ipAddress* | subnet *ipAddress subnetMask* | range *ipAddressLow ipAddressHigh* }

no tunnel local-identity

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the local identity of the IPsec tunnel. The **no** version removes the local endpoint and sets the default identity, which is subnet 0.0.0.0 0.0.0.0.

Options

- *ipAddress*—IP address of the local identity
- *subnetMask*—Mask applied to the subnet IP address of the local identity
- *ipAddressLow*—Lower bound of the range of IP addresses of the local identity
- *ipAddressHigh*—Upper bound of the range of IP addresses of the local identity

Mode Interface Configuration

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tunnel mdt

Syntax [no] tunnel mdt

Release Information Command introduced before JunosE Release 7.1.0.

Description Enables multicast distribution tree operation by allowing the IP tunnel component to create an MDT interface. This command functions for static GRE and DVMRP tunnel interfaces only. The **no** version disables MDT on the interface.

Mode Interface Configuration

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tunnel mdt profile

Syntax [no] tunnel mdt profile *profileName*

Release Information Command introduced in JunosE Release 8.2.0.

Description Enables multicast distribution tree operation by enabling the IP tunnel component to create an MDT interface. This command also defines an IP profile with parameters that are used to stack an upper IP interface over a dynamic GRE or DVMRP tunnel. This command functions for dynamic GRE and DVMRP tunnel interfaces only. The **no** version disables MDT on the interface.

Options
- *profileName*—Profile name of up to 80 characters

Mode IP Tunnel Destination Profile Configuration

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tunnel mpls affinity

Syntax tunnel mpls [traffic-eng] affinity *affinity* [mask *mask*]

no tunnel mpls [traffic-eng] affinity

Release Information Command introduced before JunosE Release 7.1.0.

Description Assigns an affinity to the tunnel that specifies the class of resources—resource attributes—associated with the tunnel. The **no** version removes the affinity from the tunnel.

Options

- traffic-eng—Specifies optional keyword for compatibility with non–E Series implementations
- *affinity*—Attributes that must be configured on the interface in order to be considered by the tunnel; in the range 0x0–0xFFFFFFFF; default value is 0x0
- *mask*—Mask to identify attributes to be checked and therefore the attribute flags that a link (interface) must have in order to be used by a tunnel: a 1 signifies that the attribute value must match the tunnel's corresponding affinity bit; a 0 signifies that the attribute value does not matter and does not have to match the tunnel's affinity bit; in the range 0x0–0xFFFFFFFF; default value is 0x0000FFFF

Mode Interface Configuration, Tunnel Profile Configuration

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tunnel mpls autoroute announce

Syntax [no] tunnel mpls [traffic-eng] autoroute announce [ospf | isis]

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures the LSP tunnel to register its endpoint (the egress router) with the configured routing protocol so that the protocol can use the tunnel to determine routes. If you do not specify a routing protocol, the default is both IS-IS and OSPF. The **no** version disables endpoint announcements.

Options

- traffic-eng—Specifies optional keyword for compatibility with non–E Series implementations
- ospf—Endpoint is announced to OSPF
- isis—Endpoint is announced to IS-IS

Mode Interface Configuration, Tunnel Profile Configuration

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tunnel mpls autoroute metric

Syntax tunnel mpls [traffic-eng] autoroute metric { absolute | relative } *metricValue*

no tunnel mpls [traffic-eng] autoroute metric

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the tunnel metric. The value determines tunnel preference when there is more than one tunnel or native IP path to a tunnel endpoint. A lower value is preferred to a higher value. When you set up multiple tunnels, if the primary tunnel goes down, the existing tunnel with the lowest metric is used immediately. If you specify an absolute value from 1–2147483647, this value overrides the metric for the path provided by the IGP. If you specify a relative value from –10 to +10, this value is subtracted from (–) or added to (+) the metric for the path provided by the IGP. The **no** version restores the default value, relative 0, meaning that the tunnel metric is the IGP value.

Options

- traffic-eng—Specifies optional keyword for compatibility with non–E Series implementations
- absolute—Specifies that the metric is an absolute value
- relative—Specifies that the metric is a signed relative value
- *metricValue*—Preference value for a path; absolute values are in the range 1–2147483647; relative values are in the range –10–+10

Mode Interface Configuration, Tunnel Profile Configuration

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tunnel mpls bandwidth

Syntax tunnel mpls [traffic-eng] bandwidth *bandwidth*

no tunnel mpls [traffic-eng] bandwidth

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the bandwidth required for the tunnel. The **no** version removes the bandwidth constraint from the tunnel.

When the bandwidth constraint is configured, MPLS automatically creates and attaches a QoS profile to the tunnel to enforce the bandwidth reservation. The QoS profile creates a scheduler node at the LSP level, with a scheduler profile that has an assured rate corresponding to the reserved bandwidth. The QoS profile also creates queues above the scheduler node so that traffic of a particular class will be subject to the scheduler node. If no queue are created at the LSP level for a particular class, the traffic of that class enters that class's queue at a lower level, bypassing the bandwidth reservation enforcement.

Options

- traffic-eng—Specifies optional keyword for compatibility with non–E Series implementations
- *bandwidth*—Amount of bandwidth required for the tunnel in kilobits per second, in the range 0–4294967295; default value is 0

Mode Interface Configuration, Tunnel Profile Configuration

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tunnel mpls description

Syntax tunnel mpls description *textString*

no tunnel mpls description

Release Information Command introduced before JunosE Release 7.1.0.

Description Associates a text description with the MPLS tunnel. The **no** version deletes the description.

Options
- *textString*—Description or name of the tunnel; string of up to 40 alphanumeric characters

Mode Interface Configuration, Tunnel Profile Configuration

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tunnel mpls diff-serv phb-id

Syntax tunnel mpls diff-serv phb-id { private *privateId* | standard *standardId* } [exp-bits *expBits*]

no tunnel mpls diff-serv phb-id { private *privateId* | standard *standardId* }

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the PHB supported by a signaled tunnel.

For E-LSPs, this command also maps the PHB to the specified EXP bits *bitValue*. You can repeat the command for up to eight PHB mappings.

For L-LSPs, the exp-bits keyword is not used. If you repeat the command, the most recent command overwrites the previous command.

The **no** version removes the mapping association.

Options

- *privateId*—Number, in the range 0–4095, designating the private PHB identifier
- *standardId*—Number, in the range 0–63, designating the standard identifier using the DSCP bits
- *expBits*—Number, in the range 0–7, designating the EXP bits

Mode Interface Configuration, Tunnel Profile Configuration

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tunnel mpls fast-reroute

Syntax [no] tunnel mpls [traffic-eng] fast-reroute

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures local protection for the ingress router of the primary LSP by causing RSVP-TE to signal at LSP setup that the primary LSP needs local protection. The **no** version removes the configuration.

Options
- traffic-eng—Specifies optional keyword for compatibility with non–E Series implementations

Mode Interface Configuration

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tunnel mpls no-route retries

Syntax tunnel mpls no-route retries *retryNum*

no tunnel mpls no-route retries

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies for a particular tunnel the number of attempts that will be made to set up an LSP for 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.

Options
- *retryNum*—Number of retry attempts in the range 0–65535

Mode Interface Configuration, Tunnel Profile Configuration

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tunnel mpls no-route retry-time

Syntax tunnel mpls no-route retry-time *retryTime*

no tunnel mpls no-route retry-time

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies for a particular tunnel the interval in seconds between attempts to set up an LSP for RSVP-TE after a failure due to no available route. The **no** version restores the default value, 5 seconds.

Options
- *retryTime*—Number of seconds in the range 1–60

Mode Interface Configuration, Tunnel Profile Configuration

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tunnel mpls path-option

Syntax

tunnel mpls [traffic-eng] path-option *number*
{ dynamic | explicit { name *pathName* | identifier *idNumber* } }
[hop-by-hop | ospf | isis] [lockdown]

no tunnel mpls [traffic-eng] path-option *number*

Release Information

Command introduced before JunosE Release 7.1.0.

Description

Specifies the path options for a tunnel. You can configure one or more path options—each identified by a unique number—for a given tunnel. The path option number expresses the preference for that option; lower numbers have a higher preference, with 1 having the highest preference. The **no** version deletes the path options.

Options

- traffic-eng—Specifies optional keyword for compatibility with non–E Series implementations
- *number*—Identifier for a set of path options
- dynamic—Specifies that the path is dynamically calculated
- explicit—Specifies that an explicit path is used
- *pathName*—Name of the explicit path; string of up to 20 characters
- *idNumber*—Number identifying the explicit path; in the range 1–65535
- hop-by-hop—Specifies that hop-by-hop routing is used for this path option
- ospf—Specifies that OSPF routing is used for this path option
- isis—Specifies that IS-IS routing is used for this path option
- lockdown—Specifies that optimization is not done for this path option

Mode

Interface Configuration, Tunnel Profile Configuration

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tunnel mpls priority

Syntax tunnel mpls [traffic-eng] priority *setupPriority* [*holdPriority*]

no tunnel mpls [traffic-eng] priority

Release Information Command introduced before JunosE Release 7.1.0.

Description Assigns a setup priority and optionally a hold priority to the tunnel. The priority can range from 0 (the highest) to 7 (the lowest). The hold priority, if set, must be equal to or better (lower numerically) than the setup priority. In the event of insufficient resources when a tunnel is being established, its setup priority is evaluated against the hold priorities of existing tunnels. Tunnels with lower hold priorities (higher values) are preempted and torn down to free their resources for the new tunnel. The **no** version restores the default value.

Options

- traffic-eng—Specifies optional keyword for compatibility with non–E Series implementations
- *setupPriority*—Priority for the tunnel as it is being established; default value is 4
- *holdPriority*—Priority for the tunnel after it has been established; default value is equal to the value of the setup priority

Mode Interface Configuration, Tunnel Profile Configuration

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tunnel mpls retries

Syntax tunnel mpls retries *retryNum*

no tunnel mpls retries

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies for a particular tunnel the number of attempts that will be made to set up an LSP for 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.

Options
- *retryNum*—Number of retry attempts in the range 0–65535

Mode Interface Configuration, Tunnel Profile Configuration

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tunnel mpls retry-time

Syntax tunnel mpls [no-route] retry-time *retryTime*

no tunnel mpls retry-time

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies for a particular tunnel the interval in seconds between attempts to set up an LSP for RSVP-TE after a failure other than one due to no available route. The **no** version restores the default value, 5 seconds.

Options
- *retryTime*—Number of seconds in the range 1–60

Mode Interface Configuration, Tunnel Profile Configuration

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tunnel mtu

Syntax tunnel mtu *mtuSize*

no tunnel mtu

Release Information Command introduced before JunosE Release 7.1.0
IPsec Tunnel Profile Configuration mode added in JunosE Release 7.3.0.
IP Tunnel Destination Profile Configuration mode added in JunosE Release 8.2.0.

Description Configures the maximum transmission unit size for the particular tunnel. The **no** version restores the default value, 1024 for static DVMRP and GRE tunnels, 10240 for dynamic DVMRP and GRE tunnels, 1440 for static IPsec tunnels, and 1400 for dynamic IPsec tunnels.

Options

- *mtuSize*—Packet size in bytes allowed for transmission through the tunnel in the range; in the range 1024–10240 for DVMRP and GRE tunnels, in the range 160–9000 for IPsec tunnels.

Mode Interface Configuration, IP Tunnel Destination Profile Configuration, IPsec Tunnel Profile Configuration

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tunnel password

Syntax tunnel password *tunnelPassword*

no tunnel password

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures a password for the L2TP tunnel. The **no** version removes the password.

Options
- *tunnelPassword*—Password used for challenge response to the tunnel peer; in the domain map, it is used only by the LAC

Mode L2TP Destination Profile Host Configuration

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tunnel peer-identity

Syntax tunnel peer-identity { address *ipAddress* | subnet *ipAddress subnetMask* | range *ipAddressLow ipAddressHigh* }

no tunnel peer-identity

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the peer identity of the IPsec tunnel. The **no** version removes the peer endpoint.

Options

- *ipAddress*—IP address of the peer identity
- *subnetMask*—Mask applied to the subnet IP address of the peer identity
- *ipAddressLow*—Lower bound of the range of IP addresses of the peer identity
- *ipAddressHigh*—Upper bound of the range of IP addresses of the peer identity

Mode Interface Configuration

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tunnel pfs group

Syntax tunnel pfs group { 1 | 2 | 5 }

no tunnel pfs group

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures perfect forward secrecy for the IPsec tunnel by assigning a Diffie-Hellman prime modulus group. The **no** version removes PFS from this tunnel.

Options
- 1—Assigns a 768-bit Diffie-Hellman prime modulus group
- 2—Assigns a 1024-bit Diffie-Hellman prime modulus group
- 5—Assigns a 1536-bit Diffie-Hellman prime modulus group

Mode Interface Configuration

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tunnel sequence-datagrams

Syntax [no] tunnel sequence-datagrams

Release Information Command introduced before JunosE Release 7.1.0.
IP Tunnel Destination Profile Configuration mode added in JunosE Release 8.2.0.

Description Enables the use of GRE sequence numbers. The **no** version disables the use of GRE sequence numbers.

Mode Global Configuration, IP Tunnel Destination Profile Configuration

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tunnel-server

Syntax [no] tunnel-server *interfaceSpecifier*

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the location of a dedicated or shared tunnel-server port on a module and accesses Tunnel Server Configuration mode, which enables you to provision the maximum number of tunnel-service interfaces to be used on the tunnel-server port. The **default** version restores the default configuration. On dedicated tunnel-server ports, the default configuration is 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.

Options
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see "Interface Types and Specifiers" on page 5; port number specified must have the tunnel-server port assigned to it

Mode Global Configuration

Related Documentation
- Configuring QoS for Tunnel-Server Ports for L2TP LNS Sessions

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tunnel session-key-inbound

Syntax tunnel session-key-inbound *inSaAlgorithms* { *encryptKey authKey* | *authKey* }

no tunnel session-key-inbound

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the encryption and authentication algorithm set and session keys for manual inbound SAs. The **no** version removes the keys.

Options

- *inSAalgorithms*—Algorithms to use for manual inbound SAs; use the online Help to see a list of available algorithms
- *encryptKey*—Encryption key; string of hexadecimal characters; length varies according to algorithm
  - DES—16 hexadecimal characters for the 8-byte key
  - 3DES—48 hexadecimal characters for the 24-byte key
  - MD5—32 hexadecimal characters for the 16-byte key
  - SHA—40 hexadecimal characters for the 20-byte key
- *authKey*—Authentication key; string of up to 48 characters

Mode Interface Configuration

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tunnel session-key-outbound

Syntax tunnel session-key-outbound *outSAalgorithms spi*
{ *encryptKey authKey* | *encryptKey* | *authKey* }

no tunnel session-key-outbound

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the encryption and authentication algorithm set, SPI, and session keys for manual outbound SAs. The **no** version removes the keys.

Options

- *outSAalgorithms*—Algorithms to use for manual outbound SAs; use the online Help to see a list of available algorithms
- *spi*—Number that uniquely identifies an SA, in the range 256–4294967295 (0xFFFFFFFF)
- *encryptKey*—Encryption key; string of hexadecimal characters; length varies according to algorithm
  - DES—16 hexadecimal characters for the 8-byte key
  - 3DES—48 hexadecimal characters for the 24-byte key
  - MD5—32 hexadecimal characters for the 16-byte key
  - SHA—40 hexadecimal characters for the 20-byte key
- *authKey*—Authentication key; string of up to 48 characters

Mode Interface Configuration

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tunnel signaling

Syntax tunnel signaling { isakmp | manual }

no tunnel signaling

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the signaling protocol used to negotiate security parameters and keys. The **no** version restores the default, isakmp.

Options
- isakmp—Uses ISAKMP/IKE to negotiate parameters
- manual—Specifies that security parameters are configured manually

Mode Interface Configuration

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tunnel source

Syntax

For DVMRP and GRE tunnels in Interface Configuration mode:

tunnel source { *ipAddress* | *interfaceType interfaceSpecifier* }

no tunnel source

For IPsec tunnels in Interface Configuration mode:

tunnel source { *ipAddress* | identity *fqdn* }

no tunnel source

For DVMRP and GRE tunnels in IP PIM Data MDT Configuration mode and in IP Tunnel Destination Profile Configuration mode:

[no] tunnel source *ipAddress*

Release Information

Command introduced before JunosE Release 7.1.0.
IP PIM Data MDT Profile Configuration mode, and IP Tunnel Destination Profile Configuration mode added in JunosE Release 8.2.0.

Description

In Interface Configuration mode, configures the source for a DVMRP, GRE, or IPsec tunnel. The **no** version deletes the tunnel source.

In IP Tunnel Destination Profile Configuration mode, configures the source in the destination profile for dynamic IP tunnels. The **no** version deletes the tunnel source.

In IP PIM Data MDT Configuration mode, configures the source in the IP PIM Data MT profile for multicast VPNs. The **no** version deletes the tunnel source.

Options

- *ipAddress*—IP address of an existing interface that will serve as the tunnel's source
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *fqdn*—Fully qualified domain name of the interface to serve as the tunnel's source; a maximum of 80 characters

Mode

Interface Configuration, IP PIM Data MDT Configuration, IP Tunnel Destination Profile Configuration

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tunnel-subscriber authentication

Syntax tunnel-subscriber authentication { enable | disable }

no tunnel-subscriber authentication

Release Information Command introduced in JunosE Release 9.1.0.

Description Configures whether tunnel subscribers within the domain map are authenticated with the authentication server or are granted access without individual authentication. The **no** version restores the default condition, where users are not authenticated by an authentication server.

Options
- enable—Enables tunnel subscriber authentication by the authentication server
- disable—Disables tunnel subscriber authentication by the authentication server; all users in the domain are granted access without individual authentication; this is the default condition

Mode Domain Map Configuration

Related Documentation
- Tunnel Subscriber Authentication Configuration Overview

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tunnel transform-set

Syntax [no] tunnel transform-set *transformSetName*

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies a transform set that ISAKMP uses during SA negotiations on this tunnel. Transform sets used for manually configured tunnels can have only one transform. The **no** version removes the transform set from a tunnel.

Options
- *transformSetName*—Name of the transform set

Mode Interface Configuration

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tx-connect-speed-method

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

no tx-connect-speed-method

Release Information Command introduced in JunosE Release 8.0.0.

Description Configures for an AAA domain map (when used from Domain Map Tunnel Configuration mode) or for an AAA tunnel group (when used from Tunnel Group Tunnel Configuration mode) the method used to calculate the transmit connect speed of the subscriber's access interface for establishing a tunneled L2TP session. This speed is reported in L2TP Transmit (TX) Speed AVP 24. The **no** version removes configuration of the transmit connect speed calculation method from the AAA domain map or AAA tunnel group.

Options

- 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 Domain Map Tunnel Configuration, Tunnel Group Tunnel Configuration

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type

Syntax To configure the RTR operation:

[no] type *rtrType* protocol ipIcmpEcho *destination*
[source-ipaddr *srcAddr* | source *interfaceType interfaceSpecifier*]

To specify the L2TP tunnel type:

type *tunnelType*

no type

Release Information Command introduced before JunosE Release 7.1.0.

Description From RTR Configuration mode, configures an RTR operation. The **no** version removes the configured type from the operation and resets all configuration for an RTR index.

NOTE: **You must configure the operation's type before you can configure any other characteristics of the operation.**

From Domain Map Configuration and Tunnel Group Tunnel Configuration modes, specifies the L2TP tunnel type (RADIUS attribute 64, Tunnel-Type).

Options

- *rtrType*—One of the following types of operation:
  - echo—Performs end-to-end operation only
  - pathEcho—Discovers a path to the destination and echoes each device on the path
- *destination*—IP address or an IP hostname or domain name
- *srcAddr*—Source IP address
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5
- *tunnelType*—L2TP tunnel type

Mode Domain Map Configuration, RTR Configuration, Tunnel Group Tunnel Configuration

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CHAPTER 9

U, V, W, and Y Commands

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ubr

Syntax ubr [*pcr*]

no ubr

Release Information Command introduced in JunosE Release 7.1.0.
ATM VC Class Configuration mode added in JunosE Release 7.3.0.

Description In ATM VC Configuration mode, configures the unspecified bit rate (UBR) service category on an ATM PVC. Optionally, you can specify a peak cell rate (PCR). The **ubr** 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, UBR without a PCR.

In ATM VC Class Configuration mode, configures the UBR 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.

Options
- *pcr*—Peak cell rate, in Kbps, in the range 0–149760 (for OC3 ATM modules) or 0–599040 (for OC12 ATM modules)

Mode ATM VC Configuration, ATM VC Class Configuration

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udp-port

Syntax udp-port *port*

no udp-port

Release Information Command introduced before JunosE Release 7.1.0.

Description From RADIUS Configuration mode, specifies the UDP port on the router where the RADIUS authentication, accounting, or dynamic-request servers reside. The router uses this port to communicate with the RADIUS servers. The **no** version restores the default value.

From RADIUS Relay Configuration mode, specifies the UDP port on the router where the RADIUS relay authentication or accounting server resides. The router uses this port to communicate with the RADIUS relay servers. The **no** version restores the default value.

Options

- *port*—Port number in the range 1–65535
  - 1812—Default for RADIUS and RADIUS relay authentication servers
  - 1813—Default for RADIUS and RADIUS relay accounting servers
  - 1700—Default for RADIUS dynamic-request servers

Mode RADIUS Configuration, RADIUS Relay Configuration

Related Documentation

- Configuring RADIUS-Based Packet Mirroring

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undebug ip bgp

Syntax undebug ip bgp [in | out] [*peerAddress* [*peerAddressMask*]] [*bgpLog*] [router *routerName*] [filtering-router *filteringRouterName*] [*accessClassName*] [route-map *mapName*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Turns off the display of information previously enabled with the **debug ip bgp** command. There is no **no** version.

Options

- 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

Mode Privileged Exec

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undebug ip mbgp

Syntax undebug ip mbgp [in | out] [*peerAddress* [*peerAddressMask*]] [*bgpLog*] [router *routerName*] [filtering-router *filteringRouterName*] [*accessClassName*] [route-map *mapName*]

Release Information Command introduced before JunosE Release 7.1.0.

Description Turns off the display of information previously enabled with the **debug ip mbgp** command. There is no **no** version.

Options

- 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

Mode Privileged Exec

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undebug ip ospf

Syntax undebug ip ospf *ospfLog*

Release Information Command introduced before JunosE Release 7.1.0.

Description Turns off the display of information for the selected variable. See **debug ip ospf** command for a complete list of the ospfLog variables. There is no **no** version.

Options

- *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

Mode Privileged Exec

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undebug ip pim

Syntax undebug ip pim *pimLog*

Release Information Command introduced before JunosE Release 7.1.0.

Description Turns off the display of information previously enabled with the debug ip bgp command. There is no **no** version.

Options
- *pimLog*—PIM log of interest

Mode Privileged Exec

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undebug ip rip

Syntax undebug ip rip *ripLog*

Release Information Command introduced before JunosE Release 7.1.0.

Description Turns off the display of information previously enabled with the **debug ip rip** command. There is no **no** version.

Options

- *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

Mode Privileged Exec

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undebug ipv6 ospf

Syntax undebug ipv6 ospf *ospfLog*

Release Information Command introduced before JunosE Release 7.1.0.

Description Turns off the display of information for the selected variable. See **debug ipv6 ospf** command for a complete list of the ospfLog variables. There is no **no** version.

Options

- *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

Mode Privileged Exec

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undebug ipv6 pim

Syntax undebug ipv6 pim *pimLog*

Release Information Command introduced before JunosE Release 7.1.0.

Description Turns off the display of information previously enabled with the **debug ipv6 pim** command. There is no **no** version.

Options
- *pimLog*—PIM log of interest

Mode Privileged Exec

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undebug isis

Syntax undebug isis *isisLog*

Release Information Command introduced before JunosE Release 7.1.0.

Description Turns off the display of information for the selected variable. See the debug isis command for a complete list of the IS-IS log variables. There is no **no** version.

Options

- *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

Mode Privileged Exec

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unicast

Syntax unicast { permit | deny }

no unicast

Release Information Command introduced before JunosE Release 7.1.0.

Description Modifies the subscriber policy for the unicast (user-to-user) protocol to define whether the subscriber (client) interfaces that belong to a bridge group or to a VPLS instance forward (permit) or filter (deny) unicast packets. The **no** version restores the default value, permit unicast 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 the MPLS tunnels from the router to the remote VPLS edge (VE) devices.

Options

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

Mode Subscriber Policy Configuration

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unknown-destination

Syntax unknown-destination { permit | deny }

no unknown-destination

Release Information Command introduced before JunosE Release 7.1.0.

Description Modifies the subscriber policy for packets with unknown unicast destination addresses (DAs) to define whether the subscriber (client) interfaces that belong to a bridge group or to a VPLS instance forward (permit) or filter (deny) packets with unknown unicast DAs. The **no** version restores the default value, deny packets with unknown unicast DAs.

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.

Options

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

Mode Subscriber Policy Configuration

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unknown-protocol

Syntax unknown-protocol { permit | deny }

no unknown-protocol

Release Information Command introduced before JunosE Release 7.1.0.

Description Modifies the subscriber policy for packets containing an unknown protocol to define whether the subscriber (client) interfaces that belong to a bridge group or to a VPLS instance forward (permit) or filter (deny) these packets. The **no** version restores the default value, permit unknown protocol 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.

Options

- permit—Specifies that the subscriber interface associated with the bridge group or VPLS instance forwards packets containing an unknown protocol
- deny—Specifies that the subscriber interface associated with the bridge group or VPLS instance filters packets containing an unknown protocol

Mode Subscriber Policy Configuration

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update-source

Syntax

For OSPF:

[no] update-source loopback *interfaceSpecifier*

For PIM:

update-source *interfaceType interfaceSpecifier*

no update-source [*interfaceType interfaceSpecifier*]

For RIP:

[no] update-source *interfaceType interfaceSpecifier*

Release Information

Command introduced before JunosE Release 7.1.0.

Description

Specifies the loopback interface whose local address is used as the source address for the OSPF, PIM, or RIP connection to a remote neighbor. The **no** version deletes the source address from the connection.

NOTE: For PIM, 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.

Options

- *interfaceSpecifier*—Integer, in the range 1–4294967293, identifying the loopback interface
- *interfaceType*—Interface type; see Interface Types and Specifiers on page 5
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see Interface Types and Specifiers on page 5

Mode

Remote Neighbor Configuration

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use canned-group

Syntax use canned-group *groupName* [revert]

no use canned-group

Release Information Command introduced in JunosE Release 8.1.0.

Description Creates a DoS protection group that uses a preconfigured (canned) set of parameters. The **revert** keyword returns to the original values, which are the default for the group. The **no** version associates the group with the default preconfigured group settings.

Options
- *groupName*—Name of the DoS protection template

Mode DoS Protection Group Configuration

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use-release-grace-period

Syntax [no] use-release-grace-period

Release Information Command introduced in JunosE Release 8.0.0.

Description Applies the grace period, which is specified by the **grace-period** command, to the DHCP local address pool addresses that are explicitly released by clients. When a client releases an address, the address enters the grace period and can be reassigned only to the original client. The **no** version restores the default, which disables the use of the grace period for explicitly released addresses.

Mode DHCP Local Pool Configuration

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username

Syntax username *userName* [nopassword | password [*encryptionType*] *passwordValue* | secret [*encryptionType*] *secretValue*]

no username *userName*

Release Information Command introduced before JunosE Release 7.1.0.

Description Configures a user entry and optional password or secret in the default local user database. This command creates the database if it does not already exist. The **no** version deletes the username entry from the default local user database. The **nopassword** keyword removes the password or secret.

Options

- *userName*—Name of user
- nopassword—Specifies that a password is not required for the specified username; deletes the password or secret from an existing username
- *encryptionType*—One of the following:
  - 0—Unencrypted password or secret (the default)
  - 5—MD5-encrypted secret
  - 8—Two-way encrypted password
- *passwordValue*—Character string that specifies the password. The string can contain any alphanumeric character, including spaces, up to 64 characters. Passwords are case sensitive.
- *secretValue*—Character string that specifies the secret. The string can contain any alphanumeric characters, including spaces, up to 64 characters. Secrets are case sensitive.

Mode Global Configuration

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user-name

Syntax user-name *serviceUsername*

no user-name

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the username for an IP service profile. The **no** version removes the username.

Options
- *serviceUsername*—Up to 32-character username

Mode IP Service Profile Configuration

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user-packet-class

Syntax [no] [suspend] user-packet-class *userPacketClassValue*

Release Information Command introduced before JunosE Release 7.1.0.

Description Adds a user packet class rule to a policy list that sets the user packet class attribute of packets that match the current classifier control list. The **no** version removes a user packet class from a 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 **user-packet-class** command, which may be removed completely in a future release.

Options
- *userPacketClassValue*—User packet class value assigned to packets, in the range 0–15

Mode Classifier Group Configuration

Related Documentation
- Policy Rule Precedence

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user-prefix

Syntax user-prefix *prefixString*

no user-prefix

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the user prefix for an IP service profile. The **no** version removes the user prefix.

Options
- *prefixString*—Appends the interface physical location to the username

Mode IP Service Profile Configuration

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vbr-nrt

Syntax vbr-nrt *pcr scr mbs*

no vbr-nrt

Release Information Command introduced in JunosE Release 7.1.0.
ATM VC Class Configuration mode added in JunosE Release 7.3.0.

Description In ATM VC Configuration mode, configures the variable bit rate, nonreal time (VBR-NRT) service category on an ATM PVC. You must specify the peak cell rate (PCR), sustained cell rate (SCR), and maximum burst size (MBS). The **vbr-nrt** 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 VBR-NRT service category as part of a VC class definition that you assign to an ATM PVC. The **no** version restores the default service category, UBR without a PCR, in the VC class.

Options

- *pcr*—Peak cell rate, in Kbps, in the range 0–149760 (for OC3 ATM modules) or 0–599040 (for OC12 ATM modules)
- *scr*—Sustained cell rate, in Kbps, in the range 0–149760 (for OC3 ATM modules) or 0–599040 (for OC12 ATM modules)
- *mbs*—Maximum burst size, in cells, in the range 0–16777215

Mode ATM VC Configuration, ATM VC Class Configuration

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vbr-rt

Syntax vbr-rt *pcr scr mbs*

no vbr-rt

Release Information Command introduced in JunosE Release 7.1.0.
ATM VC Class Configuration mode added in JunosE Release 7.3.0.

Description In ATM VC Configuration mode, configures the variable bit rate, real time (VBR-RT) service category on an ATM PVC. You must specify the peak cell rate (PCR), sustained cell rate (SCR), and maximum burst size (MBS). The **vbr-rt** 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 VBR-RT service category as part of a VC class definition that you assign to an ATM PVC. The **no** version restores the default service category, UBR without a PCR, in the VC class.

Options

- *pcr*—Peak cell rate, in Kbps, in the range 0–149760 (for OC3 ATM modules) or 0–599040 (for OC12 ATM modules)
- *scr*—Sustained cell rate, in Kbps, in the range 0–149760 (for OC3 ATM modules) or 0–599040 (for OC12 ATM modules)
- *mbs*—Maximum burst size, in cells, in the range 0–16777215

Mode ATM VC Configuration, ATM VC Class Configuration

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vc-class atm

Syntax [no] vc-class atm *vcClassName*

Release Information Command introduced in JunosE Release 7.3.0.

Description Creates and names a VC class for an ATM data PVC. This command accesses ATM VC Class Configuration mode, from which you can configure a set of attributes for an ATM data PVC. The VC class can include attributes for the service category, encapsulation method, F5 OAM options, and Inverse ARP. You then apply the attributes as a group by assigning the VC class to an individual PVC, to all PVCs created on a specified ATM major interface, to all PVCs created on a specified ATM 1483 subinterface, or to a base profile from which bulk-configured VC ranges are dynamically created. The **no** version removes the named VC class from the router.

You cannot remove a VC class that is currently assigned to at least one ATM PVC, ATM 1483 subinterface, or ATM major interface without first issuing the **no** class-vc command or the **no** show ip dhcp-local binding command to remove the VC class association with the PVC, interface, or subinterface.

NOTE: For information about the total number of ATM VC classes supported on the router, see *JunosE Release Notes, Appendix A, System Maximums*.

Options

- *vcClassName*—Name of the VC class; a string of up to 32 alphanumeric characters

Mode Global Configuration

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version

Syntax version { 1 | 2 }

no version

Release Information Command introduced before JunosE Release 7.1.0.

Description Specifies the global RIP version. The **no** version reverts to the default value, RIP version 1. Use the **ip rip receive** and **ip rip send version** commands to specify the RIP version for a specific interface.

Options
- 1—RIP version 1
- 2—RIP version 2

Mode Address Family Configuration, Router Configuration

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virtual-router

Syntax virtual-router *vrName* | :*vrfName* | *vrName*:*vrfName*

no virtual-router *vrName* [wait-for-completion [*waitSeconds*]]

Release Information Command introduced before JunosE Release 7.1.0.

Description Creates a virtual router or accesses the context of a previously created virtual router or a VRF. The **no** version deletes the virtual router, and the router defaults to the default virtual router. Issuing a **no** version that specifies an existing VRF only displays the error message: " Cannot delete a VRF with this command." You must use the **no ip vrf** command to remove a VRF.

NOTE: In Domain Map Configuration mode, the **virtual-router** command has been replaced by the router-name command and may be removed completely from Domain Map Configuration mode in a future release.

Options

- *vrName*—Name of the virtual router; a string of 1–32 alphanumeric characters
- :*vrfName*—Name of a VRF in the current VR context; a string of 1–32 alphanumeric characters
- *vrName*:*vrfName*—Name of a VRF in the context of a VR other than the current VR
- 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 been completed

Mode Global Configuration, Privileged Exec

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vlan advisory-rx-speed

Syntax vlan advisory-rx-speed *speed*

no vlan advisory-rx-speed

Release Information Command introduced in JunosE Release 7.2.0.

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.

NOTE: The L2C RAM actual upstream rate takes precedence over the configured VLAN advisory RX speed which takes precedence over the RX Connect-Speed AVP that is generated when the RX and transmit-connect speeds are equal.

Options

- *speed*—Speed in the range 0–2147483647 Kbps; 0 indicates no advisory speed setting

Mode Profile Configuration, Subinterface Configuration

Related Documentation

- l2tp rx-connect-speed-upstream-rate
- l2tp rx-connect-speed-when-equal

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vlan advisory-tx-speed

Syntax vlan advisory-tx-speed *speed*

no vlan advisory-rx-speed

Release Information Command introduced in JunosE Release 7.2.0.

Description Sets an advisory connect (Tx) speed that the LAC sends in the Tx connect speed to the LNS. The **no** version restores the default behavior, in which the Tx speed is not sent to the LNS.

Options
- *speed*—Speed in the range 0–2147483647 Kbps; 0 indicates no advisory speed setting

Mode Profile Configuration, Subinterface Configuration

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vlan auto-configure

Syntax vlan auto-configure *upperInterfaceType* [lockout-time { *minTime maxTime* | none }]

no vlan auto-configure *upperInterfaceType*

Release Information Command introduced in JunosE Release 7.1.0.
lockout-time keyword added in JunosE Release 7.3.0.

Description Specifies the types of dynamic upper interface encapsulations that are accepted or detected by a dynamic VLAN subinterface. 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 VLAN subinterface. The **no** version terminates detection of the specified encapsulation type.

Options

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

Mode Profile Configuration

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vlan auto-configure agent-circuit-identifier

Syntax [no] vlan auto-configure agent-circuit-identifier

Release Information Command introduced in JunosE Release 7.3.0.

Description Configures the router to dynamically create VLAN subinterfaces based on the agent-circuit-id option (suboption 1) of the option 82 field in DHCP messages, or based on the DSL Forum VSA 26-1 (Agent-Circuit-Id) in PPPoE PADR and PADI packets. The **no** version disables the creation of VLAN subinterfaces based on agent-circuit-identifier information.

Mode Profile Configuration

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vlan bulk-config

Syntax To configure or remove a bulk configuration or a specific VLAN range:

vlan bulk-config *bulkConfigName* [vlan-range *vlanIdStart vlanIdEnd*]*

no vlan bulk-config *bulkConfigName* [vlan-range *vlanIdStart vlanIdEnd*]

To configure a VLAN range containing double-tagged S-VLAN IDs:

vlan bulk-config *bulkConfigName* [svlan-range s-*vlanIdStart s-vlanIdEnd vlanIdStart vlanIdEnd*]*

To configure a VLAN range containing S-VLAN IDs with any VLAN ID:

vlan bulk-config *bulkConfigName* [svlan-range *s-vlanIdStart s-vlanIdEnd* any]*

To configure a VLAN range that is based on agent-circuit-identifier information:

vlan bulk-config *bulkConfigName* [svlan-range *s-vlanIdStart s-vlanIdEnd* agent-circuit-identifier]*

To remove a VLAN range containing S-VLAN IDs or agent-circuit-identifier information:

no vlan bulk-config *bulkConfigName* [svlan-range s-*vlanIdStart s-vlanIdEnd* { *vlanIdStart vlanIdEnd* | any | agent-circuit-identifier }]

Release Information Command introduced in JunosE Release 7.3.0.

Description Configures a range of single-tagged VLAN IDs and double-tagged S-VLAN IDs for use by a dynamic VLAN subinterface, and assigns a name to the VLAN range. Each VLAN range consists of one or more nonoverlapping VLAN subranges. A VLAN subrange is a group of VLAN IDs that resides within the specified VLAN ID ranges. You can configure multiple VLAN ranges on a major VLAN interface. The **no** version removes the specified VLAN range (including all subranges in the range) from the VLAN major interface or the specified subrange from the VLAN range. The **no** version also removes any overriding profile assignments for VLAN IDs within the deleted VLAN range or VLAN subrange.

Options

- *bulkConfigName*—Name of the VLAN range; string of up to 80 characters
- *vlanIdStart*—Starting VLAN ID of the VLAN subrange you are configuring
- *vlanIdEnd*—Ending VLAN ID of the VLAN subrange you are configuring
- *s-vlanIdStart*—Starting S-VLAN ID of the VLAN subrange you are configuring
- *s-vlanIdEnd*—Ending S-VLAN ID of the VLAN subrange you are configuring
- any—Specifies the VLAN ID as a wildcard
- agent-circuit-identifier—Specifies a VLAN range that is based on agent-circuit-identifier information
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

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Mode Interface Configuration

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vlan bulk-config modify

Syntax To modify VLAN ranges containing single-tagged VLAN IDs:

vlan bulk-config *bulkConfigName* modify vlan-range *vlanIdStart vlanIdEnd*

To modify VLAN ranges containing double-tagged S-VLAN IDs or based on agent-circuit-identifier:

vlan bulk-config *bulkConfigName* modify svlan-range *s-vlanIdStart s-vlanIdEnd* { *vlanIdStart vlanIdEnd* | any | agent-circuit-identifier }

Release Information Command introduced in JunosE Release 7.3.0.

Description Modifies the VLAN subrange values for the specified bulk configuration VLAN 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.

Options

- *bulkConfigName*—Name of the VLAN range; string of up to 80 characters
- *vlanIdStart*—Starting VLAN ID of the VLAN subrange you are configuring
- *vlanIdEnd*—Ending VLAN ID of the VLAN subrange you are configuring
- *s-vlanIdStart*—Starting S-VLAN ID of the S-VLAN subrange you are configuring
- *s-vlanIdEnd*—Ending S-VLAN ID of the S-VLAN subrange you are configuring
- any—Specifies the VLAN ID as a wildcard
- agent-circuit-identifier—Specifies a VLAN range that is based on agent-circuit-identifier information

Mode Interface Configuration

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vlan bulk-config shutdown

Syntax To shut down or reenable the specified bulk configuration or a specific VLAN range:

[no] vlan bulk-config *bulkConfigName* shutdown

[no] vlan bulk-config *bulkConfigName* shutdown vlan-range *vlanIdStart vlanIdEnd*

To shut down or reenable VLAN ranges containing double-tagged S-VLAN IDs or based on agent-circuit-identifier information:

[no] vlan bulk-config *bulkConfigName* shutdown svlan-range *s-vlanIdStart s-vlanIdEnd* { *vlanIdStart vlanIdEnd* | any | agent-circuit-identifier }

Release Information Command introduced in JunosE Release 7.3.0.

Description Administratively disables (shuts down) the specified bulk configuration, or a specified VLAN range or subrange. When you shut down a specified bulk configuration, all VLAN ranges, including those based on double-tagged S-VLAN IDs or agent-circuit-identifier information, are disabled. The **no** version reenables the specified bulk configuration, the specified VLAN range, or the specified subranges; this is the default condition.

Options

- *bulkConfigName*—Name of the VLAN range; string of up to 80 characters
- *vlanIdStart*—Starting VLAN ID of the VLAN subrange you are configuring
- *vlanIdEnd*—Ending VLAN ID of the VLAN subrange you are configuring
- *s-vlanIdStart*—Starting S-VLAN ID of the S-VLAN subrange you are configuring
- *s-vlanIdEnd*—Ending S-VLAN ID of the S-VLAN subrange you are configuring
- any—Specifies the VLAN ID as a wildcard
- agent-circuit-identifier—Specifies a VLAN range that is based on agent-circuit-identifier information

Mode Interface Configuration

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vlan classifier-list

Syntax

vlan classifier-list *classifierName*
{ traffic-class *className* } | { color { green | yellow | red } } |
{ user-packet-class *userPacketClassValue* } | { user-priority *userPriorityValue* }

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

Release Information

Command introduced before JunosE Release 7.1.0.

Description

Creates or modifies a VLAN classifier control list. The **no** version deletes the classifier control list.

Options

- *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
- *userPriorityValue*—Value of the user priority bits in the range 0–7
- *classifierNumber*—Index of the classifier control list entry to be deleted; an integer in the range 1–10000

Mode

Global Configuration

Related Documentation

- Creating or Modifying Classifier Control Lists for VLAN Policy Lists

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vlan description

Syntax vlan description *aliasName*

no vlan description

Release Information Command introduced before JunosE Release 7.1.0.
Profile Configuration mode added in JunosE Release 7.2.0.

Description Assigns an alias or a description to a VLAN subinterface. The **no** version removes the description.

Options
- *aliasName*—Alias or description; string of up to 64 characters

Mode Interface Configuration, Profile Configuration

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vlan dos-protection-group

Syntax vlan dos-protection-group *groupName*

no vlan dos-protection-group

Release Information Command introduced in JunosE Release 8.1.0.

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

Options
- *groupName*—Name of the DoS protection group

Mode Interface Configuration

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vlan id

Syntax vlan id *idValue* [icr-control-interface] [untagged] [mac-address *macAddress*]

Release Information Command introduced before JunosE Release 7.1.0.
icr-control-interface keyword added in JunosE Release 10.3.0.

Description Specifies a VLAN ID to a VLAN subinterface. Assigns a VLAN ID to a VLAN subinterface on which an ICR partition is to be configured. Issue the **vlan id** command before you configure any upper-layer interfaces, such as IP. There is no **no** version.

Options

- *idValue*—Number unique within the Ethernet interface, in the range 0–4095.
- icr-control-interface—Sets the VLAN subinterface as an ICR control interface on which you want to configure the ICR partition. We recommend that you use this option only if you want the VLAN subinterface to be used to create ICR partitions.
- untagged—Specifies that frames be sent untagged; valid only for VLAN ID 0. Tagged frames can be received, but untagged frames are sent.
- *macAddress*—MAC address of the interface; when you do not specify a unique MAC address, the VLAN uses the MAC address of the Ethernet interface.

Mode Interface Configuration

Related Documentation

- Configuring Ethernet/VLAN Layer 2 Services
- Configuring Local ATM Cross-Connects with AAL5 Encapsulation
- Configuring Local Cross-Connects Between Ethernet/VLAN Interfaces

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vlan policy

Syntax

vlan policy { input | output } *policyName*
[statistics { enabled [baseline { enabled | disabled }] [preserve | merge] | disabled [merge] } | merge]

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

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.

Description

Assigns a VLAN policy list to an interface. If you enter the **vlan policy** command and the policy list does not exist, the router creates a policy list with no rules, the default. When no rules are found in a policy list, the router performs a routing table lookup and forwards packets on the interface based on the routing table information. 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.

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 the policy reference from the profile.

Options

- 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, Profile Configuration

Related Documentation

- Setting a Statistics Baseline for Policies

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vlan policy-list

Syntax [no] vlan policy-list *policyName*

Release Information Command introduced before JunosE Release 7.1.0.

Description Creates the specified policy list and accesses Policy List Configuration mode. The **no** version deletes the policy list.

Options
- *policyName*—Name of a policy list; string of up to 40 alphanumeric characters

Mode Global Configuration

Related Documentation
- Creating Policy Lists for VLANs

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vlan profile

Syntax [no] vlan profile *upperInterfaceType profileName*

Release Information Command introduced in JunosE Release 7.1.0.

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

Options

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

Mode Profile Configuration

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vlan service-profile

Syntax [no] vlan service-profile *profileName*

Release Information Command introduced in JunosE Release 7.1.0.

Description Assigns an IP service profile to a VLAN subinterface. The service profile must be defined in the default virtual router. The **no** version removes the IP service profile from the VLAN subinterface.

Options
- *profileName*—Name of the IP service profile

Mode Profile Configuration

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volume

Syntax volume *megabytes*

no volume

Release Information Command introduced in JunosE Release 7.2.0.

Description Configures the threshold for the volume of traffic allowed for the service session. The service is terminated when the threshold is exceeded. The **no** version removes the volume attribute from the service session profile.

Options
- *megabytes*—Number of megabytes in the range 0–16777251

Mode Service Session Profile Configuration

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wait-for-gsmp-syn

Syntax [no] wait-for-gsmp-syn

Release Information Command introduced in JunosE Release 11.0.0.

Description Enables the learning option in ANCP.

The **no** version disables the learning option.

Mode L2C Configuration

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warning

Syntax warning *maximumUtilization minimumUtilization*

no warning

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the minimum and maximum threshold values for DHCP local address pool utilization. A local address pool can be linked to a second local address pool so that when the first pool utilization reaches 100%, the DHCP local server uses the second pool. The utilization of addresses is calculated for all the pools that are in the linked pools and they are collectively considered as an aggregated pool group for generation of SNMP traps. By default, the minimum and maximum threshold for SNMP traps to be triggered are 75 percent and 85 percent, respectively.

If you issue the snmp-server command, SNMP traps are generated when utilization occurs above or below the specified threshold values. The **no** version restores the default threshold values for local address pool utilization.

Options

- *maximumUtilization*—Maximum utilization value for the DHCP local address pool
- *minimumUtilization*—Minimum utilization value for the DHCP local address pool

Mode DHCP Local Pool Configuration

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weight

Syntax weight *weightValue* [*operator operandValue*]*

no weight

Release Information Command introduced before JunosE Release 7.1.0.

Description Sets the weighted round-robin weight of the scheduler node or queue. A queue weight of 0 (zero) gives the queue infinite weight. The **no** version restores the default value, 8.

Options

- *weightValue*—Specifies a QoS parameter definition name or a constant weight in the range of 0–4080 when used separately. The default value is 8. It specifies a QoS parameter definition name or any integer value to be used in the mathematical expression when used with the *operator* and *operandValue* variables.
- *operator*—Mathematical function
- *operandValue*—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

Related Documentation

- Configuring the HRR Weight for a Scheduler Node or Queue

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write core

Syntax write core [standby-srp | slot *slotNumber*] [force] [reason *reasonText*]

Release Information Command introduced in JunosE Release 7.3.0.

Description Reboots the active SRP module, the standby SRP module, or the module in a specified slot, and writes the core dump to a file. There is no **no** version.

Options

- standby-srp—Specifies the standby SRP module
- *slotNumber*—Number of a selected slot in the router; for ERX7xx models, a number in the range 0–6; for ERX14xx models, a number in the range 0–13; for the ERX310 router, a number in the range 0–2; for the E120 router, a number in the range 0–5; for the E320 router, a number in the range 0–16
- force—Prompts for confirmation to reboot when the router is in certain states, such as during the synchronization of SRP modules, that can lead to a loss of configuration data or an NVS corruption

NOTE: The **force** keyword is available when you specify a slot only if that slot is an SRP module slot.

- *reasonText*—Alphanumeric text string (1–255 characters long) that explains the request for a core dump and logs it in the reboot

Mode Privileged Exec

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write memory

Syntax write memory

Release Information Command introduced before JunosE Release 7.1.0.

Description Saves all outstanding (unsaved) configuration changes to nonvolatile storage; an exact alias of the **copy running-configuration startup-configuration** command. Available if the router is in either Automatic Commit mode or Manual Commit mode. If issued while in Automatic Commit mode, the CLI notifies you that the command is not necessary, but allows you to proceed. If automatic synchronization between the primary and standby SRP modules is enabled (the default system behavior) and the system is in Manual Commit mode (the nondefault system behavior), issuing this command triggers file system synchronization immediately after the system writes, or commits, all outstanding configuration changes to NVS. There is no **no** version.

Mode Privileged Exec

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yellow-mark

Syntax [no] yellow-mark *colorMarkValue*

Release Information Command introduced in JunosE Release 7.2.0.

Description Applies ToS mark value to yellow packets, which can be from policy actions, earlier policies, or rate-limit hierarchies. The **no** version deletes the ToS mark value.

Options
- *colorMarkValue*—Value of the ToS mark to be applied, in the range 0–255

Mode Color Mark Profile Configuration

Related Documentation
- Hierarchical Rate Limits Overview
- Policy Rule Precedence

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