

I Commands

id

Description	Specifies the ANCP neighbor ID in the L2C Neighbor (config-l2c-neighbor) Configuration mode. The no version removes the neighbor ID.
Syntax	[no] id <i>neighborId</i> <ul style="list-style-type: none">■ <i>neighborId</i>—ANCP neighbor ID (MAC address) in the form XXXX.XXXX.XXXX
Mode	L2C Neighbor Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

identification

Description	From Domain Map Tunnel Configuration or Tunnel Group Tunnel mode, specifies the assignment ID of an L2TP tunnel. The no version removes the assignment ID from the tunnel.
Syntax	identification <i>serverId</i> no identification <ul style="list-style-type: none">■ <i>serverId</i>—L2TP tunnel assignment ID up to 32 characters
Mode	Domain Map Tunnel Configuration, Tunnel Group Tunnel
Release Information	Command introduced before JUNOS Release 7.1.0.

idle-character

Description	Configures the HDLC idle character that is transmitted between HDLC packets. The no version restores the default value.
Syntax	idle-character { flags marks } no idle-character <ul style="list-style-type: none">■ flags—Sets the idle character to 0x7E; the default value■ marks—Sets the idle character to 0xFF
Mode	Interface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

igmp disable

Description	Disables IGMP on a virtual router. The no version reenables IGMP on a virtual router.
Syntax	[no] igmp disable
Mode	Router Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

igmp promiscuous

Description	Allows all IGMP interfaces on the router to accept IGMP reports from hosts on any subnet. The no version allows IGMP interfaces on the router to accept IGMP reports only from hosts on their associated subnets.
Syntax	[no] igmp promiscuous
Mode	Router Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ignore-lsp-errors

Description	Allows the router to ignore IS-IS link-state packets that are received with internal checksum errors rather than purging the link-state packets. The no version disables this function.
Syntax	[no] ignore-lsp-errors
Mode	Router Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ike crl

Description Controls how the router handles certificate revocation lists (CRLs) during negotiation of IKE phase 1 signature authentication. The **no** version returns the CRL setting to the default, optional.



NOTE: This command has been replaced by the **ipsec crl** command and may be removed completely in a future release.

Syntax ike crl { ignored | optional | required }
no ike crl

- ignored—Allows negotiations to succeed even if a CRL is invalid or the peer's certificate appears in the CRL; this is the most lenient setting
- optional—If the router finds a valid CRL, it uses it; this is the default
- required—Requires a valid CRL; either the certificates belonging to the E-series router or the peer must not appear in the CRL; this is the strictest setting

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ike local-identity

Description Sets the local IKE identity used for IKE security association (SA) negotiations. The **no** version removes the local IKE identity.

Syntax ike local-identity { ip address *ipAddress* | username *userName* | domain-name *domainName* }
no ike local-identity

- *ipAddress*—IP address in 32-bit dotted decimal format (for example, 192.56.32.2)
- *userName*—Username used as the IKE local identity for IKE SA negotiations
- *domainName*—Domain name used as the IKE local identity for IKE SA negotiations (string of 1–32 characters)

Mode IPSec Tunnel Profile Configuration

Release Information Command introduced in JUNOS Release 7.3.0.

ike peer-identity distinguished-name

Description Enables this profile to accept logins from users that present an ASN.1-encoded distinguished name as an IKE identity type and the user-provided IKE identity matches each distinguished name field in this profile. The **no** version removes the peer IKE identity.

Syntax ike peer-identity distinguished-name *dnString*
 no ike peer-identity ip address distinguished-name

- *dnString*—String of 1–32 characters used as the distinguished name

Mode IPSec Tunnel Profile Configuration

Release Information Command introduced in JUNOS Release 7.3.0.

ike peer-identity domain-name

Description Enables this profile to accept logins from users that present a userFQDN or FQDN as an IKE identity type and the domain name portion of the IKE identity matches the domain name setting for this profile. The **no** version removes the peer IKE identity.

Syntax ike peer-identity domain-name *domainName*
 no ike peer-identity ip address domain-name

- *domainName*—String of 1–32 characters used as the domain name

Mode IPSec Tunnel Profile Configuration

Release Information Command introduced in JUNOS Release 7.3.0.

ike peer-identity ip address

Description Enables this profile to accept logins from users that present an IP address as an IKE identity type and the IP address resides within the specified network. The **no** version removes the peer IKE identity.

Syntax ike peer-identity ip address *ipAddress* [*ipMask*]
 no ike peer-identity ip address ip address

- *ipAddress*—IP address in 32-bit dotted decimal format (for example, 192.56.32.2)
- *ipMask*—Mask for associated IP subnet in dotted decimal or prefix length notation

Mode IPSec Tunnel Profile Configuration

Release Information Command introduced in JUNOS Release 7.3.0.

ike peer-identity username

Description Enables this profile to accept logins from users that present a userFQDN as an IKE identity type and the username portion of the IKE identity matches the username setting for this profile. The **no** version removes the peer IKE identity.

Syntax ike peer-identity username *userName*
no ike peer-identity ip address username

- *userName*—String of 1–32 characters used as the user name

Mode IPSec Tunnel Profile Configuration

Release Information Command introduced in JUNOS Release 7.3.0.

import map

Description Associates a route map with a VRF to modify and filter routes imported by the VRF from the global BGP VPN RIB. Both IPv4 and IPv6 routes are imported unless you issue the appropriate keyword to restrict importation. The **no** version enables all routes whose route targets match the import route targets of the VRF to be imported without applying a route map.

Syntax import map [ipv4 | ipv6] *routeMap*
no import map [ipv4 | ipv6]

- *ipv4*—Specifies that only IPv4 routes are imported from the global BGP VPN RIB
- *ipv6*—Specifies that only IPv6 routes are imported from the global BGP VPN RIB
- *routeMap*—Name of a route map; string of up to 32 alphanumeric characters

Mode VRF Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

inarp

Description In ATM VC Configuration mode, enables Inverse ARP (InARP) on an ATM PVC that resides on an ATM 1483 NBMA subinterface. Optionally, you can specify the InARP refresh rate. The **inarp** command is valid only for data PVCs configured with **aal5snap** encapsulation; you cannot use this command for data PVCs with other encapsulation types or for control (ILMI or signaling) PVCs. The **no** version restores the default behavior, which disables InARP.

In ATM VC Class Configuration mode, enables InARP as part of a VC class definition that you assign to an ATM data PVC. The **no** version restores the default behavior, which disables InARP, in the VC class.

Syntax inarp [*frequency*]
no inarp

- *frequency*—InARP refresh rate in minutes, in the range 1–60; default value is 15

Mode ATM VC Configuration, ATM VC Class Configuration

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

include circuit-identifier

Description Specifies that the circuit identifier is included when the router automatically generates a username for an IP service profile. The **no** version disables inclusion of the circuit identifier.

Syntax include circuit-identifier *circuitType* [prepend-circuit-type]
no include circuit-identifier

- *circuitType*—Type of circuit; atm or vlan
- prepend-circuit-type—Specifies that the circuit type is included in the username

Mode IP Service Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

include dhcp-option 82

Description Specifies that the agent-circuit-id suboption or the agent-remote-id suboption of the DHCP relay agent information option (option 82) is included when the router automatically generates a username for an IP service profile. The **no** version disables inclusion of the suboption.

Syntax [no] include dhcp-option 82 { agent-circuit-id | agent-remote-id }

Mode IP Service Profile Configuration

Release Information Command introduced in JUNOS Release 7.3.0.

include hostname

Description Specifies that the router's hostname is included when the router automatically generates a username for an IP service profile. The **no** version disables inclusion of the hostname.

Syntax [no] include hostname

Mode IP Service Profile Configuration

Release Information Command introduced in JUNOS Release 7.3.0.

include ip-address

Description Specifies that the IP address is included when the router automatically generates a username for an IP service profile. The **no** version disables inclusion of the IP address.

Syntax [no] include ip-address

Mode IP Service Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

include mac-address

Description Specifies that the MAC address is included when the router automatically generates a username for an IP service profile. The **no** version disables inclusion of the MAC address.

Syntax [no] include mac-address

Mode IP Service Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

include virtual-router-name

Description Specifies that the virtual router name is included when the router automatically generates a username for an IP service profile. The **no** version disables inclusion of the virtual router name.

Syntax [no] include virtual-router-name

Mode IP Service Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

index

Description	Sets a next hop at a particular index in the MPLS explicit path. The no version removes the next hop from the index.
Syntax	<pre>index <i>indexNumber</i> next-address <i>ipAddress</i> [[<i>mask</i>] <i>ipMask</i>] [<i>loose</i>]</pre> <pre>no index <i>indexNumber</i></pre> <ul style="list-style-type: none"> ■ <i>indexNumber</i>—Number of a node in an ordered set of abstract nodes; in the range 1–255 ■ <i>ipAddress</i>—Address of the next hop ■ <i>ipMask</i>—[not currently used] mask for the next adjacent address ■ <i>loose</i>—Node is not necessarily directly connected (adjacent) to the previous node in the path. If <i>loose</i> is not configured, the configuration defaults to <i>strict</i>. <i>Strict</i> indicates that the node is directly connected to the previous node.
Mode	Explicit Path Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

instance-interface-type

Description	Assigns an instance-interface type to a QoS parameter definition. Instance-interface types indicate the interfaces for which QoS clients can assign QoS parameter instances. You can specify up to eight instance-interface types for each parameter definition. The no version removes the specified instance-interface type from the parameter definition.
Syntax	<pre>instance-interface-type <i>instanceInterfaceType</i></pre> <pre>no instance-interface-type { <i>instanceInterfaceType</i> all }</pre> <ul style="list-style-type: none"> ■ <i>instanceInterfaceType</i>—One of the following instance-interface types: atm, atm-vc, atm-vp, bridge, ethernet, fr-vc, ip, ip-tunnel, ipv6, lag, l2tp-session, l2tp-tunnel, lsp, pppoe, serial, server-port, svlan, vlan ■ <i>all</i>—Removes all instance-interface types
Mode	QoS Parameter Definition
Release Information	Command introduced in JUNOS Release 7.1.0. lag keyword added in JUNOS Release 8.1.0.
Related Topics	<ul style="list-style-type: none"> ■ Configuring a Basic Parameter Definition for QoS Administrators

interface

Description Configures an interface. The **no** version removes the subinterface or the logical interface.



NOTE: See the individual **interface** command entries for the syntax for each type of interface.

Syntax [no] interface *interfaceType* *interfaceSpecifier* [*extension*]

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *extension*—Option that depends on the type of interface

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

interface atm

Description Configures an ATM interface or subinterface type. The **no** version removes the interface or subinterface.



NOTE: On the OC3-2 GE APS I/O module, you can configure only OC3/STM1 ATM interfaces in ports 0 and 1. Port 2 is reserved for a Gigabit Ethernet interface.

Syntax [no] interface atm *interfaceSpecifier* [multipoint | point-to-point]

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- multipoint—Specifies an NBMA subinterface
- point-to-point—Specifies an ATM interface or subinterface; default

Mode Global Configuration, Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

Related Topics

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

interface-event-disable

Description Specifies that RIP does not purge the routing table on a RIP interface that has been brought down. The **no** version restores the default condition, wherein RIP does purge the routing table on an interface after a down event.

Syntax [no] interface-event-disable

Mode Address Family Configuration, Router Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

interface fastEthernet

Description Specifies a Fast Ethernet interface or subinterface or creates a subinterface over a Fast Ethernet interface. The **no** version removes the interface or subinterface.

Syntax [no] interface fastEthernet *interfaceSpecifier*

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

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

Related Topics

- Configuring Customer-facing Interfaces in the L2VPN Instance
- Configuring Ethernet/VLAN Layer 2 Services
- Configuring Local Cross-Connects Between Ethernet/VLAN Interfaces
- Configuring S-VLAN Tunnels for Layer 2 Services

interface gigabitEthernet

Description Specifies or creates a Gigabit Ethernet interface or a subinterface over a Gigabit Ethernet interface. The **no** version removes the interface or subinterface.



NOTE: On the GE I/O module, you can configure only the primary port, 0. The router automatically uses the redundant port, 0R, if the primary port fails.

On the GE-2 APS I/O module, you can configure only the primary ports, 0 and 1. The router automatically uses the corresponding redundant port, 0R or 1R, if the primary port fails.

On the OC3-2 GE APS I/O module, you can configure only a Gigabit Ethernet interface in port 2. Ports 0 and 1 are reserved for OC3/STM1 ATM interfaces.

On the ES-2 GE-4 IOA, you can configure all four ports.

Syntax [no] interface gigabitEthernet *interfaceSpecifier*

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

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

Related Topics

- Configuring the QoS Shaping Mode for Ethernet Interfaces on the ES2 4G LM
- Creating a QoS Interface Hierarchy for Bulk-Configured VLAN Subinterfaces with RADIUS
- Configuring a Parameter Definition to Shape Ethernet Traffic Using Cell Mode

interface ip

Description Defines a shared IP interface. The **no** version removes the IP interface.

Syntax [no] interface ip *interfaceName*

- *interfaceName*—String of up to 15 characters

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

interface ipv6

Description Defines a shared IPv6 interface. The **no** version removes the IPv6 interface.

Syntax [no] interface ipv6 *interfaceName*

- *interfaceName*—String of up to 15 characters

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

interface lag

Description Creates an IEEE 802.3ad link aggregation group (LAG) interface, also known as a LAG bundle, or a subinterface in a LAG bundle. Link aggregation enables you to group multiple Ethernet physical interfaces configured on the same module and with the same characteristics into a single logical interface. The individual Ethernet interfaces are referred to as member links of the LAG bundle. The **no** version removes the LAG bundle or subinterface.

Syntax [no] interface lag *interfaceSpecifier*

- *interfaceSpecifier*—LAG interface specifier; see *Interface Types and Specifiers* in *About This Guide*

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

Related Topics

- Configuring the Scheduler Hierarchy for Hashed Load Balancing in 802.3ad Link Aggregation Groups
- Configuring the Scheduler Hierarchy for Subscriber Load Balancing in 802.3ad Link Aggregation Groups
- Configuring Load Rebalancing Parameters for 802.3ad Link Aggregation Groups

interface loopback

Description Defines a loopback interface, which provides a stable address for protocols (for example, BGP, Telnet, or LDP) to use so that they can avoid any impact if a physical interface goes down. The loopback interface sends packets back to the router or access server for local processing. Any packets routed from the loopback interface, but not destined to the loopback interface, are dropped. The **no** version deletes the loopback interface.



NOTE: Do not confuse loopback with the null 0 interface. Traffic routed to null 0 is discarded on the line module.

Syntax [no] interface loopback *interfaceSpecifier*

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

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

Related Topics

- Configuring an MPLS Pseudowire with VCC Cell Relay Encapsulation
- Configuring Local ATM Cross-Connects with AAL5 Encapsulation
- Configuring Local Cross-Connects Between Ethernet/VLAN Interfaces
- Configuring the Loopback Interface and Router ID for BGP

interface mlframe-relay

Description Defines an MLFR bundle or a subinterface in a bundle. The **no** version removes the bundle or subinterface.

Syntax [no] interface mlframe-relay *interfaceSpecifier*

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

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

interface mlppp

Description Creates an MLPPP network interface, also known as the MLPPP bundle. The **no** version deletes the MLPPP bundle.

Syntax [no] interface mlppp *interfaceSpecifier*

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

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

interface null

Description Selects the null interface, which does not forward traffic. The null interface acts as a data sink. Though you can access the null interface, you cannot configure any values for it or delete it. There is no **no** version.

Syntax interface null 0

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

interface pos

Description Configures a Packet over SONET interface. The **no** version removes the interface.

Syntax [no] interface pos *interfaceSpecifier*

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

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

Related Topics

- Configuring HDLC Layer 2 Services

interface serial

Description Specifies the location of the serial interface on CT3 and COCX-F3 modules. The **no** version disables the interface.

Syntax [no] interface serial *interfaceSpecifier*

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

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

Related Topics

Configuring Frame Relay Layer 2 Services

Related Topics

- Configuring HDLC Layer 2 Services

interface tenGigabitEthernet

Description Specifies or creates a 10-Gigabit Ethernet interface or a subinterface over a 10-Gigabit Ethernet interface. The **no** version removes the interface or subinterface.

Syntax [no] interface tenGigabitEthernet *interfaceSpecifier*

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

Mode Global Configuration

Release Information Command introduced in JUNOS Release 7.1.0.

interface tunnel

Description Creates a tunnel interface for use by DVMRP, GRE, IPSec, or MPLS. You can specify that the tunnel be established in the routing space of a virtual router other than the current VR. If you specify another VR, all tunnel commands apply to the tunnel in that VR. If you do not specify another VR, tunnel commands apply to the current VR. For DVMRP and GRE tunnels, you can specify that the tunnel be protected with IPSec in transport mode. The **no** version removes the tunnel interface.

Syntax [no] interface tunnel *interfaceSpecifier* [transport-virtual-router *vrName*]
[ipsec-transport]

- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *vrName*—Name of virtual router (other than the current VR) in which the tunnel will be established
- ipsec-transport—Indicates that the tunnel is protected with IPSec in transport mode; used for GRE or DVMRP tunnels only

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

invert data

Description Enables data stream inversion. Data stream inversion must be turned on by network personnel at the other end of the line. The **no** version disables data stream inversion.

Syntax [no] invert data

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip

Description Modifies the subscriber policy for IP to define whether the subscriber (client) interfaces that belong to a bridge group or to a VPLS instance forward (permit) or filter (deny) IP packets. The **no** version restores the default value, permit IP packets.

You cannot change the default subscriber policy values for trunk (server) interfaces that belong to a bridge group or to a VPLS instance. You also cannot change the default subscriber policy values for a VPLS virtual core interface, which acts as a trunk interface. The VPLS virtual core interface represents all of the MPLS tunnels from the router to the remote VPLS edge (VE) devices.

Syntax ip { permit | deny }
no ip

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

Mode Subscriber Policy Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip access-routes

Description Enables the ability to create host access routes on a PPP interface, which is useful for the B-RAS application. It also enables an access route in a profile. The **no** version disables the feature.

Syntax [no] ip access-routes

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip access-route table-map

Description Filters access routes before an access list adds them to the routing table. The **no** version deletes the table map.

Syntax [no] ip access-route table-map *mapName*

- *mapName*—Name of the table map that you want the router to use

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip address

Description Sets a primary or secondary IP address for an interface or subinterface. The **no** version removes an IP address or disables IP processing. You must specify the layer 2 encapsulation before you can set the IP address.

Syntax `ip address ipAddress ipMask [secondary]`
`no ip address [ipAddress ipMask [secondary]]`

- *ipAddress*—IP address in 32-bit dotted decimal format (for example, 192.56.32.2)
- *ipMask*—mask for associated IP subnet in dotted decimal or prefix length notation
- *secondary*—Specifies that the configured address is a secondary IP address; if omitted, the configured address is the primary IP address

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

Related Topics

- Configuring Local ATM Cross-Connects with AAL5 Encapsulation
- Configuring Local Cross-Connects Between Ethernet/VLAN Interfaces
- Configuring the Loopback Interface and Router ID for BGP
- Configuring MPLS LSPs

ip-address

Description Specifies the IP address parameter for a user entry in the local user database. The **no** version deletes the IP address parameter from the user entry.

Syntax `ip-address ipAddress`
`[no] ip-address`

- *ipAddress*—IP address in 32-bit dotted decimal format (for example, 192.56.32.2)

Mode Local User Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip address-pool

Description Specifies to the router where to get an IP address for the remote user. The **no** version uses the default value, **local**.

Syntax ip address-pool { dhcp | local | none }
no ip address-pool

- dhcp—Enables the use of a DHCP server for address allocations
- local—Enables the use of local address pool for address allocations
- none—Does not enable an IP address pool

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip-address-pool

Description Specifies the IP address pool parameter for a user entry in the local user database. The address pool is used to assign an IP address to the subscriber. The **no** version deletes the IP address pool parameter from the user entry in the local user database.

Syntax ip-address-pool *poolName*
no ip-address-pool

- *poolName*—Name of IP address pool

Mode Local User Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip address virtual-router

Description Limits the scope of the IKE policy rule to the specified local IP address on the specified virtual router. This limitation ensures that this policy rule is evaluated for IKE source address evaluations for only the specified IP address and virtual router. The **no** version removes IP address and virtual router limitation.

Syntax [no] ip address *ipAddress* virtual-router *vrName*
no ip address

- *ipAddress*—IP address in 32-bit dotted decimal format (for example, 192.56.32.2) to which you want to limit this policy rule
- *vrName*—Name of virtual router to which you want to limit this policy rule

Mode IKE Policy Configuration

Release Information Command introduced in JUNOS Release 7.3.0.

ip alwaysup

Description Forces the interface to appear as if it is up, regardless of the state of the lower layers. Use this command to reduce route topology changes when the network attached to this link is single-homed. The **no** version makes the interface appear in its current state.

Syntax [no] ip alwaysup

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip analyzer

Description Configures an interface as an analyzer interface, for use in an interface mirroring configuration. The **no** version removes the analyzer interface configuration from the interface.

Syntax ip analyzer [default]

no ip analyzer

- default—Specifies that this interface is the default analyzer interface for the virtual router

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

Related Topics

- Configuring CLI-Based Mirroring
- Configuring RADIUS-Based Mirroring

ip as-path access-list

Description Defines a BGP-related access list. You can specify an access list filter on both inbound and outbound BGP routes. Each filter is an access list based on regular expressions. If the regular expression matches the representation of the AS path of the route as an ASCII string, then the permit or deny condition applies. The AS path does not contain the local AS number. The **no** version removes a single access list entry if **permit** or **deny** and a *pathExpression* are specified. Otherwise, the entire access list is removed.

Syntax `ip as-path access-list accessListName { permit | deny } pathExpression`
`no ip as-path access-list accessListName [{ permit | deny } pathExpression]`

- *accessListName*—Name of the access list; a string of up to 32 characters
- **permit**—Permits access for matching conditions
- **deny**—Denies access to matching conditions
- *pathExpression*—Regular expression describing the AS paths to be matched

Use a sequence of one or more elements, each of which is either an AS number or one of the following punctuation characters:

- ^ start of the path
- \$ end of the path
- { start of an AS_SET
- } end of an AS_SET
- (start of an AS_CONFED_SET or AS_CONFED_SEQ
-) end of an AS_CONFED_SET or AS_CONFED_SEQ

Use the following regular expression metacharacters to match individual elements:

- . matches any single element
- * matches zero or more occurrences of any element
- + matches one or more occurrences of any element
- [] matches any elements enclosed between brackets ([])
- hyphen; used within brackets to specify a range of AS numbers
- ^ matches any AS number except the ones specified when used as a first item within brackets
- _ underscore; used in implementations on routers from other vendors on either side of a path to specify a literal and disallow substring matching. Allowed but not required in our CLI.

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip atm-vc

Description	Associates a protocol and address to a specific virtual circuit. The no version removes the association.
Syntax	<pre>ip <i>ipAddress</i> atm-vc <i>vcd</i> broadcast no ip <i>ipAddress</i> atm-vc <i>vcd</i></pre> <ul style="list-style-type: none"> ■ <i>ipAddress</i>—IP address to be associated with the virtual circuit ■ <i>vcd</i>—Number in the range 1–2147483647; virtual circuit descriptor; an identifier for the VC in other commands ■ <i>broadcast</i>—Specifies that the circuit should participate in broadcast operations
Mode	Map List Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip auto-configure ip-subscriber

Description	Configures a primary IP interface to support creation of dynamic subscriber interfaces. The include-primary and exclude-primary keywords specify whether the primary interface can be assigned to a subscriber. The no version disables creation of dynamic subscriber interfaces on this primary IP interface.
Syntax	<pre>[no] ip auto-configure ip-subscriber [include-primary exclude-primary]</pre> <ul style="list-style-type: none"> ■ <i>include-primary</i>—Specifies that the primary interface can be assigned to a subscriber; the no version disables the assignment of the primary interface ■ <i>exclude-primary</i>—Specifies that the primary interface cannot be assigned to a subscriber; the no version enables the assignment of the primary interface
Mode	Interface Configuration, Profile Configuration, Subinterface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0. include-primary and exclude-primary keywords added in JUNOS Release 7.1.0.

ip auto-detect ip-subscriber

Description	Sets the router's packet detect feature, specifying that IP automatically detect packets that do not match any entries in the demultiplexer table. When an unmatched packet is detected, an event is generated that determines whether to create a dynamic subscriber interface or to configure an existing interface. The no version disables autodetection.
Syntax	<pre>[no] ip auto-detect ip-subscriber</pre>
Mode	Interface Configuration, Profile Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip bgp-community new-format

Description Specifies that communities must be displayed in *AA:NN* format, where *AA* is a number that identifies the autonomous system and *NN* is a number that identifies the community within the autonomous system. The **no** version restores the default display.

Syntax [no] ip bgp-community new-format

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip bgp-confed-as-set new-format

Description Specifies that AS-confed-sets must be displayed within square brackets, [], with the ASs delimited by commas. The **no** version restores the default, displaying AS-confed-sets within parentheses, (), with the ASs delimited by spaces.

Syntax [no] ip bgp-confed-as-set new-format

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip block-multicast-sources

Description Prevents mroute creation by blocking multicast traffic that has a scope larger than link-local (for example, global). In Profile Configuration mode, blocks multicast sources per user on dynamic IP interfaces. The **no** version restores the default behavior of creating mroutes upon receiving multicast packets.

Syntax [no] ip block-multicast-sources

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.
Profile Configuration mode added in JUNOS Release 8.1.0.

ip broadcast-address

Description Defines a broadcast address for an interface. The **no** version restores the default IP broadcast address.

Syntax [no] ip broadcast-address [*ipAddress*]
■ *ipAddress*—Broadcast IP address

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip classifier-list

Description Creates or modifies a classifier control list. Use the **not** keyword to deny traffic for a specific protocol, source address, or destination address. Use the **any** keyword to allow traffic to any source or destination address. The **no** version removes the classifier control list.

Syntax `ip classifier-list classifierName [traffic-class trafficClassName]
[color { green | yellow | red }] [user-packet-class userPacketClassValue]
[source-route-class routeClassValue] [destination-route-class routeClassValue]
[local { true | false }] [not] { protocol }
[not] { sourceAddress sourceMask | host sourceHostAddress | any } [sourceQualifier]
[not] { destinationAddress destinationMask | host destinationHostAddress | any }
[destinationQualifier] [tcpQualifier] [ip-flags ipFlags]
[ip-frag-offset { eq 0 | eq 1 | gt 1 }]
[precedence precNum | dsField dsFieldNum | tos tosNum]`

`no ip classifier-list classifierName [classifierNumber]`

- *classifierName*—Name of the classifier control list entry
- *trafficClassName*—Name of the traffic class to match
- *green*—Matches packet color to green, indicating a low drop preference
- *yellow*—Matches packet color to yellow, indicating a medium drop preference
- *red*—Matches packet color to red, indicating a high drop preference
- *userPacketClassValue*—User packet value to match; in the range 0–15
- *routeClassValue*—Value of the route-class; in the range 0–255
- *local*—Specifies traffic destined for this interface
 - *true*—Matches packets that are locally destined
 - *false*—Matches packets that are not locally destined
- *not*—Matches any except the immediately following protocol or address
- *protocol*—Protocol name (IGMP, IP, TCP, or UDP) or number (in the range 0–255) to match
- *sourceAddress*—Source address to match
- *sourceMask*—Wild-card mask to apply to the source address
- *host*—Matches source or destination address as a host
- *sourceHostAddress*—Source host address to match
- *any*—Matches any source or destination address

- *sourceQualifier*—For UDP or TCP protocols, one of the following protocol-specific classifier parameters. See *JUNOS Policy Management Configuration Guide, Chapter 2, Creating Classifier Control Lists for Policies*, for details.
 - *portOperator*—One of the following Boolean operator keywords: **lt** (less than), **gt** (greater than), **eq** (equal to), **ne** (not equal), or **range** (range of port numbers)
 - *range*—Single port number or a range of port numbers
- *destinationAddress*—Destination address to match
- *destinationMask*—Wild-card mask to apply to the destination address
- *destinationHostAddress*—Destination host address to match
- *destinationQualifier*—One of the following protocol-specific classifier parameters for destination TCP or UDP ports, ICMP code and type, or IGMP type. The *portOperator* and port range are used with TCP and UDP. The *icmpType*, *icmpCode*, and *igmpType* parameters are used with ICMP and IGMP.
 - *portOperator*—one of the following Boolean operator keywords: **lt** (less than), **gt** (greater than), **eq** (equal to), or **ne** (not equal), or **range** (range of port numbers) (TCP and UDP only)
 - *range*—Single port number or a range of port numbers
 - *icmpType*—ICMP message type (ICMP only)
 - *icmpCode*—ICMP message code (ICMP only)
 - *igmpType*—IGMP message type (IGMP only)
- *tcpQualifier*—TCP flags classification parameters
- *tcpFlag*—For TCP only; a logic equation that specifies flag bit values; ! means logical NOT and & means logical AND; use any of the following flag names:
 - *ack*—0x10
 - *fin*—0x01
 - *push*—0x08
 - *rst*—0x04
 - *syn*—0x02
 - *urgent*—0x20
- *ipFlags*—Logic equation that specifies flag bit values; ! means logical NOT and & means logical AND; use any of the following flag names:
 - *dont-fragment*—0x02
 - *more-fragments*—0x01
 - *reserved*—0x04
- *ip-frag-offset*—Matches the specified IP fragmentation offset; use any of the following:
 - *eq 0*—Equals 0
 - *eq 1*—Equals 1
 - *gt 1*—Greater than 1

- *precNum*—Upper three bits of the ToS byte; in the range 0–7
- *dsFieldNum*—Upper six bits of the ToS byte; in the range 0–63
- *tosNum*—Whole eight bits of the ToS byte; in the range 0–255
- *classifierNumber*—Index of the classifier control list entry to be deleted

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

Related Topics

- Creating or Modifying Classifier Control Lists for IP Policy Lists

ip community-list

Description Creates a community list for BGP and controls access to it. The **no** version removes the community list, including all list entries.

Syntax Using a regular expression to specify the community:
`[no] ip community-list communityLisName { permit | deny } communityExpression`

Using some other method to specify the community:

```
ip community-list communityLisName { permit | deny }
{ communityNumber | asCommunityNumber | no-export | no-advertise | local-as |
internet } [ communityNumber | asCommunityNumber | no-export | no-advertise |
local-as | internet ]*
```

```
no ip community-list communityLisName [ { permit | deny }
[ { communityNumber | asCommunityNumber | no-export | no-advertise | local-as |
internet } ] [ communityNumber | asCommunityNumber | no-export | no-advertise |
local-as | internet ]*
```

- *communityLisName*—Name of a community list; a string of up to 32 characters; identifies one or more permit or deny groups of communities; used for standard community lists
- permit—Permits access for a matching condition
- deny—Denies access for a matching condition
- *communityExpression*—Regular expression that matches the community

- *communityNumber*—Community number in the range 1–4294967295
- *asCommunityNumber*—Community number in the format *AA:NN*, where *AA* is a number that identifies the autonomous system and *NN* is a number that identifies the community within the autonomous system.
- *no-export*—Specifies that BGP does not advertise this route outside a BGP confederation boundary
- *no-advertise*—Specifies that BGP does not advertise this route to any peer (internal or external)
- *local-as*—Specifies that BGP does not advertise this route to external peers; sometimes known as the *no-export-subconfed* community
- *internet*—Specifies the Internet community
- ***—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip debounce-time

Description Defines the minimum time an IP interface must be in a given state—for example, up or down—before being reported. The **no** version removes the debounce time.

Syntax `ip debounce-time [vrf vrfName] period`
`no ip debounce-time [vrf vrfName]`

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *period*—Interval in the range 0–60000 milliseconds

Mode Global Configuration, Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip demux-type da-prefix

Description Specifies that a subscriber interface will demultiplex traffic using destination addresses. The **no** version restores the default situation, in which the subscriber interface demultiplexes traffic using source addresses.

Syntax `[no] ip demux-type da-prefix`

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip description

Description Assigns a text description or an alias to a static IP interface or subinterface. If no IP interface currently exists, then a static IP interface is automatically created on the current layer 2 interface and the description is applied to that static IP interface. You cannot assign a profile to a layer 2 interface that has a static interface configured above it. Use the **show ip interface** command to display the text description. The **no** version removes the description or alias.



NOTE: This command is replacing the **description** command to assign a description to a static IP interface. The **description** command may be removed completely from Interface Configuration mode in a future release.

Syntax ip description *name*
no ip description

- *name*—Name for the static IP interface; string of up to 256 characters

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip destination-prefix

Description Configures a subscriber interface or a primary IP interface that is enabled for dynamic creation of subscriber interfaces to demultiplex traffic with the specified destination address. The **no** version removes the association between the interface and the specified destination address.

Syntax [no] ip destination-prefix *ipAddress ipAddressMask* deny

- *ipAddress*—Destination IP address that the router uses to identify packets for this interface
- *ipAddressMask*—Network mask for associated IP subnet
- deny—Filters packets matching this command

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip dhcp-capture

Description Configures the E-series router to capture and log DHCP packet information for an interface. By default, DHCP packet information is not captured. The **no** version restores the default behavior.

Syntax `ip dhcp-capture { all | receive | transmit } [priority { low | high }]`
`no ip dhcp-capture { all | receive | transmit }`

- `all`—Captures received and transmitted packets
- `receive`—Captures received packets
- `transmit`—Captures transmitted packets
- `low`—Captured packets arrive with low priority; the default priority
- `high`—Captured packets arrive with high priority

Mode Interface Configuration

Release Information Command introduced in JUNOS Release 7.3.0.

ip dhcp-external auto-configure

Description Configures the E-series router to automatically create the user's DSI. This command is specific to a virtual router. The **no** version disables the autoconfigure feature.

Syntax `[no] ip dhcp-external auto-configure [agent-circuit-identifier]`

- `agent-circuit-identifier`—Creates dynamic subscriber interfaces built over dynamic VLANs that are based on the agent-circuit-id option (suboption 1) of the option 82 field in DHCP messages.

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.
agent-circuit-identifier keyword added in JUNOS Release 7.3.0.

ip dhcp-external disregard-giaddr-next-hop

Description Configures the DHCP external application to disregard the giaddr in packets destined for the DHCP server when the next hop for a subscriber's access route is determined. The **no** version returns to the default, in which DHCP external uses the giaddr to determine the next hop.

Syntax `[no] ip dhcp-external disregard-giaddr-next-hop`

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip dhcp-external server-address

Description Configures a DHCP server that is used to determine which DHCP packets are monitored. The **no** version removes the DHCP server.

Syntax [no] ip dhcp-external server-address *ipAddress*

- *ipAddress*—IP address of the external DHCP server; you can specify a maximum of four servers

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip dhcp-external server-sync

Description Creates subscriber state information based on lease renewals when the external DHCP server is unsynchronized with the E-series router. The **no** version disables this feature.

Syntax [no] ip dhcp-external server-sync

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip dhcp-local auth domain

Description Specifies a domain name for a username that is locally configured for a DHCP standalone mode client. In standalone mode, the locally configured username is presented to AAA in an authentication request. The **no** version removes the domain name.

Syntax [no] ip dhcp-local auth domain *domainName*

- *domainName*—String of 1–32 characters used as the domain name

Mode Global Configuration

Release Information Command introduced in JUNOS Release 7.1.0.

ip dhcp-local auth include

Description	Includes optional information as part of the locally configured username for a DHCP standalone mode client. In standalone mode, the username is presented to AAA in an authentication request. The no version removes the specified optional information.
Syntax	<pre>[no] ip dhcp-local auth include { circuit-identifier circuit-type mac-address option82 virtual-router-name }</pre> <ul style="list-style-type: none">■ circuit-identifier—Specifies the circuit identifier of the interface on which the DHCP client's request was received■ circuit-type—Specifies the circuit type of the interface on which the DHCP client's request was received■ mac-address—Specifies the DHCP client's MAC address■ option82—Specifies the DHCP client's Option 82 value■ virtual-router-name—Specifies the DHCP local server's virtual router name
Mode	Global Configuration

Release Information Command introduced in JUNOS Release 7.1.0.

ip dhcp-local auth password

Description	Assigns a password used to authenticate a locally configured DHCP standalone mode client. In DHCP standalone mode, the password is presented to AAA in an authentication request. The no version removes the password.
Syntax	<pre>[no] ip dhcp-local auth password <i>password</i></pre> <ul style="list-style-type: none">■ <i>password</i>—String of 1–32 characters used as the password
Mode	Global Configuration

Release Information Command introduced in JUNOS Release 7.1.0.

ip dhcp-local auth user-prefix

Description	Specifies a user prefix for a username that is locally configured for a DHCP standalone mode client. In DHCP standalone mode, the username is presented to AAA in an authentication request. The no version removes the user prefix.
Syntax	<pre>[no] ip dhcp-local auth user-prefix <i>userNamePrefix</i></pre> <ul style="list-style-type: none">■ <i>userNamePrefix</i>—String of 1–32 characters used as the prefix for a locally configured username
Mode	Global Configuration

Release Information Command introduced in JUNOS Release 7.1.0.

ip dhcp-local auto-configure agent-circuit-identifier

Description Configures the DHCP local server to support the creation of dynamic subscriber interfaces built over dynamic VLANs that are based on the agent-circuit-id option (suboption 1) of the option 82 field in DHCP messages. This command is specific to a virtual router. The **no** version disables the autoconfigure feature.

Syntax [no] ip dhcp-local auto-configure agent-circuit-identifier

Mode Global Configuration

Release Information Command introduced in JUNOS Release 7.3.0.

ip dhcp-local cable-modem

Description Specifies the IP address of the external DHCP server to which the DHCP local server will relay DHCP messages from cable modems. The **no** version removes the cable modem configuration.



NOTE: This command is deprecated and might be removed completely in a future release. Use the **set dhcp vendor-option** command to configure the vendor class identifier option to match the string used by cable modems to replace the function of this command.

Syntax [no] ip dhcp-local cable-modem dhcp-server *ipAddress*

- *ipAddress*—IP address of the cable modem DHCP server

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip dhcp-local excluded-address

Description Specifies IP addresses that the DHCP local server should not supply from the default address pool because those addresses are already used by devices on the subnet. The **no** version allows the DHCP local server to supply the specified IP address.

Syntax [no] ip dhcp-local excluded-address *ipAddressStart* *ipAddressStop*

- *ipAddressStart*—Single IP address or start of the range of IP addresses that the DHCP local server should not supply
- *ipAddressStop*—End of the range of IP addresses that the DHCP local server should not supply

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip dhcp-local limit

- Description** Specifies the maximum number of IP addresses that the DHCP local server can supply to each VPI/VCI, VLAN, or Ethernet subnetwork, or to a particular interface or subinterface. The **no** version restores the default value.
- Syntax** ip dhcp-local limit
{ atm | ethernet | vlan | interface *InterfaceType* *InterfaceSpecifier* } *value*
no ip dhcp-local limit [atm | ethernet | vlan | interface *InterfaceType* *InterfaceSpecifier*]
- atm—Specifies the limit for VPIs and VCIs
 - ethernet—Specifies the limit for Ethernet subnets
 - vlan—Specifies the limit for VLANs
 - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
 - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
 - *value*—Maximum number of leases, in the range 0–48000; default is 48000
- Mode** Global Configuration
- Release Information** Command introduced before JUNOS Release 7.1.0.
interface keyword and *interfaceType* and *interfaceSpecifier* variables added in JUNOS Release 7.1.0.

ip dhcp-local pool

- Description** Accesses DHCP Local Pool Configuration mode. The **no** version prevents the DHCP local server from supplying IP addresses from the specified pool.
- Syntax** [no] ip dhcp-local pool { *poolName* | default }
- *poolName*—Name of the address pool
 - default—Specifies the default address pool
- Mode** Global Configuration
- Release Information** Command introduced before JUNOS Release 7.1.0.

ip dhcp-local snmpTraps

- Description** Enables DHCP local server SNMP traps. The **no** version disables DHCP local server SNMP traps.
- Syntax** [no] ip dhcp-local snmpTraps
- Mode** Global Configuration
- Release Information** Command introduced before JUNOS Release 7.1.0.

ip dhcp-local unique-client-ids

Description Configures the method that DHCP local server uses when it receives a DHCP DISCOVER or REQUEST packet from a client ID or hardware address that matches the client ID or hardware address of a currently bound client on another subnet or subinterface.

Use this command to specify that DHCP local server uses a method that considers a request from a client with a duplicate client ID or hardware address to be from a roaming client—the server then terminates the currently bound client's existing lease and assigns a new address to the requesting client.

The **no** version restores the default behavior, in which DHCP local server uses the DHCP client's subnet or subinterface to differentiate between two clients that use the same client ID or hardware address—the DHCP server processes requests in the normal manner.



NOTE: This command replaces the **ip dhcp-local inhibit-roaming** command, which has been removed from the CLI.

Syntax [no] ip dhcp-local unique-client-ids

Mode Global Configuration

Release Information Command introduced in JUNOS Release 8.0.0.

ip dhcp-server

Description Adds the IP address of a single DHCP server to the list of DHCP servers from which the router can request addresses to allocate to remote users. A maximum of five DHCP servers can be specified. The **no** version removes the specified DHCP server or removes all DHCP servers from the list.

Syntax ip dhcp-server *dhcpServerAddress* [*adminStatus*]
no ip dhcp-server [*dhcpServerAddress* [*adminStatus*]]

- *dhcpServerAddress*—IP address of the DHCP server that will allocate addresses for remote users
- *adminStatus*—One of the following options:
 - disable—Disables the DHCP server
 - drain—Drains the DHCP server

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip directed-broadcast

Description	Enables translation of directed broadcast to physical broadcasts. The no version disables the function.
Syntax	[no] ip directed-broadcast
Mode	Interface Configuration, Profile Configuration, Subinterface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip disable-forwarding

Description	Disables forwarding of packets on the SRP Ethernet interface to maintain router performance. The no version enables forwarding of packets on the SRP Ethernet interface. You see an error message if you try to set this command for interfaces other than the SRP Ethernet interface.
Syntax	[no] ip disable-forwarding
Mode	Interface Configuration, Subinterface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip domain-lookup

Description	Without the transit-virtual-router option, enables the router to query the configured DNS name servers when it needs an IP hostname-to-IP address translation. With the transit-virtual-router option, configures a virtual router to use the name servers you configured for another virtual router. The no version without the transit-virtual-router option restores the default situation, in which the router does not query the DNS server. The no version with the transit-virtual-router option stops a virtual router from using the same name servers you configured for another virtual router.
Syntax	[no] ip domain-lookup [transit-virtual-router <i>vrName</i>] <ul style="list-style-type: none">■ <i>vrName</i>—Name of the virtual router that has the DNS configuration you want to use for a second virtual router
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip domain-name

Description Defines a default domain name for the clients that a name resolver serves. The **no** version deletes the domain name; that is, the domain name will no longer be appended to hostnames in the static host table.

Syntax [no] ip domain-name *domainName*

- *domainName*—Default domain name for your hosts

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip dos-protection-group

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

Syntax ip dos-protection-group *groupName*
no ip dos-protection-group

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

Mode Interface Configuration

Release Information Command introduced in JUNOS Release 8.1.0.

ip dvmrp

Description Activates DVMRP on an interface. The **no** version removes DVMRP from an interface.

Syntax [no] ip dvmrp

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip dvmrp accept-filter

Description Filters incoming DVMRP reports in accordance with a standard IP access list. The **no** version disables the filter.

Syntax [no] ip dvmrp accept-filter *listName1* [*distance*] neighbor-list *listName2*

- *listName1*—Name of the IP access list. If the name is 0, the interface accepts all destinations. You can specify a simple or extended access list; with an extended access list you can specify an address and a subnet mask.
- *distance*—Number in the range 0–255; default value is 0; the distance associated with the DVMRP route when the router determines the RPF interface for the source of a multicast packet
- *listName2*—Name of an access list containing the neighbors from which the router will accept reports. If the name is 0, the interface accepts destinations from all its neighbors.

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip dvmrp announce-filter

Description Specifies a list of DVMRP routes that the router will advertise on an interface. The **no** version restores the default situation, in which the router advertises all known routes on the interface.

Syntax ip dvmrp announce-filter *listName*
no ip dvmrp announce-filter

- *listName*—Name of the IP access list that specifies the DVMRP routes that the router will advertise on the interface. You can specify a simple or extended access list; with an extended access list you can specify an address and a subnet mask.

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip dvmrp auto-summary

Description Summarizes routes automatically on an interface. By default, automatic summarization is enabled. The **no** version disables automatic summarization.

Syntax [no] ip dvmrp auto-summary

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip dvmrp disable

Description Disables DVMRP on an interface without removing the DVMRP configuration. The **no** version reenables the DVMRP configuration on a disabled interface.

Syntax [no] ip dvmrp disable

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip dvmrp metric-offset

Description Adjusts the number of hops associated with routes passing through an interface. This action indicates that the route is more efficient or less efficient than an alternative route. The **no** version restores the default values.

Syntax [no] ip dvmrp metric-offset { in | out } [*increment*]

- in—Increments the number of hops for a DVMRP route advertised in incoming DVMRP reports. If you do not specify a key word, this option is the default.
- out—Increments the number of hops for a DVMRP route advertised in outgoing DVMRP reports
- *increment*—Number of hops associated with this interface; default value is 1 for incoming reports and 0 for outgoing reports.

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip dvmrp route-hog-notification

Description Sets the number of DVMRP routes that the router can record before it generates a system log warning message. The **no** version restores the default setting, 10,000 routes.

Syntax [no] ip dvmrp route-hog-notification [*limit*]
limit—Number in the range 0–2147483647

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip dvmrp route-limit

Description Limits the number of routes that the router can advertise on each interface. The default value is 7000. The **no** version removes the limit for the number of routes that the router can advertise on each interface.

Syntax [no] ip dvmrp route-limit [*limit*]

- *limit*—Number of routes that the router can advertise

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip dvmrp summary-address

Description Advertises a DVMRP summary address on the interface. The **no** version stops the advertising of a summary address on an interface.

Syntax [no] ip dvmrp summary-address *ipAddress mask* [metric *cost*]

- *ipAddress*—Summary address
- *mask*—Subnet mask
- *cost*—Cost associated with this summary address

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip dvmrp unicast-routing

Description Enables the exchange of DVMRP unicast routes on an interface not owned by DVMRP. The **no** version disables the exchange of DVMRP unicast routes on an interface not owned by DVMRP.

Syntax [no] ip dvmrp unicast-routing

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip dynamic-interface-prefix

Description Specifies the prefix for the names of dynamic shared IP interfaces created for overlapping BGP/MPLS VPNs. The **no** version restores the default prefix, **dyn**.

Syntax ip dynamic-interface-prefix [vrf *vrfName*] *prefix*
no ip dynamic-interface-prefix [vrf *vrfName*]

- *vrfName*—Name of the VRF in which the shared interface is created; a string of 1–32 alphanumeric characters
- *prefix*—String of 1–10 alphanumeric characters

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip explicit-path

Description Defines an explicit path by name and also enables or disables explicit path routing in implementations on routers from other vendors. See the **mpls explicit-path** command for a complete description and syntax.

ip extcommunity-list

Description	Defines an extended-community (extcommunity) list to be referenced in a route map. The no version deletes the extcommunity.
Syntax	<pre>ip extcommunity-list <i>listName</i> { permit deny } <i>extendedCommunity</i> [<i>extendedCommunity</i>]* no ip extcommunity-list <i>listName</i> [{ permit deny } <i>extendedCommunity</i> [<i>extendedCommunity</i>]*]</pre> <ul style="list-style-type: none">■ <i>listName</i>—Name of the extended-community list■ permit—Permits membership in the extended community for matching conditions■ deny—Denies membership in the extended community for matching conditions■ <i>extendedCommunity</i>—Extended community specified in the format: {rt soo } { <i>ASN:nn</i> <i>ipAddress:nn</i> }<ul style="list-style-type: none">■ rt—Specifies a route-target community; consists of one or more routers that can receive a set of routes advertised by BGP that carry the extended-community attribute■ soo—Specifies a Site-of-Origin community; consists of one or more routers that injects a set of routes into BGP that carry the extended-community attribute■ <i>ASN:nn</i>—Identifies the extended community by a 16-bit autonomous system number followed by a 32-bit integer■ <i>ipAddress:nn</i>—Identifies the extended community identified by an IP address followed by a 16-bit integer■ *—Indicates that one or more parameters can be repeated multiple times in a list in the command line
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip fallback global

Description	Enables secondary routing table lookup for an interface in a virtual router forwarding table of the parent (global) virtual router if the initial route lookup on a VRF is unsuccessful. The no version discontinues secondary routing table lookup.
Syntax	<pre>[no] ip fallback global</pre>
Mode	VRF Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip filter-options all

Description	Enables filtering of packets with IP options on an interface. IP options filtering is disabled by default. The no version disables filtering of packets with IP options.
Syntax	[no] ip filter-options all
Mode	Interface Configuration, Profile Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.
Related Topics	<ul style="list-style-type: none"> ■ Enabling IP Options Filtering

ip flow-aggregation cache

Description	Creates an aggregation cache and accesses Flow Cache Configuration mode. The no version removes the aggregation cache and its configuration.
Syntax	[no] ip flow-aggregation cache [as destination-prefix prefix protocol-port source-prefix] <ul style="list-style-type: none"> ■ as—Specifies autonomous system aggregation ■ destination prefix—Specifies destination prefix aggregation ■ prefix—Specifies prefix aggregation ■ protocol-port—Specifies protocol port aggregation ■ source-prefix—Specifies source prefix aggregation
Mode	Flow Cache Configuration, Global Configuration
Release Information	Command introduced in JUNOS Release 8.1.0.

ip flow-cache entries

Description	Limits the number of entries in the flow cache (for all line modules in the router). The no version sets the number of entries back to its default value.
Syntax	ip flow-cache entries <i>cacheEntries</i> no ip flow-cache entries <ul style="list-style-type: none"> ■ <i>cacheEntries</i>—Number of cache entries allowed for all line modules in the router in the range 1024–524288; default value is 65536
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip flow-cache timeout

Description	Defines the J-Flow activity or inactivity timers. The no version restores the default value of each timer.
Syntax	<pre>ip flow-cache timeout { active <i>activeTimer</i> inactive <i>inactiveTimer</i> } no ip flow-cache timeout { active inactive }</pre> <ul style="list-style-type: none">■ <i>activeTimer</i>—Value of activity timer in the range 0–60 minutes; default value is 30■ <i>inactiveTimer</i>—Value of inactivity timer in the range 10–600 seconds; default value is 15
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip flow-export

Description	Defines J-Flow export values for the IP flow. The no version removes the export setting.
Syntax	<pre>[no] ip flow-export { <i>hostName</i> <i>ipAddress</i> } <i>udpPort</i> version 5 [<i>peer-as</i> <i>origin-as</i>] [no] ip flow-export destination { <i>hostName</i> <i>ipAddress</i> } <i>udpPort</i> [no] ip flow-export source <i>interfaceType</i> <i>interfaceSpecifier</i> [no] ip flow-export version 5 [<i>peer-as</i> <i>origin-as</i>]</pre> <ul style="list-style-type: none">■ <i>hostName</i>—Name of the remote host for outgoing export datagrams■ <i>ipAddress</i>—IP address of the export destination host■ <i>udpPort</i>—UDP port number■ <i>version 5</i>—Specifies version 5 of the J-Flow statistical information■ <i>peer-as</i>—Exports peer-as information■ <i>origin-as</i>—Exports origin-as information■ <i>destination</i>—Specifies destination for outgoing export datagrams■ <i>source</i>—Specifies source interface for outgoing export datagrams■ <i>interfaceType</i>—Interface type; see <i>Interface Types and Specifiers</i> in <i>About This Guide</i>■ <i>interfaceSpecifier</i>—Particular interface; format varies according to interface type; see <i>Interface Types and Specifiers</i> in <i>About This Guide</i>
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip flow-sampling-mode packet-interval

Description Defines the sampling interval for an interface that is running J-Flow. Even though each flow is sampled, the flow sample is not necessarily cached because of system constraints. The **no** version returns the sampling interval to the default value.



NOTE: For interfaces on the ES2 10G LM with either the ES2-S1 GE-8 IOA or the ES2-S2 10GE PR IOA on E120 routers and E320 routers, J-Flow adjusts the maximum sampling interval to 8,388,608 (decimal equivalent of 0x800000) and changes the sampling interval to the closest integer that is a power of two and that is less than or equal to the configured value.

Syntax ip flow-sampling-mode packet-interval *intervalValue*
 no ip flow-sampling-mode packet-interval

- *intervalValue*—Sampling interval, in the range 1–4000000000 packets; default value is 4000000000

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip flow statistics

Description Enables J-Flow statistics. The **no** version disables J-Flow statistics.

Syntax [no] ip flow statistics

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip ftp source-address

Description Specifies an operational interface by IP address as the source interface in FTP packets sent via the router's FTP client. The **no** version restores the source address in the FTP packets to that on which the FTP connection is made.

Syntax ip ftp source-address *sourceAddress*
 no ip ftp source-address [*sourceAddress*]

- *sourceAddress*—Source IP address

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip ftp source-interface

Description Identifies an interface by type and location as the source interface in FTP packets sent via the router's FTP client. The **no** version restores the source address in the FTP packets to that on which the FTP connection is made.

Syntax ip ftp source-interface *interfaceType interfaceSpecifier*
no ip ftp source-interface [*interfaceType interfaceSpecifier*]

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

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip-hint

Description When enabled, the E-series router preallocates an IP address for the remote (B-RAS) user before calling authentication. The address is then passed as a hint in the authentication request to the RADIUS server. The **no** version disables the feature.

Syntax ip-hint { enable | disable }
no ip-hint

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

Mode Domain Map Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip http

Description Creates the HTTP local server. The **no** version deletes the HTTP local server.

Syntax [no] ip http

Mode Global Configuration

Release Information Command introduced in JUNOS Release 7.2.0.

ip http access-class

Description	Specifies the standard IP access list that identifies the subscribers who are authorized to connect to the HTTP local server. The no version removes the association between the access list and the HTTP local server.
Syntax	<pre>ip http access-class <i>listName</i> no ip http access-class</pre> <ul style="list-style-type: none"> ■ <i>listName</i>—Name of the access list
Mode	Global Configuration
Release Information	Command introduced in JUNOS Release 7.2.0.

ip http max-connection-time

Description	Specifies the maximum time that the HTTP local server maintains an inactive connection. The no version restores the default time.
Syntax	<pre>ip http max-connection-time <i>seconds</i> no ip http max-connection-time</pre> <ul style="list-style-type: none"> ■ <i>seconds</i>—Either 0 (unlimited) or the number of seconds in the range 3–7200; default value is 30 seconds
Mode	Global Configuration
Release Information	Command introduced in JUNOS Release 7.2.0.

ip http port

Description	Specifies the port on which the HTTP local server receives connection attempts. The no version restores the default port number.
Syntax	<pre>ip http port <i>portNumber</i> no ip http port</pre> <ul style="list-style-type: none"> ■ <i>portNumber</i>—Number of the port, in the range 0–65535; the default is port 80
Mode	Global Configuration
Release Information	Command introduced in JUNOS Release 7.2.0.

ip http redirectUrl

Description	Specifies the URL to which a subscriber's initial Web browser session is redirected, enabling initial provisioning and service selection for the subscriber. The no version removes the redirection action.
Syntax	<pre>ip http redirectUrl url no ip http redirectUrl</pre> <ul style="list-style-type: none">■ <i>url</i>—Name of the URL; 64 characters maximum
Mode	Interface Configuration, Profile Configuration, Subinterface Configuration
Release Information	Command introduced in JUNOS Release 7.2.0.

ip http same-host-limit

Description	Specifies the maximum number of connections that can exist between one IP address and the HTTP local server. The no version restores the default number of allowed connections.
Syntax	<pre>ip http same-host-limit maxConnections no ip http same-host-limit</pre> <ul style="list-style-type: none">■ <i>maxConnections</i>—Maximum number of connections allowed, in the range 0–1000; the default is 3
Mode	Global Configuration
Release Information	Command introduced in JUNOS Release 7.2.0.

ip http server

Description	Enables the HTTP local server. The no version disables the HTTP local server.
Syntax	<pre>[no] ip http server</pre> <ul style="list-style-type: none">■ <i>server</i>—Enables the HTTP local server
Mode	Global Configuration
Release Information	Command introduced in JUNOS Release 7.2.0.

ip icmp update-source

Description Specifies a unique source address or interface for any ICMP messages that the E-series router generates. The **no** version removes the unique source specification.

Syntax `ip icmp update-source [vrf vrfName] { interfaceType interfaceSpecifier | ipAddress }`
`no ip icmp update-source [vrf vrfName] [interfaceType interfaceSpecifier | ipAddress]`

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *ipAddress*—IP address of an E-series interface over which you want to send ICMP messages

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip igmp

Description Enables IGMP on an interface, and sets the IGMP version to IGMPv2. The **no** version disables IGMP on an interface.

Syntax `[no] ip igmp`

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip igmp access-group

Description Restricts hosts on this subnet to joining multicast groups on the specified IP access list. The **no** version removes the association with the specified access list and allows hosts on the subnet to join any multicast group.

Syntax `ip igmp access-group accessListName`
`no ip igmp access-group`

- *accessListName*—Name of the access list; a string of up to 32 characters

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip igmp access-source-group

Description	Restricts hosts on this subnet to membership in those source-groups (also known as “channels”) permitted by the specified IP access list. The no version removes any access list restriction.
Syntax	<pre>ip igmp access-source-group <i>accessListName</i> no ip igmp access-source-group</pre> <ul style="list-style-type: none">■ <i>accessListName</i>—Name of the access list; a string of up to 32 characters
Mode	Interface Configuration, Profile Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip igmp apply-oif-map

Description	Applies the specified outgoing interface (OIF) map to the current interface. The no version removes the outgoing interface map association from the interface.
Syntax	<pre>ip igmp apply-oif-map <i>mapName</i> no ip igmp apply-oif-map</pre> <ul style="list-style-type: none">■ <i>mapName</i>—Name of the OIF map
Mode	Interface Configuration, Profile Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip igmp explicit-tracking

Description	Enables explicit host tracking for IGMP interfaces. The no version disables explicit host tracking on the interface or with the disable-if-igmp-v2-detected keyword reverts to the default explicit host tracking.
Syntax	<pre>[no] ip igmp explicit-tracking [disable-if-igmp-v2-detected]</pre> <ul style="list-style-type: none">■ disable-if-igmp-v2-detected—Disables explicit host tracking if IGMP V2 hosts detected on IGMP V3 interfaces
Mode	Interface Configuration, Profile Configuration
Release Information	Command introduced in JUNOS Release 8.2.0.

ip igmp group limit

Description Limits the number of IGMP groups that an interface can accept. The **no** version restores the default situation, in which there is no limit to the number of IGMP groups that the interface accepts.

Syntax ip igmp group limit *groupLimit*
 no ip igmp group limit

- *groupLimit*—Maximum number of IGMP groups that an interface can accept in the range 0–64,000

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip igmp immediate-leave

Description Removes an interface immediately when the router receives an leave group membership message from the host associated with this interface. The **no** version restores the default situation, in which the router issues query messages to multicast groups and removes an interface if the associated host does not return a group membership report within a certain length of time.



CAUTION: Issue this command only on IGMPv2 interfaces to which one IGMP client is connected. Do not issue this command to interfaces to which more than one IGMP client is connected.

Syntax [no] ip igmp immediate-leave

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip igmp last-member-query-interval

Description Specifies in tenths of a second the maximum time the router waits for a response after sending a last member query. The router sends a last member query when it receives an IGMPv2 leave message or an IGMPv3 state change report. The **no** version restores the default value, 10 tenths of a second (1 second).

Syntax ip igmp last-member-query-interval *tenthsOfaSecond*
 no ip igmp last-member-query-interval

- *tenthsOfaSecond*—Time interval between receipt of an IGMP leave message and sending out of a query in the range 1–254 tenths of a second. Using a lower value allows members to leave groups more quickly.

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip igmp oif-map

- Description** Creates an outgoing interface (OIF) map. The **no** version removes an outgoing interface map attribute or the entire outgoing interface map.
- Syntax** [no] ip igmp oif-map *mapName* { *interfaceType interfaceSpecifier* | self }
[*groupPrefix* [*sourcePrefix*]]
- *mapName*—Name of the OIF map
 - *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
 - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
 - self—Specifies that the multicast outgoing interface is the same as IGMP join interface
 - *groupPrefix*—Group prefix in the form *ipAddress/maskLength*
 - *sourcePrefix*—Source prefix in the form *ipAddress/maskLength*
- Mode** Global Configuration
- Release Information** Command introduced before JUNOS Release 7.1.0.

ip igmp promiscuous

- Description** Enables the specified interface to accept IGMP reports from hosts on any subnet. The **no** version specifies that an IGMP interface should use the Router Configuration mode setting (see the **igmp promiscuous** command) to determine from which subnets it can accept IGMP reports.
- Syntax** ip igmp promiscuous { on | off }
no ip igmp promiscuous
- on—Enables the interface to accept IGMP reports from hosts on any subnet
 - off—Allows the interface to accept IGMP reports only from hosts on subnets associated with this interface
- Mode** Interface Configuration, Profile Configuration
- Release Information** Command introduced before JUNOS Release 7.1.0.

ip igmp-proxy

Description Enables IGMP proxy on an interface and specifies the version. Version 2 is enabled by default. The **no** version disables IGMP proxy for an interface.

Syntax [no] ip igmp-proxy [version { 2 | 3 }]

- 2—Specifies IGMP proxy version 2
- 3—Specifies IGMP proxy version 3

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip igmp-proxy unsolicited-report-interval

Description Specifies how often the upstream interface should transmit unsolicited reports. This command has no effect on interfaces other than the upstream value. The **no** version transmits unsolicited reports using the default value, 400 tenths of a second.



NOTE: Issue this command only on the upstream interface. Otherwise, this command will have no effect.

Syntax ip igmp-proxy unsolicited-report-interval *tenths-of-a-second*
 no ip igmp-proxy unsolicited-report-interval

- *tenths-of-a-seconds*—Time interval at which the interface transmits unsolicited reports

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip igmp-proxy V1-router-present-time

Description Specifies how long the router assumes that there is an IGMPv1 querier router on the subnet after the router receives an IGMP V1 query on this interface. The **no** version restores the default value, 10 seconds.

Syntax ip igmp-proxy V1-router-present-time *seconds*
 no ip igmp-proxy V1-router-present-time

- *seconds*—Time for which the router assumes that there is an IGMPv1 querier router on the subnet after the router receives an IGMP V1 query on this interface

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip igmp querier

Description Specifies that the interface will act as a querier when you configure IGMPv1 on an interface; this is the default behavior. The **no** version specifies that this interface will not issue query packets.



NOTE: This command is valid only for interfaces configured with IGMPv1.

Syntax [no] ip igmp querier

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip igmp querier-timeout

Description Sets the time that the interface waits before declaring itself as the querier. The **no** version restores the default value, twice the query interval.

Syntax ip igmp querier-timeout *seconds*

no ip igmp querier-timeout

- *seconds*—Time interval between the last query from the previous router and the first query from this interface

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip igmp query-interval

Description Sets how often the router sends IGMP host-query packets from this interface. The **no** version restores the default value, 125 seconds.

Syntax ip igmp query-interval *seconds*

no ip igmp query-interval

- *seconds*—Polling interval in the range 0–65535 seconds

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip igmp query-max-response-time

Description Specifies the period in tenths of a second during which the host is expected to respond to an IGMP query. IGMP version 2 includes this value in IGMP query messages sent out on the interface. You cannot set this value on interfaces running IGMP version 1. The **no** version restores the default value, 10 tenths of a second (1 second).

Syntax ip igmp query-max-response-time *tenthsOfaSecond*
no ip igmp query-max-response-time

- *tenthsOfaSecond*—Time interval between receipt of an IGMP query and the response; in the range 1–254 tenths of a second.

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip igmp robustness

Description Specifies the number of times that the router sends IGMP group-specific queries before declaring a group to no longer have any members on an interface. The **no** version restores the default value, 3.

Syntax ip igmp robustness *numberOfMessages*
no ip igmp robustness

- *numberOfMessages*—Number of times that the router sends IGMP group-specific queries in the range 1–4

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip igmp ssm-map enable

Description Enables SSM mapping on the router. SSM mapping statically assigns sources to IGMPv1 and IGMPv2 groups. You must use SSM mapping for IGMPv1 and IGMPv2 hosts to interoperate with PIM SSM. SSM mapping allows the router to use a statically configured list to translate (*,G) memberships to (S,G) memberships. The **no** version disables the SSM map.

Syntax [no] ip igmp ssm-map enable

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOS Release 7.1.0.

ip igmp ssm-map static

Description Specifies an access list and source address for use in SSM mapping. SSM mapping statically assigns sources to IGMPv1 and IGMPv2 groups. You must use SSM mapping for IGMPv1 and IGMPv2 hosts to interoperate with PIM SSM. SSM mapping allows the router to use a statically configured list to translate (*,G) memberships to (S,G) memberships. The **no** version removes the SSM map association.

Syntax [no] ip igmp ssm-map static *accessListName* *sourceAddress*

- *accessListName*—Name of the access control list
- *sourceAddress*—Address of the source

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOS Release 7.1.0.

ip igmp static-exclude

Description Specifies that an interface not handle multicast traffic for one or more (S,G) combinations. The **no** version removes the (S,G) exclusion from the interface.

Syntax [no] ip igmp static-exclude *sourceAddress* *groupAddress*

- *sourceAddress*—Address of the source
- *groupAddress*—Address of the group

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip igmp static-group

Description Assigns an interface to handle all multicast traffic for a group. The interface sets no timers for this group. The **no** version removes the group from the interface.

Syntax [no] ip igmp static-group *groupAddress*

- *groupAddress*—Address of the group

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip igmp static-include

Description	Assigns an interface to handle multicast traffic for one or more (S,G) combinations. The no version removes the (S,G) association from the interface.
Syntax	[no] ip igmp static-include <i>sourceAddress groupAddress</i> <ul style="list-style-type: none"> ■ <i>sourceAddress</i>—Address of the source ■ <i>groupAddress</i>—Address of the group
Mode	Interface Configuration, Profile Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip igmp version

Description	Sets the IGMP version for the interface. The no version restores the default value, IGMPv2.
Syntax	ip igmp version { 3 2 1 passive } no ip igmp version <ul style="list-style-type: none"> ■ 3—Specifies IGMP version 3 ■ 2—Specifies IGMP version 2 ■ 1—Specifies IGMP version 1 ■ passive—Configures a mapped OIF as a passive interface with only multicast-data-forwarding capability
Mode	Interface Configuration, Profile Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip ignore-df-bit

Description	Specifies that the router ignores the don't-fragment bit if present in the IP header of packets crossing the configured interface; the router then fragments packets even if the bit is present. The no version restores the default behavior, which is to consider the DF bit before fragmenting.
Syntax	[no] ip ignore-df-bit
Mode	Interface Configuration, Profile Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip inactivity-timer

Description Configures an inactivity timer. Dynamically created subscriber interfaces that are inactive for a period exceeding the specified timer value are deleted. The **no** version disables the timer.

Syntax [no] ip inactivity-timer *inactiveTime*

- *inactiveTime*—Length of time in the range 0–63335 minutes; a value of 0 specifies that dynamically created subscriber interfaces are not deleted

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip initial-sequence-preference

Description Configures the warm restart replay preference for an IP interface after a high availability switchover. The **no** version restores the default value.

Syntax ip initial-sequence-preference *preference*
no ip initial-sequence-preference

- *preference*—Preference value, 0 or 1; 1 indicates highest preference; default value is 0

Mode Subinterface Configuration

Release Information Command introduced in JUNOS Release 8.1.0.

ip inspect alert-off

Description Disables the inspect alert control. The **no** version returns the alert control to its default value, enabled.

Syntax [no] ip inspect alert-off

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip inspect audit-trail

Description Enables the inspect audit trail control. The **no** version disables the audit trail.

Syntax [no] ip inspect audit-trail

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip inspect dns-timeout

Description Defines the DNS timeout value for DNS flows. The **no** version restores the default value, 5 seconds.

Syntax ip inspect dns-timeout *timerValue*
 no ip inspect dns-timeout

- *timerValue*—Number of seconds in the range 1–65535; default value is 5

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip inspect icmp idle-time

Description Defines the idle-time value for ICMP flows. The **no** version restores the default value, 10 seconds.

Syntax ip inspect icmp idle-time *timerValue*
 no ip inspect icmp idle-time

- *timerValue*—Number of seconds in the range 1–65535; default value is 10

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip inspect max-incomplete

Description Defines the number of half-open (incomplete) sessions that will cause the router to start deleting half-complete sessions (the high value) and stop deleting half-complete sessions (the low value). The **no** version restores the default value.

Syntax ip inspect max-incomplete { high | low } *limitValue*
 no ip inspect max-incomplete { high | low }

- *limitValue*—Maximum number of incomplete connections in the following ranges and defaults:
 - high—Range is 1–65535; default value is 500
 - low—Range is 1–65535; default value is 400

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip inspect name

Description Creates and defines an inspection list. The **no** version deletes the inspection list.

Syntax ip inspect name *inspectName*
{ dns | ftp | http | https | icmp | pop-2 | pop-3 | rtsp | smtp | ssh | tcp | telnet | udp }
[alert { on | off }] [audit-trail { on | off }] [timeout *timeoutValue*]

no ip inspect name *inspectName*
[dns | ftp | http | https | icmp | pop-2 | pop-3 | rtsp | smtp | ssh | tcp | telnet | udp]
[alert [on | off]] [audit-trail [on | off]] [timeout [*timeoutValue*]]

- *inspectName*—Name of the inspection list
- dns—Configures the Domain Name Server application in the inspection list
- ftp—Configures File Transfer Protocol in the inspection list
- http—Configures Hypertext Transfer Protocol in the inspection list
- https—Configures Hypertext Transfer Protocol-Secure in the inspection list
- icmp—Configures Internet Control Message Protocol in the inspection list
- pop-2—Configures Post Office Protocol-2 in the inspection list
- pop-3—Configures Post Office Protocol-3 in the inspection list
- rtsp—Configures Real-Time Streaming Protocol and realAudio in the inspection list
- smtp—Configures Simple Mail Transfer Protocol in the inspection list
- ssh—Configures the Secure Shell application in the inspection list
- tcp—Configures Transfer Control Protocol in the inspection list
- telnet—Configures the Telnet application in the inspection list
- udp—Configures User Datagram Protocol in the inspection list
- alert—Overrides the alert log setting on the virtual router
- audit-trail—Overrides the audit trail log setting on the virtual router
- *timeoutValue*—Specifies a timeout value that overrides the idle timeout for the specified application; range is 5–43200; default value is 3600

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip inspect one-minute

Description Defines the connection establishment rate at which the router starts deleting half-complete sessions (the high value) and stops deleting half-complete sessions (the low value). The **no** version restores the default value.

Syntax `ip inspect one-minute { high | low } limitValue`
`no ip inspect one-minute { high | low }`

- *limitValue*—Maximum number of incomplete connections in the following ranges and defaults:
 - high—Range is 1–65535; default value is 500
 - low—Range is 1–65535; default value is 400

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip inspect tcp

Description Defines the synwait timer, finwait timer, or idle-time value for TCP flows. The **no** version restores the default value.

Syntax `ip inspect tcp { finwait-time | idle-time | synwait-time } timerValue`
`no ip inspect tcp { finwait-time | idle-time | synwait-time }`

- *timerValue*—Number of seconds in the following ranges and defaults for each timer:
 - finwait-time—Range is 1–65535; default value is 5
 - idle-time—Range is 1–65535; default value is 3000
 - synwait-time—Range is 1–65535; default value is 30

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip inspect tcp max-incomplete host

Description Defines the maximum number of half-complete TCP sessions that the router allows to the same destination before it begins removing sessions. This command also specifies an amount of time that the router disallows connection to affected hosts after removing sessions to those hosts. The **no** version restores the default value.

Syntax ip inspect tcp max-incomplete host *number* [block-time *timerValue*]
no ip inspect max-incomplete host

- *number*—Number of half-complete TCP sessions that the router allows to the same destination, in the range 1–5000; default value is 250 sessions
- *timerValue*—Amount of time, in the range 0–36000 minutes, that the router disallows connection to affected hosts after removing sessions to those hosts; default value is 0 minutes

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip inspect udp idle-time

Description Defines the idle-time value for UDP flows. The **no** version restores the default value, 30 seconds.

Syntax ip inspect udp idle-time *timerValue*
no ip inspect udp idle-time

- *timerValue*—Number of seconds in the range 1–65535; default value is 30

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip inspection

Description Associates an inspection list with the inbound or outbound side of the IP interface. The router applies the rules of the associated inspection list to all of the packets it receives on this interface. The **no** version removes the inspection list association with this interface.

Syntax [no] ip inspection *inspectName* { in | out }

- *inspectName*—Text string in the range 1–32 characters that specifies the name of the inspection list

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip interface

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

ip irdp

Description Enables ICMP Router Discovery Protocol processing on an interface. The **no** version disables IRDP routing.

Syntax [no] ip irdp

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip local alias

Description Specifies an alias for a local address pool. The **no** version deletes the alias name.

Syntax ip local alias *aliasName* pool-name *poolName*

[no] ip local alias *aliasName*

- *aliasName*—Text string in the range 1–16 characters that defines an alias name for the local address pool
- *poolName*—Text string in the range 1–16 characters that is the name of the local address pool

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip local pool

Description Specifies the pool name, the starting address, the ending address, group name, the utilization threshold, and the SNMP trap flag. The **no** version deletes a local pool.

Syntax [no] ip local pool *name* [*startIpAddress* [*endIpAddress*]]
[warning *highUtilization* *abatedUtilization*] [snmpTrap]

- *name*—Text string in the range 1–16 characters that defines the name of the local address *pool*
- *startIpAddress*—Starting IP address in the local address pool
- *endIpAddress*—Ending IP address in the local address pool
- warning—Specifies one of the following utilization warnings:
 - *highUtilization*—High utilization value; a number in the range 1–100; default value is 85
 - *abatedUtilization*—Abated utilization value; a number in the range 1–100; default value is 75
- snmpTrap—Enables SNMP pool utilization traps

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip local pool snmpTrap

Description Enables SNMP pool utilization traps. The **no** version disables SNMP pool utilization traps.

Syntax [no] ip local pool *name* snmpTrap

- *name*—Text string in the range 1–16 characters that defines the name of the local address *pool*

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip local pool warning

Description Identifies the warning threshold values. The **no** version resets the thresholds to their default values.

Syntax ip local pool *name* warning *highUtilization* *abatedUtilization* [*snmpTrap*]
 no ip local pool *name* warning [*highUtilization* *abatedUtilization*]

- *name*—Text string in the range 1–16 characters that defines the name of the local address *pool*
- *highUtilization*—High utilization value; a number in the range 1–100; default value is 85
- *abatedUtilization*—Abated utilization value; a number in the range 1–100; default value is 75
- *snmpTrap*—Enables snmp pool utilization traps

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip local shared-pool

Description Configures a shared local address pool that shares addresses from the specified DHCP local server address pool in the same virtual router. The **no** version deletes the shared local address pool.

Syntax ip local shared-pool *localPoolName* *dhcpPoolName*
 no ip local shared-pool *localPoolName*

- *localPoolName*—Text string in the range 1–16 characters that defines the name of the shared local address pool that obtains addresses from a DHCP local server address pool.
- *dhcpPoolName*—Text string in the range 1–64 characters that defines the name of the DHCP local address pool that provides addresses to the shared local address pool.

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip mac-validate

Description Enables MAC address validation on a per interface basis. When MAC address validation is enabled, the router checks the entry in the MAC validation table that corresponds to the IP source address of an incoming packet. The MAC source address of the packet must match the MAC source address of the table entry for the router to forward the packet. The **no** version disables the feature.

Syntax ip mac-validate [strict | loose]
no ip mac-validate

- strict—Prevents transmission of IP packets that do not reside in the validation table
- loose—Allows IP packets to pass through even though the packets do not have entries in the validation table; only packets that have matching IP-MAC pair entries in the table are validated

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip mask-reply

Description Enables ICMP netmask reply. The **no** version disables the feature.

Syntax [no] ip mask-reply

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip match-policy-list

Description Creates an IP policy list and launches the policy list configuration mode. The **no** version deletes the policy list.

Syntax [no] ip match-policy-list *policyList* { permit | deny }

- *policyList*—Name of the policy list
- permit—Defines the policy list as a permit
- deny—Defines the policy list as a deny

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip mirror

Description Configures the specified interface to mirror all IP ingress and egress traffic, and directs the mirrored traffic to an analyzer interface. The **no** version disables mirroring on the interface.



NOTE: This command is deprecated and might be removed completely in a future release. The function provided by this command has been replaced by the updated packet mirroring feature and the **ip policy** command used with the **secure-input** and **secure-output** keywords.

Syntax `ip mirror mirrorInterfaceType mirrorInterfaceSpecifier`
`[analyzerInterfaceType analyzerInterfaceSpecifier [next-hop nextHop]]`
`no ip mirror mirrorInterfaceType mirrorInterfaceSpecifier`

- *mirrorInterfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *mirrorInterfaceSpecifier*—Particular interface that performs the interface mirroring function; see *Interface Types and Specifiers* in *About This Guide*
- *analyzerInterfaceType*—Interface type
- *analyzerInterfaceSpecifier*—Particular interface used as the analyzer interface; if omitted, the virtual router's default analyzer interface is used
- *nextHop*—Next-hop IP address to the remote analyzer host; required if the analyzer interface is a shared medium, such as Ethernet

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

Related Topics

- Configuring CLI-Based Mirroring

ip mobile home-agent

Description Configures the Mobile IP home agent on a virtual router. Issuing this command does not affect existing parameters such as lifetime, replay value, or care-of-access ACL for any mobile node's existing binding. The new parameters take effect only upon each re-registration or new registration. For example, configuring a shorter lifetime does not cause an existing binding to be removed prematurely, but the new lifetime value is used only upon re-registration by a mobile node so that both the mobile node and the home agent are informed of the newly negotiated value. The **no** version disables the home agent service on the virtual router.



NOTE: The values for lifetime, replay, and care-of access configured per mobile host by using the **ip mobile host** command override the values configured by using the **ip mobile home-agent** command.

Syntax `ip mobile home-agent [care-of-access acl] [lifetime lifetimeSeconds]
[replay replaySeconds] [reverse-tunnel-off]`

`no ip mobile home-agent`

- *acl*—Name of the access control list applied to the care-of-access, which restricts access for foreign agents or networks. You can override this care-of-access ACL with other ACLs for specific host mobile nodes. By default, the router does not apply a care-of-access ACL
- *lifetimeSeconds*—Maximum number of seconds, in the range 5–65535, during which registration requests are established; default value is 36,000 seconds. The maximum lifetime configured for specific mobile nodes can override this lifetime value
- *replaySeconds*—Number of seconds, in the range 1–255, by which a registration request can exceed the home agent configured time value; default value is 7 seconds
- *reverse-tunnel-off*—Disables reverse tunneling support by the home agent, which denies T bit registration requests. By default, reverse tunneling is enabled on the router. When you modify support for reverse tunnels, the modification takes effect only for subsequently accepted registration requests

Mode Global Configuration

Release Information Command introduced in JUNOS Release 9.0.0.

ip mobile host

Description Configures the mobile node on a virtual router with an optional host network access identifier (NAI) address or the home address (IP address of the home agent). You can specify either the **nai** keyword or a non-zero home address (IP address of the mobile node). If the AAA server does not provide all configuration information, a local lookup retrieves the configuration information by either matching the NAI registration request or the home address registration request. The **no** version deletes the configuration of the mobile node on the virtual router.

Syntax `ip mobile host { nai { user@realm | @realm | @ } | ipAddress } [aaa] [care-of-access acl] [lifetime lifetimeSeconds]`

`no ip mobile host { nai { user@realm | @realm | @ } | ipAddress }`

- *user@realm*—Name of the user for the mobile node specification when the **nai** keyword is specified, in the format *user@realm*, where *realm* is the domain name
- *@realm*—Name of the user for the mobile node specification when the **nai** keyword is specified, in the format *@realm*, where *realm* is the domain name
- *@*—Name of the user for the mobile node specification when the **nai** keyword is specified, in the format *@*
- *ipAddress*—IP address of the home agent
- *aaa*—Causes the router to use the AAA server to validate registration requests and to obtain configuration and security association information
- *acl*—Name of the access control list applied to the care-of-access, which restricts access for foreign agents or networks. You can override this care-of-access ACL with other ACLs for specific host mobile nodes. By default, the router does not apply a care-of-access ACL
- *lifetimeSeconds*—Maximum number of seconds during which the registration requests are established; default value is 36,000 seconds. The maximum lifetime configured for specific mobile nodes can override this lifetime value

Mode Global Configuration

Release Information Command introduced in JUNOS Release 9.0.0.

ip mobile profile

Description Configures or associates a preconfigured interface profile with the home agent in a virtual router. You must configure a mobile profile for every virtual router in which the home agent exists. The profile parameters determine the interface characteristics for Mobile IP signaling. The **no** version removes the profile configuration from the virtual router.

Syntax [no] ip mobile profile *profileName*

- *profileName*—Name of the profile associated with the home agent for Mobile IP signaling in a virtual router

Mode Global Configuration

Release Information Command introduced in JUNOS Release 9.0.0.

ip mobile secure foreign-agent

Description Configures the security associations for a foreign agent by specifying a security parameter index (SPI) value and an authentication key. You can specify the interval within which a registration request can exceed the home agent configured time value by specifying the **replay timestamp within** keyword. The **no** version deletes the security associations for the specified foreign agent on the virtual router.

Syntax ip mobile secure foreign-agent *ipAddress* spi *spi* key { hex *hexKeyVal* | ascii *asciiKeyVal* }
[replay timestamp within *seconds*] [algorithm { hmac-md5 | keyed-md5 }]
no ip mobile secure foreign-agent *ipAddress* spi *spi* key { hex *hexKeyVal* |
ascii *asciiKeyVal* }

- *ipAddress*—IP address of the foreign agent
- *spi*—Security parameter index (SPI) value, a specific 4-octet hexadecimal number, in the range 0x100–0xFFFFFFFF, that authenticates inbound requests and permits authentication for outbound registration requests
- *hexKeyVal*—128-bit hexadecimal number, in the range 0x0–0xFFFFFFFFE, that specifies the authentication key for a specific security association
- *asciiKeyVal*—128-bit alphanumeric value, up to a maximum of 16 characters, that specifies the authentication key for a specific security association
- *seconds*—Number of seconds, in the range 1–255, by which a registration request can exceed the home agent configured time value; default value is 7 seconds
- hmac-md5—Specifies the authentication algorithm for Mobile IP messages, default value is hmac-md5
- keyed-md5—Specifies the authentication algorithm for Mobile IP messages

Mode Global Configuration

Release Information Command introduced in JUNOS Release 9.0.0.

ip mobile secure host

Description Configures the security associations for a mobile node. You can configure the security associations for a mobile node only after configuring a corresponding host configuration for the mobile node, and only if you have not configured the AAA service on the virtual router. You can specify the interval within which a registration request can exceed the home agent configured time value by specifying the **replay timestamp within** keyword. The **no** version deletes the security associations for the specified host on the virtual router.



NOTE: If you delete a mobile node host by using the **no ip mobile host** command, all security associations that you configured for this host are deleted.

Syntax

```
ip mobile secure host { nai { user@realm | @realm | @ } | ipAddress } spi spi
key { hex hexKeyVal | ascii asciiKeyVal } [ replay timestamp within seconds ]
[ algorithm { hmac-md5 | keyed-md5 } ]

no ip mobile secure host { nai { user@realm | @realm } | ipAddress } spi spi
key { hex hexKeyVal | ascii asciiKeyVal }
```

- *user@realm*—Name of the user for the mobile node specification when the **nai** keyword is specified, in the format *user@realm*, where *realm* is the domain name
- *@realm*—Name of the user for the mobile node specification when the **nai** keyword is specified, in the format *@realm*, where *realm* is the domain name
- *@*—Name of the user for the mobile node specification when the **nai** keyword is specified, in the format *@*
- *ipAddress*—IP address of the foreign agent
- *spi*—Security parameter index (SPI) value, a specific 4-octet hexadecimal number, in the range 0x100–0xFFFFFFFF, that authenticates inbound requests and permits authentication for outbound registration requests
- *hexKeyVal*—128-bit hexadecimal number, in the range 0x0–0xFFFFFFFFFE, that specifies the authentication key for a specific security association
- *asciiKeyVal*—128-bit alphanumeric value, up to a maximum of 16 characters, that specifies the authentication key for a specific security association
- *seconds*—Number of seconds, in the range 1–255, by which a registration request can exceed the home agent configured time value; default value is 7 seconds
- *hmac-md5*—Specifies the authentication algorithm for Mobile IP messages, default value is *hmac-md5*
- *keyed-md5*—Specifies the authentication algorithm for Mobile IP messages

Mode Global Configuration

Release Information Command introduced in JUNOS Release 9.0.0.

ip mpls forwarding-mode label-switched

Description Generates a label for each different FEC that a BGP route points to in a BGP/MPLS VPN. The **no** version restores the default, generating a single label for all BGP routes sent from a given VRF.



NOTE: For some types of routes, the router always generates a per-VRF label, regardless of the status of this command. See *JUNOS BGP and MPLS Configuration Guide, Chapter 3, Configuring BGP-MPLS Applications*, for details.

Syntax [no] ip mpls forwarding-mode label-switched

Mode VRF Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip mtu

Description Sets the maximum transmission unit size of IP packets sent on an interface. The **no** version restores the default value.

Syntax [no] ip mtu [*mtuSize*]

- *mtuSize*—Maximum number of packet transmissions permitted on an interface; in the range 160–10240; default value is 0, which means that the router takes the value from a lower protocol layer

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip multicast admission-bandwidth-limit

Description Specifies multicast admission bandwidth (in kilobits per second) for a given interface. The **no** version removes the admission bandwidth limit.

Syntax [no] ip multicast admission-bandwidth-limit *limitValue*

- *limitValue*—Maximum admission bandwidth (in kilobits per second) permitted on an interface; default value is 0, which disables the limit

Mode Interface Configuration, Profile Configuration

Release Information Command introduced in JUNOS Release 7.1.0.

ip multicast ioa-packet-replication

Description Enables IPv4 hardware multicast packet replication on port 8 of a high-density Ethernet I/O module or IOA. The **no** version disables hardware multicast packet replication.

Syntax ip multicast ioa-packet-replication *interfaceType interfaceSpecifier*
no ip multicast ioa-packet-replication

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

Mode Interface Configuration

Release Information Command introduced in JUNOS Release 7.3.0.

ip multicast-routing

Description Enables IP multicast routing on the router. The **no** version disables IP multicast routing on the router.

Syntax [no] ip multicast-routing

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip multicast-routing bandwidth-map

Description Enables the QoS adjust function on the router. The **no** version disables the QoS adjust function on the router.

Syntax ip multicast-routing bandwidth-map *routeMapName*
no ip multicast-routing bandwidth-map

- *routeMapName*—Name of the route map you want to use for the bandwidth map

Mode Global Configuration

Release Information Command introduced in JUNOS Release 7.1.0.

ip multicast-routing disable-rpf-check

Description Disables RPF checks for the (S,G) pairs in the specified access list. The **no** version restores the default situation, in which the router performs RPF checks for all (S,G) pairs.

Syntax ip multicast-routing disable-rpf-check *ipAccessList*
no ip multicast-routing disable-rpf-check

- *ipAccessList*—Name of the IP access list that specifies the (S,G) pairs

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip multicast-routing permanent-mroute

Description Specifies that newly created mroutes that match the specified access list do not get timed out. The **no** version of this command prevents any new mroutes from becoming permanent. However, it does not remove any existing permanent mroutes. To remove existing permanent mroutes, use the **clear ip mroute** command.

Syntax ip multicast-routing permanent-mroute *accessListName*
no ip multicast-routing permanent-mroute

- *accessListName*—Name of the IP access list that contains the mroutes

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip multipath round-robin

Description Specifies round-robin as the mode for ECMP load sharing on an interface. The **no** version restores the default value, hashed.

Syntax [no] ip multipath round-robin

Mode Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip name-server

Description Specifies a DNS name server that the router can query for hostname-to-IP address resolution. The **no** version deletes the name server.

Syntax [no] ip name-server *serverIpAddress* [*serverIpAddress*]*

- *serverIpAddress*—IP or IPv6 address of a DNS name server
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip nat

Description Marks interfaces that participate in NAT translation as residing on the inside or the outside network. The **no** version unmarks the interface so that it does not participate in NAT translation.

Syntax [no] ip nat { inside | outside }

- inside—Specifies that the interface resides on the inside (private) portion of the network. The inside portion of the network uses nonroutable IP addresses.
- outside—Specifies that the interface resides on the outside (public) portion of the network. The outside portion of the network (for example, the Internet) uses routable legitimate addresses.

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip nat inside source list

Description Creates dynamic translation rules that are applied to a source address when routing a packet from the inside network to the outside network, and for translating the destination address when a packet returns from the outside network to the inside network. The **no** version removes the dynamic translation rule.



NOTE: This command does not remove any dynamic translations from the translation table.

Syntax ip nat inside source list *accessListName* pool *poolName* [overload]
no ip nat inside source list *accessListName*

- *accessListName*—Name of the access list that you want to use for this dynamic translation
- *poolName*—Name of the NAT IP address pool that contains addresses you want to use when translating matched access list addresses
- overload—Specifies that the translation process create extended translation table entries (IP address, protocol, and port values)

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip nat inside source static

Description Creates static translations for a source address when routing a packet from the inside network to the outside network, and “untranslates” the destination address when a packet returns from the outside network to the inside network. The **no** version removes the static translation and purges the associated translations from the translation table.

Syntax [no] ip nat inside source static *localIpAddress* *globalIpAddress*
[no] ip nat inside source static { tcp | udp } *localIpAddress* *localPort* *globalIpAddress* *globalPort*

- tcp—Indicates a TCP port
- udp—Indicates a UDP port
- *localIpAddress*—Inside local address
- *localPort*—Inside local TCP or UDP port
- *globalIpAddress*—Inside global address
- *globalPort* —Inside global TCP or UDP port

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip nat outside source list

Description Creates dynamic translation rules that are applied to a source address when routing a packet from the outside network to the inside network, and used for translating the destination address when a packet returns to the outside network from the inside network. The **no** version removes the dynamic translation rule.



NOTE: This command does not remove any dynamic translations from the translation table.

Syntax `ip nat outside source list accessListName pool poolName`
`no ip nat outside source list accessListName`

- *accessListName*—Name of the access list that you want to use for this dynamic translation
- *poolName*—Name of the NAT IP address pool that contains addresses you want to use when translating matched access list addresses

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip nat outside source static

Description Translates the source address when routing a packet from the outside network to the inside network, and “untranslates” the destination address when a packet travels from the inside network to the outside network. The **no** version removes the static translation and purges the associated translations from the translation table.

Syntax `[no] ip nat outside source static globalIpAddress localIpAddress`
`[no] ip nat outside source static { tcp | udp } globalIpAddress globalPort localIpAddress localPort`

- tcp—Indicates a TCP port
- udp—Indicates a UDP port
- *globalIpAddress*—Inside global address
- *globalPort*—Inside global TCP or UDP port
- *localIpAddress*—Inside local address
- *localPort*—Inside local TCP or UDP port

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip nat pool

Description Creates an address pool from which the NAT router obtains an address when performing a dynamic translation. You can create address pools with either a single range or multiple, nonoverlapping ranges. The **no** version removes the NAT pool.



NOTE: The router will not allow you to remove a pool that has allocations outstanding. Before removing this type of pool, you must remove the dynamic translation, clear any outstanding translations, and then remove the pool.



CAUTION: Specifying a range in “single line” mode from the CLI replaces all other ranges. You cannot specify a range in this mode if any existing ranges are in use. To add additional ranges, issue this command to access IP NAT Pool Configuration mode.

Syntax `ip nat pool name [startIpAddress endIpAddress]
{ netmask networkMask | prefix-length length }`
`no ip nat pool name`

- *name*—Name of the address pool; 32 alphanumeric characters maximum
- *startIpAddress*—First IP address (inclusive) in the NAT pool range you are creating; omitting this value in the command (along with *endIpAddress*) launches the IP NAT Pool Configuration mode, in which you can enter multiple, discontinuous ranges
- *endIpAddress*—Last IP address (inclusive) in the NAT pool range you are creating; omitting this value in the command (along with *startIpAddress*) accesses IP NAT Pool Configuration mode, in which you can enter multiple, discontinuous ranges
- *ipAddressMask*—Subnet mask for any NAT pool ranges you specify
- *length*—Length of the network prefix; the number of bits masking the base address that results in the address that you want to match

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip nat translation

Description Changes or disables translation timeouts, per virtual router, for existing and newly created translations in the translation table. All timeouts for this command support a range of 1–2147483 seconds (about 25 days). The **no** version enables the timer using its default value.



NOTE: GRE translations are used as optimizations to discard GRE traffic. You can use the **gre-timeout** keyword to control GRE aging timeout, even though we do not support NAT for GRE. The GRE aging timer has no effect on any simple translations GRE might use.

Syntax `ip nat translation { timeout | udp-timeout | dns-timeout | tcp-timeout | finrst-timeout | icmp-timeout | gre-timeout } seconds`
`no ip nat translation { timeout | udp-timeout | dns-timeout | tcp-timeout | finrst-timeout | icmp-timeout | gre-timeout }`

- **timeout**—Sets aging time for dynamic translations (except for overloaded translations); default value is 86400 seconds (24 hours)
- **udp-timeout**—Sets aging time for UDP protocol translations; default value is 300 seconds (5 minutes)
- **dns-timeout**—Sets aging time for DNS protocol translations (port 53 on TCP or UDP); default value is 60 seconds
- **tcp-timeout**—Sets aging time for TCP protocol translations; default value is 86400 seconds (24 hours)
- **finrst-timeout**—Sets aging time for TCP connections terminated with RST or FIN flags; default value is 60 seconds
- **icmp-timeout**—Sets aging time for ICMP protocol translations; default value is 300 seconds (5 minutes)
- **gre-timeout**—Sets aging time for GRE protocol translations; default value is 300 seconds (5 minutes)
- **seconds**—Number of seconds before the router removes an unused NAT table entry

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.
gre-timeout keyword added in JUNOS Release 7.3.0.

ip nat translation max-entries

Description Specifies the maximum number of translation entries per virtual router (that is, address bindings, not translation rules) that the translation table can contain in global configuration mode. The **no** version removes the configured limit.

Syntax ip nat translation max-entries *maximumEntryNumber*
no ip nat translation max-entries

- *maximumEntryNumber*—Maximum number of translation entries in the current virtual router; default value is no limit

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip nfs

Description Specifies the E-series interface that the current virtual router uses to exchange NFS communications with an NFS server. The **no** version prevents this interface from sending or receiving NFS communications for the current virtual router.

Syntax ip nfs { source-address *ipAddress* | source-interface *interfaceType interfaceSpecifier* }
no ip nfs { source-address | source-interface }

- *ipAddress*—IP address of an E-series interface that sends and receives NFS communications
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip nfs host

- Description** Configures a remote host as an NFS server for the current virtual router. The **no** version disassociates the NFS server from the virtual router.
- Syntax** `ip nfs host hostName [user userID [group groupID]]`
`no ip nfs host hostName`
- *hostName*—Name of the remote host
 - *userID*—User identity in the range 0–4294967295 that a user must enter to connect to the remote host; default value is 2001
 - *groupID*—Group identity in the range 0–4294967295 that the user must enter to connect to the remote host; default value is 100
- Mode** Global Configuration
- Release Information** Command introduced before JUNOS Release 7.1.0.

ip ospf authentication-key

- Description** Assigns a password used by neighboring routers that are using OSPF simple password authentication. The **no** version deletes the password.
- Syntax** `ip ospf authentication-key authKey`
`no ip ospf authentication-key`
- *authKey*—Password; string of up to 8 characters
- Mode** Interface Configuration, Subinterface Configuration
- Release Information** Command introduced before JUNOS Release 7.1.0.

ip ospf authentication message-digest

- Description** Specifies that the authentication mode for the interface is MD5. The **no** version sets authentication for the interface to none, but leaves any configured MD5 key intact.
- Syntax** `[no] ip ospf authentication message-digest`
- Mode** Interface Configuration, Subinterface Configuration
- Release Information** Command introduced before JUNOS Release 7.1.0.

ip ospf authentication-none

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

Syntax ip ospf authentication-none

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip ospf bfd-liveness-detection

Description Enables BFD (bidirectional forwarding detection) on an interface running OSPFv2 and defines BFD values to be negotiated between OSPFv2 neighbors for detection of IP data path failures. The **no** version disables BFD on the OSPFv2 interface.

Syntax ip ospf bfd-liveness-detection [minimum-interval *minInterval* |
[minimum-receive-interval *minRecInterval*]
[minimum-transmit-interval *minTransInterval*]] [multiplier *multValue*]
no ip ospf bfd-liveness-detection

- *minInterval*—Minimum proposed transmit interval and required receive interval for BFD control packets; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minRecInterval*—Minimum interval at which the local peer must receive BFD control packets sent by the remote peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minTransInterval*—Minimum proposed interval between BFD control packets sent by the local peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *multValue*—Detection multiplier value that the remote peer router multiplies by the local peer's negotiated transmit interval to determine the remote peer's BFD liveness detection interval; equal to the number of BFD packets that can be missed before the BFD session is declared down; number in the range 1–255; default value is 3

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced in JUNOS Release 7.1.0.

ip ospf cost

Description	Specifies a cost metric for an interface. Used in the calculation of the SPF routing table. The no version resets the path cost to the default.
Syntax	<pre>ip ospf cost <i>intfCost</i> no ip ospf cost</pre> <ul style="list-style-type: none"> ■ <i>intfCost</i>—Link-state metric cost; number in the range 0–65535; default value is 10
Mode	Interface Configuration, Subinterface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip ospf dead-interval

Description	Sets the time period during which the router's neighbors do not see hello packets before they declare the router to be down. The no version resets the dead interval to its default.
Syntax	<pre>ip ospf dead-interval <i>deadInterval</i> no ip ospf dead-interval</pre> <ul style="list-style-type: none"> ■ <i>deadInterval</i>—Number in the range 0–2147483647 seconds; default value is 40 seconds
Mode	Interface Configuration, Subinterface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip ospf hello-interval

Description	Specifies the interval between hello packets that the router sends on the interface. The no version resets the hello interval to its default.
Syntax	<pre>ip ospf hello-interval <i>helloInterval</i> no ip ospf hello-interval</pre> <ul style="list-style-type: none"> ■ <i>helloInterval</i>—Number in the range 1–65535 seconds; default value is 10 seconds
Mode	Interface Configuration, Subinterface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip ospf message-digest-key md5

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



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

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

NOTE: To display the password only in encrypted text, use the **service password-encryption** command.

Syntax ip ospf message-digest-key *keyID* md5 [0 | 8] *msgDigestKey*
no ip ospf message-digest-key *keyID*

- *keyID*—Key identifier in the range 1–255
- md5—Specifies use of the MD5 algorithm
- 0—Indicates the *msgDigestKey* is entered in unencrypted form (plaintext); this is the default option
- 8—Indicates the *msgDigestKey* is entered in encrypted form (ciphertext)
- *msgDigestKey*—OSPF password; string of up to 16 alphanumeric characters

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip ospf network

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

Syntax ip ospf network { broadcast | non-broadcast | point-to-point }
no ip ospf network

- broadcast—Sets the network type to broadcast
- non-broadcast—Sets the network type to NBMA
- point-to-point—Sets the network type to point-to-point

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip ospf priority

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

Syntax ip ospf priority *intfPriority*
no ip ospf priority

- *intfPriority*—Priority value, an 8-bit number in the range 1–255; default value is 1

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip ospf retransmit-interval

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

Syntax ip ospf retransmit-interval *retransInterval*
no ip ospf retransmit-interval

- *retransInterval*—Number in the range 0–3600 seconds; default value is 5 seconds

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip ospf shutdown

Description Disables OSPF on an interface. The **no** version enables OSPF on the interface.

Syntax [no] ip ospf shutdown

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip ospf transmit-delay

Description	Sets the estimated time it takes to transmit a link-state update packet on the interface. The no version restores the default value.
Syntax	<pre>ip ospf transmit-delay <i>transmDelay</i> no ip ospf transmit-delay</pre> <ul style="list-style-type: none">■ <i>transmDelay</i>—Link-state transmit delay, a number in the range 0–3600 seconds; default value is 1 second
Mode	Interface Configuration, Subinterface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip pim

Description	In Interface Configuration mode, enables PIM on an interface. In Profile Configuration mode, enables a PIM interface for a dynamic profile. The no version disables PIM on an interface.
Syntax	<pre>In Interface Configuration mode: [no] ip pim [dense-mode sparse-mode sparse-dense-mode] In Profile Configuration mode: [no] ip pim [sparse-mode sparse-dense-mode]</pre> <ul style="list-style-type: none">■ <i>dense-mode</i>—Enables PIM in dense mode■ <i>sparse-mode</i>—Enables PIM in sparse mode■ <i>sparse-dense-mode</i>—Enables PIM in sparse-dense mode
Mode	Interface Configuration, Profile Configuration
Release Information	Command introduced before JUNOS Release 7.1.0. Profile Configuration mode added in JUNOS Release 8.2.0.

ip pim bfd-liveness-detection

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

Syntax ip pim bfd-liveness-detection [minimum-interval *minInterval* |
[minimum-receive-interval *minRecInterval*]
[minimum-transmit-interval *minTransInterval*]] [multiplier *multValue*]

no ip pim bfd-liveness-detection

- *minInterval*—Minimum proposed transmit interval and required receive interval for BFD control packets; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minRecInterval*—Minimum interval at which the local router must receive BFD control packets sent by its neighbors; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minTransInterval*—Minimum proposed interval between BFD control packets sent by the local router; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *multValue*—Detection multiplier value that the remote neighbor multiplies by the local router's negotiated transmit interval to determine the remote neighbor's BFD liveness detection interval; equal to the number of BFD packets that can be missed before the BFD session is declared down; number in the range 1–255; default value is 3

Mode Interface Configuration

Release Information Command introduced in JUNOS Release 8.0.0.

ip pim bsr-candidate

Description Defines a router as a bootstrap router (BSR) candidate. The **no** version disables the router BSR candidacy.

Syntax ip pim bsr-candidate *interfaceType interfaceSpecifier*
[*hashMaskLen* [*priority priority*]] [*period bootstrapPeriod*]
no ip pim bsr-candidate

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*. The autoRP announcement messages will contain the IP address for this interface.
- *hashMaskLen*—Length (up to 32 bits) of the hash mask length field sent in BSMs that the router originates; default value is 30 bits
- *priority*—Value in the range 0–255 of the BSR-Priority field of BSMs that the router originates; default value is 0
- *bootstrapPeriod*—Interval in the range 1–65535 seconds at which the BSR sends bootstrap messages; default value is 60 seconds

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip pim data-mdt

Description Activates data MDTs and enters IP PIM Data MDT Configuration mode. The **no** version deactivates data MDTs.

Syntax [no] ip pim data-mdt

Mode Global Configuration

Release Information Command introduced in JUNOS Release 8.2.0.

ip pim dr-priority

Description Assigns a priority for the interface to be selected as the designated router. An interface with a higher priority value is preferred as a designated router over an interface with a lower priority value. The **no** version restores the default value of one.

Syntax ip pim dr-priority *priority*
no ip pim dr-priority

- *priority*—Value in the range 1–254; default value is 1

Mode Interface Configuration

Release Information Command introduced in JUNOS Release 9.0.0.

ip pim group-address-pool

Description Configures PIM group address pools from which data MDT group addresses are allocated.

Syntax ip pim group-address-pool *poolName* *groupAddressMinimum* *groupAddressMaximum*
no ip pim group-address-pool *poolName*

- *poolName*—Name of the group address pool
- *groupAddressMinimum*—Minimum value in the group address range
- *groupAddressMaximum*—Maximum value in the group address range

Mode Global Configuration

Release Information Command introduced in JUNOS Release 8.2.0.

ip pim join-filter

Description Specifies an extended access list that you want this PIM interface to use as a join filter. If an interface-level filter exists, it takes precedence over the global-level filter. The **no** version removes the filter association.

Syntax ip pim join-filter *accessListName*
no ip pim join-filter

- *accessListName*—Name of the access list that you want this interface to use as a PIM join filter; a string of up to 32 alphanumeric characters

Mode Global Configuration, Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.
Profile Configuration mode added in JUNOS Release 8.2.0.

ip pim query-interval

Description Specifies how often the router sends PIM router query messages from this interface. The **no** version specifies the default time interval, 30 seconds.

Syntax ip pim query-interval *queryTime*
no ip pim query-interval

- *queryTime*—Interval in the range 0–210 seconds at which the router sends PIM router query messages from this interface

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.
Profile Configuration mode added in JUNOS Release 8.2.0.

ip pim rp-address

Description Specifies a static PIM group-to-RP mapping. The **no** version clears the mapping from this interface.

Syntax [no] ip pim rp-address *ipAddress* [*ipAccessList*] [override]

- *ipAddress*—IP address of the router you want to designate as an RP router
- *ipAccessList*—Name of the IP access list that specifies which multicast groups use this RP
- **override**—Specifies that this static RP mapping has priority over group-to-RP mappings learned by auto-RP

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip pim rp-candidate

Description Defines a router as a rendezvous point (RP) router candidate. The **no** version stops the router from being an RP candidate.

Syntax `ip pim rp-candidate interfaceType interfaceSpecifier [group-list accessListName] [hold-time holdTime] [priority priority] [interval interval]`
`no ip pim rp-candidate interfaceType interfaceSpecifier`

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*. The autoRP announcement messages will contain the IP address for this interface.
- *accessListName*—Access list containing the set of group prefixes supported by this C-RP. If no group-list is specified, the default value is the entire multicast address range.
- *holdTime*—Amount of time in the range 1–65535 seconds that the BSR keeps an RP in its C-RP list if the BSR does not receive a C-RP advertisement message; default value is 150 seconds
- *priority*—Priority field value in the range 0–255 that the C-RP sends to the BSR in C-RP advertisement messages. In the RP election process, the RP with the lower priority value is preferred; default value is 192
- *interval*—Interval in the range 1–65535 seconds at which the C-RP sends advertisement messages to the BSR; default value is 60 seconds

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip pim send-rp-announce

Description Sends autoRP announcement messages from a router you configured as an RP. The **no** version clears the specified filters from this interface.

Syntax ip pim send-rp-announce *interfaceType interfaceSpecifier* scope *ttl*
[group-list *ipAccessList*] [interval *seconds*]

no ip pim send-rp-announce *interfaceType interfaceSpecifier* [scope *ttl*]
[group-list *ipAccessList*] [interval *seconds*]

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*. The autoRP announcement messages will contain the IP address for this interface.
- *ttl*—Time-to-live value; the number of hops for which the announcement is valid in the range 1–65535; default value is 64 hops
- *ipAccessList*—Name of the IP access list that specifies which multicast groups use this RP; default value is no access list
- *seconds*—Time interval in the range 1–65535 seconds at which the router sends the announcements; default value is 60 seconds

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip pim send-rp-discovery scope

Description Configures the router as an RP mapping agent, which records RP-to-group mappings and notifies PIM DRs about the mappings. The **no** version stops the router from acting as an RP mapping agent.

Syntax ip pim send-rp-discovery scope *ttl* [*interfaceType interfaceSpecifier*]

no ip pim send-rp-discovery

- *ttl*—Time-to-live value; number of hops for which the RP discovery message is valid. Specify a value that covers the PIM domain.
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*. If you specify an interface, the autoRP discovery messages will contain the IP address for this interface.

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip pim sparse-mode graceful-restart-duration

Description Sets duration time for IP PIM sparse-mode graceful restart. The **no** version resets the duration to the default.

Syntax ip pim sparse-mode graceful-restart-duration *seconds*
no ip pim sparse-mode graceful-restart-duration

- *sparse-mode*—Enables PIM in sparse mode
- *seconds*—Restart duration in seconds; default value is 30 seconds

Mode Global Configuration

Release Information Command introduced in JUNOS Release 8.1.0.

ip pim spt-threshold

Description Specifies the network configuration that PIM sparse mode uses when a source starts sending multicast messages. The **no** version restores the default value, 0.

Syntax [no] ip pim spt-threshold { 0 | *nonzero_integer* | infinity } [group-list *ipAccessList*]

- 0—Configures PIM sparse mode to switch to an SPT when a source begins to send multicast messages
- *nonzero_integer*—Integer in the range 1–4294967294; prevents PIM sparse mode from switching from a shared tree to an SPT
- infinity—Prevents PIM sparse mode from switching from a shared tree to an SPT
- *ipAccessList*—Name of the IP access list that specifies the groups to which the threshold applies

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip pim ssm

Description Enables SSM and defines the SSM range of IP multicast addresses. The **no** version disables SSM on the router.

Syntax ip pim ssm [default | range *ipAccessList*]
no ip pim ssm

- *default*—Specifies that SSM use the IANA-specified range of 232/8
- *ipAccessList*—Name of the IP access list that specifies the range of multicast addresses you want SSM to use

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip policy

Description Assigns a policy list to the ingress or egress of an interface.

For standard policy lists, specify the **input** or **output** keyword to assign the policy list to the ingress or egress of the interface. If you enter the **ip policy** command and the policy list does not exist, the router inserts a default filter rule. Attaching this policy list to an interface filters all packets on that interface.

For secure policy lists, which are used for packet mirroring, use the **secure-input** or **secure-output** keyword to assign the packet mirroring policy list to the ingress or egress side of the interface. If you use the **ip policy** command and the secure policy list does not exist, the router creates a secure policy list with a default mirror rule that disables mirroring. Attaching this policy list to an interface results in no packet mirroring.

In Profile Configuration mode, assigns the policy list to a profile, which then assigns the policy to an interface.

In Interface Configuration mode, the **no** version removes the association between a policy list and an interface. In Profile Configuration mode, the **no** version removes policy reference from the profile.

Syntax For standard policy lists in Interface Configuration mode:

```
ip policy { input | output } policyName
[ statistics { enabled [ baseline { enabled | disabled } ] [ preserve | merge ] |
disabled [ merge ] } | merge ]

no ip policy { input | output | secondary-input } [ policyName ]
```

For secure policy lists in Interface Configuration mode:

```
ip policy { secure-input | secure-output } policyName
[ statistics { enabled [ baseline baselineValue ] [ preserve ] | disabled } ]

no ip policy { secure-input | secure-output }
```

For policy lists in Profile Configuration mode:

```
ip policy { input | output } policyName
[ statistics { enabled | disabled } ] [ merge ]

no ip policy { input | output | secondary-input } [ policyName ]
```

- input—Applies policy to data arriving at this interface before a route lookup
- output—Applies policy to data leaving this interface

- **secondary-input**—Applies policy to data that arrives at this interface after a route lookup
- **secure-input**—Applies secure policy to data arriving at this interface
- **secure-output**—Applies secure policy to data leaving this interface



NOTE: The **ip policy** command used with the **secure-input** and **secure-output** keywords provides packet mirroring support. These keywords are available in Interface Configuration mode and do not support the statistics-related keywords. The **ip policy** command used with these keywords replaces the **ip mirror** command, which has been deprecated.

- *policyName*—Name of the policy; a maximum of 40 characters
- **statistics**—Enables or disables collection of policy routing statistics
 - **enabled**—Enables collection of policy routing statistics
 - **baseline enabled**—Enables baselining of policy routing statistics (Interface Configuration mode only)
 - **baseline disabled**—Disables baselining of policy routing statistics (Interface Configuration mode only)
 - **preserve**—Preserves existing statistics for any classifier list that is the same for both the new and old policy attachments when you attach a new policy to an interface
 - **disabled**—Disable collection of policy routing statistics
- **merge**—Enables merging of multiple policies to form a single policy



NOTE: The **local-input** keyword for the **ip policy** command is deprecated, and might be completely removed in a future release. We recommend that you remove the keyword from scripts.

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.
merge keyword added in JUNOS Release 7.2.0.
 Profile Configuration mode added in JUNOS Release 7.2.0.

Related Topics

- Setting a Statistics Baseline
- Configuring CLI-Based Mirroring

ip policy-list

Description Creates or modifies an IP policy list. If you execute an **ip policy-list** command and type **exit**, the router creates a policy list with no rules, the default. When a policy list does not have rules, the router inserts a default filter rule. Attaching this policy list to an interface filters all packets on that interface. The **no** version removes a policy list.

Syntax [no] ip policy-list *policyName*

- *policyName*—Name of the policy list

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

Related Topics

- Creating Policy Lists for IP

ip policy-parameter hierarchical

Description Specifies a parameter value for IP interfaces. The **no** version removes the policy parameter and its contents.

Syntax ip policy-parameter hierarchical *parameterName* { *nodeValue* | atm | atm-vc | atm-vp
vpValue | ethernet | fr-vc | forwarding | svlan *svlanValue* | vlan }
no policy-parameter *parameterName*

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

Mode Interface Configuration

Release Information Command introduced in JUNOS Release 8.0.0.

Related Topics

- Creating a Classifier Group for a Policy List

ip policy-parameter reference-rate

Description Creates an IP policy parameter for a reference rate; creates a global parameter if it does not exist. The **no** version removes the policy parameter and its contents; if used with the **increase** keyword, decreases the value.

Syntax In Interface Configuration mode:
 ip policy parameter reference-rate *parameterName* [increase] *value*
 no ip policy-parameter reference-rate *parameterName* [increase *value*]

In Profile Configuration mode:
 ip policy parameter reference-rate *parameterName* [increase] *value*
 no ip policy-parameter reference-rate *parameterName*

- *parameterName*—Name of policy parameter up to 40 characters
- increase—Increments the existing reference rate value
- *value*—Value of the reference rate parameter, in the range 0–4292967295

Mode Interface Configuration, Profile Configuration

Release Information Command introduced in JUNOS Release 8.1.0.

Related Topics

- Creating a Classifier Group for a Policy List

ip prefix-list

Description Creates a prefix list for route filtering; specifies a list entry—a permit or deny clause for a network address. The **no** version removes the specified prefix list or the specified list entry.

Syntax `ip prefix-list listName { description desc |
[seq sequence] { permit | deny } ipPrefix [ge geNumber] [le leNumber] }`
`no ip prefix-list listName [description |
[seq sequence] [{ permit | deny } ipPrefix [ge geNumber] [le leNumber]]]`

- *listName*—Name of the prefix list; a string of up to 32 characters
- *desc*—Description of the prefix list
- *sequence*—Number in the range 0–65535 that indicates the position the prefix list entry is to have in the list of entries already configured for the prefix list; if *sequence* is not specified, the value of the last sequence number + 5 is used
- *permit*—If the prefix of the route being filtered matches the specified prefix and **permit** is specified, the route is redistributed as controlled by the set actions
- *deny*—If the prefix of the route being filtered matches the specified prefix and **deny** is specified, the route is not redistributed
- *ipPrefix*—Network route to be filtered, in the format *network/length*, where
 - *network*—Base address of the network route to be filtered; for example, 192.168.32.0 or 10.10.0.0
 - *length*—Length of the network prefix; number of bits masking base address to produce address to be matched
- *geNumber*—Route being filtered matches if its prefix is within the range specified: greater than or equal to *geNumber* and less than or equal to 32
- *leNumber*—Route being filtered matches if its prefix is within the range specified: greater than or equal to *length* and less than or equal to *leNumber*

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip prefix-tree

Description	Creates a prefix tree for best-match route filtering; specifies a tree entry—a deny or permit clause for a network address. The no version removes the specified prefix tree or the specified tree entry.
Syntax	<pre>ip prefix-tree <i>treeName</i> { description <i>desc</i> { permit deny } <i>ipPrefix</i> }</pre> <pre>no ip prefix-tree <i>treeName</i> [description { permit deny } <i>ipPrefix</i>]</pre> <ul style="list-style-type: none"> ■ <i>treeName</i>—Name of the prefix list; a string of up to 32 characters ■ <i>desc</i>—Description of the prefix list ■ deny—If the prefix of the route being filtered matches the specified prefix and deny is specified, the route is not redistributed ■ permit—If the prefix of the route being filtered matches the specified prefix and permit is specified, the route is redistributed as controlled by the set actions ■ <i>ipPrefix</i>—Network route to be filtered, in the format <i>network/length</i>, where <ul style="list-style-type: none"> ■ <i>network</i>—Base address of the network route to be filtered; for example, 192.168.32.0 or 10.10.0.0 ■ <i>length</i>—Length of the network prefix; number of bits masking base address to produce address to be matched
Mode	Router Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip profile

Description	Specifies the IP profile that the IPSec layer passes on to the IP layer upon request for upper-layer instantiation. The no version removes the association with this profile.
Syntax	<pre>ip profile <i>profileName</i></pre> <pre>no ip profile</pre> <ul style="list-style-type: none"> ■ <i>profileName</i>—Name of the profile that you want the IPSec layer to pass to the IP layer upon request for upper-layer instantiation
Mode	IPSec Tunnel Profile Configuration
Release Information	Command introduced in JUNOS Release 7.3.0.

ip proxy-arp

Description Enables proxy ARP on an Ethernet or bridge1483 interface. Proxy ARP is enabled by default. The **no** version disables proxy ARP on an Ethernet or bridge1483 interface.

Syntax ip proxy-arp [restricted | unrestricted]
no ip proxy-arp

- restricted—Restricts proxy-arp to hosts on the local interface
- unrestricted—Enables proxy-arp for all reachable hosts

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip redirects

Description Enables the sending of redirect messages if the software is forced to resend a packet through the same interface on which it was received. The **no** version disables the sending of redirect messages.

Syntax [no] ip redirects

Mode Interface Configuration, Profile Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip refresh-route

Description Reinstalls routes removed from the IP routing table by the **clear ip route** command. There is no **no** version.

Syntax ip refresh-route [vrf *vrfName*]

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

Mode Privileged Exec

Release Information Command introduced before JUNOS Release 7.1.0.

ip rip

Description Configures RIP to run on the network specified by the **network** command. Uses the default values: send version is RIP version 1, receive version is RIP version 1 and version 2, authentication is not enabled. The **no** version deletes the RIP interface.

Syntax [no] ip rip

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip rip authentication key

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

Syntax ip rip authentication key [0 | 8] *authkey*
no ip rip authentication key

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

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip rip authentication mode

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

Syntax ip rip authentication mode { text | md5 *keyID* }
no ip rip authentication mode

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

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip rip bfd-liveness-detection

Description	Enables BFD (bidirectional forwarding detection) on an interface running RIP and defines BFD values to be negotiated between peers for detection of IP data path failures. The no version disables BFD on the RIP interface.
Syntax	<pre>ip rip bfd-liveness-detection [minimum-interval <i>minInterval</i> [minimum-receive-interval <i>minRecInterval</i>] [minimum-transmit-interval <i>minTransInterval</i>]] [multiplier <i>multValue</i>] no ip rip bfd-liveness-detection</pre> <ul style="list-style-type: none">■ <i>minInterval</i>—Minimum proposed transmit interval and required receive interval for BFD control packets; number in the range 100–65535 milliseconds; default value is 300 milliseconds■ <i>minRecInterval</i>—Minimum interval at which the local peer must receive BFD control packets sent by the remote peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds■ <i>minTransInterval</i>—Minimum proposed interval between BFD control packets sent by the local peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds■ <i>multValue</i>—Detection multiplier value that the remote peer router multiplies by the local peer's negotiated transmit interval to determine the remote peer's BFD liveness detection interval; equal to the number of BFD packets that can be missed before the BFD session is declared down; number in the range 1–255; default value is 3
Mode	Interface Configuration
Release Information	Command introduced in JUNOS Release 8.0.0.

ip rip copy-to-dynamic

Description	Enables RIP on dynamic, unnumbered IP interfaces. You cannot configure RIP on dynamic interfaces directly. However, this command allows dynamic, unnumbered interfaces (that refer to numbered IP interface for configuration data) to obtain RIP attributes from the numbered IP interface to which they refer. The no version disables the feature but does not remove all existing, active RIP interfaces that were created by this command.
Syntax	<pre>[no] ip rip copy-to-dynamic</pre>
Mode	Interface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip rip receive version

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

Syntax ip rip receive version { 1 | 2 | 1 2 | 2 1 | off }
 no ip rip receive version

- 1—Specifies RIP version 1 only
- 2—Specifies RIP version 2 only
- 1 2—Specifies RIP version 1 and version 2
- 2 1—Specifies RIP version 2 and version 1
- off—Turns reception off

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip rip send version

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

Syntax ip rip send version { 1 | 2 | 1 2 | 2 1 | off }
 no ip rip send version

- 1—Specifies RIP version 1 only
- 2—Specifies RIP version 2 only
- 1 2—Specifies RIP version 1 and version 2
- 2 1—Specifies RIP version 2 and version 1
- off—Turns reception off

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip route

Description Establishes static routes and can also enable Bidirectional Forwarding Detection (BFD) for the static route. The **no** version removes static routes or removes BFD from the static route.

Syntax `ip route [vrf vrfName] { ipAddress ipMask { ipNextHop
[interfaceType interfaceSpecifier] | interfaceType interfaceSpecifier } }
[distance] [tag tagVal] [permanent] [verify rtr rtrIndex [last-resort]]
[verify bfd-liveness-detection [minimum-interval minInterval]
[minimum-receive-interval minRecInterval]
[minimum-transmit-interval minTransInterval]] [multiplier multValue] [last-resort]]`
`no ip route [vrf vrfName] ipAddress ipMask [ipNextHop | interfaceType
interfaceSpecifier] [distance]`

- *vrfName*—Name of the VRF if the static route is being established within a VRF context; available only in Global Configuration mode
- *ipAddress*—Destination IP address
- *ipMask*—IP mask for the destination
- *ipNextHop*—IP address of the next hop that can be used to reach the destination network
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- *distance*—Administrative distance for this route in the range 0–254
- *tagVal*—Number in the range 0–4294967295 that identifies the tag for this route
- *permanent*—Specifies that the route will not be removed, even if the interface shuts down
- *verify rtr*—Installs the static route in the routing table only if the next hop to the specified destination address is resolved and if the specified RTR operation is currently reachable
- *rtrIndex*—Number of the RTR operation to be verified; there is no default value
- *last-resort*—Installs the static route in the routing table even if the specified RTR operation is currently unreachable, provided that no other static route to the same network prefix is available
- *verify bfd-liveness-detection*—Installs the static route in the routing table only if the next hop to the specified destination address is verifiable by means of BFD liveness detection

- *minInterval*—Minimum proposed transmit interval and required receive interval for BFD control packets; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minRecInterval*—Minimum interval at which the local peer must receive BFD control packets sent by the remote peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minTransInterval*—Minimum proposed interval between BFD control packets sent by the local peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *multValue*—Detection multiplier value that the remote peer router multiplies by the local peer's negotiated transmit interval to determine the remote peer's BFD liveness detection interval; equal to the number of BFD packets that can be missed before the BFD session is declared down; number in the range 1–255; default value is 3

Mode Global Configuration, VRF Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip route-cache flow sampled

Description Enables J-Flow statistics on an interface. The **no** version disables J-Flow statistics on the interface.

Syntax [no] ip route-cache flow sampled

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.
Profile Configuration mode added in JUNOS Release 7.2.0.

ip route-map ip-subscriber

Description Configures an interface for route-map processing and specifies the route map that is applied to the IP interface subscriber. If no route map is specified, then all packets will trigger the creation of a dynamic subscriber interface. The **no** version deletes the route map.

Syntax ip route-map ip-subscriber *routeMapName*
no ip route-map ip-subscriber

- *routeMapName*—Name of route map

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip route-type

Description Specifies whether BGP, IS-IS, OSPF, or RIP routes are available only for unicast forwarding, only for multicast reverse path forwarding checks, or for both. The **no** version restores the default value, **unicast** for BGP or **both** for IS-IS, OSPF, and RIP.

Syntax For BGP:
ip route-type [unicast | both]
no ip route-type

For IS-IS, OSPF, and RIP:
ip route-type [unicast | multicast | both]
no ip route-type

- unicast—Specifies that routes for the protocol are available only for unicast forwarding
- multicast—Specifies that routes for the protocol are available only for multicast route path forwarding checks; this option is not available for BGP
- both—Specifies that routes for the protocol are available for both unicast forwarding and multicast route path forwarding checks

Mode Address Family Configuration (RIP), Router Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip router-id

Description Establishes the IP address of a router. The **no** version removes the IP address assignment.

Syntax [no] ip router-id [*vrfName*] *ipAddress*

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *ipAddress*—IP address of the router

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

Related Topics

- Configuring the Loopback Interface and Router ID for BGP

ip router isis

Description Configures an IS-IS routing process for IP on an interface. The **no** version disables IS-IS for IP on the interface.

Syntax [no] ip router isis [*tag*]

- *tag*—Meaningful name for a routing process. If not specified, a null tag is assumed. The name must be unique among all IP router processes for a given router. Use the same text for the argument tag as specified in the **router isis** command.

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip-router-name

Description Assigns an IPv4 virtual router. The **no** version restores the default router.



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

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

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

Mode Domain Map Configuration

Release Information Command introduced in JUNOS Release 9.0.0.

ip rpf-route

Description	Customizes static routes that the router can use to verify source addresses in multicast packets. The no version removes the static route.
Syntax	<pre>ip rpf-route <i>ipAddress</i> <i>addressMask</i> { <i>nextHopIpAddress</i> <i>nextHopInterfaceType</i> <i>nextHopInterfaceSpecifier</i> } [<i>distanceValue</i>] [<i>tag</i> <i>tagValue</i>] [no] ip rpf-route <i>ipAddress</i> <i>addressMask</i></pre> <ul style="list-style-type: none">■ <i>ipAddress</i>—IP address of the destination network■ <i>addressMask</i>—Subnet mask for the destination network■ <i>nextHopIpAddress</i>—IP address of the next hop■ <i>nextHopInterfaceType</i>—Interface type; see <i>Interface Types and Specifiers</i> in <i>About This Guide</i>■ <i>nextHopInterfaceSpecifier</i>—Particular interface; format varies according to interface type; see <i>Interface Types and Specifiers</i> in <i>About This Guide</i>■ <i>distanceValue</i>—Number in the range 0–255 that indicates the preference for this route■ <i>tagValue</i>—Number in the range 0–4294967295 that identifies the route in the routing table
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip rsvp authentication

Description	Enables MD5 authentication on the RSVP interface in implementations on routers from other vendors. See the mpls rsvp authentication command for a complete description and syntax.
--------------------	---

ip rsvp authentication key

Description	Assigns a key for MD5 authentication between RSVP peers in implementations on routers from other vendors. See the mpls rsvp authentication key command for a complete description and syntax.
--------------------	--

ip rsvp bandwidth

Description	Specifies the total bandwidth <i>reservable</i> on the interface in a non-E-series implementation. See the mpls bandwidth command for a complete description and syntax.
--------------------	---

ip rsvp bfd-liveness-detection

Description Enables BFD (bidirectional forwarding detection) on an interface running RSVP-TE and defines BFD values to be negotiated between RSVP-TE neighbors for detection of IP data path failures. See the **mpls rsvp bfd-liveness-detection** command for a complete description and syntax.

ip rsvp signalling hello

Description Turns on or configures RSVP-TE hello support. See the **mpls rsvp signalling hello** command for a complete description and syntax.

ip sa-validate

Description Enables source address validation on an interface. This feature verifies that a packet has been sent from a valid source address. When a packet arrives on an interface, the router performs a routing table lookup using the source address. The result from the routing table lookup is an interface to which packets destined for that address are routed. This interface must match the interface that the packet arrived on. If it does not match, the router drops the packet. The **no** version disables source address validation.

Syntax [no] ip sa-validate

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip sa-validate trap-enable

Description Enables the generation of source address validation failure traps. The **no** version disables the generation of source address validation failure traps.

Syntax [no] ip sa-validate [vrf *vrfName*] trap-enable

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

Mode Global Configuration

Release Information Command introduced in JUNOS Release 7.1.0.

ip service-profile

Description	Specifies a service profile used in the route map and enters Service Profile configuration mode. The no version deletes the profile.
Syntax	<pre>ip service-profile <i>profileName</i> no ip service-profile</pre> <ul style="list-style-type: none">■ <i>profileName</i>—Name of service profile
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip share-interface

Description	Specifies the layer 2 interface that an IP interface will share in the current virtual router. The no version removes the association between the layer 2 interface and the shared IP interface.
Syntax	<pre>ip share-interface <i>interfaceType interfaceSpecifier</i> no ip share-interface</pre> <ul style="list-style-type: none">■ <i>interfaceType</i>—Interface type; see <i>Interface Types and Specifiers</i> in <i>About This Guide</i>■ <i>interfaceSpecifier</i>—Particular interface; format varies according to interface type; see <i>Interface Types and Specifiers</i> in <i>About This Guide</i>
Mode	Interface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip share-nexthop

Description	Specifies that the shared IP interface dynamically tracks a next hop for the specified destination. The no version halts tracking of the next hop.
Syntax	<pre>ip share-nexthop <i>ipAddress</i> [virtual-router <i>vrName</i>] no ip share-nexthop</pre> <ul style="list-style-type: none">■ <i>ipAddress</i>—IP address of the destination for which the next hop is tracked■ <i>vrName</i>—Name of the virtual router for the next hop
Mode	Interface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip shutdown

Description	Shuts down an IP interface. The no version restarts the interface.
Syntax	[no] ip shutdown
Mode	Interface Configuration, Subinterface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip source-prefix

Description	Configures a subscriber interface or a primary IP interface that is enabled for dynamic creation of subscriber interfaces to demultiplex traffic with the specified IP address and mask. The no version removes the association between the interface and the specified IP address and mask.
Syntax	[no] ip source-prefix <i>ipAddress</i> <i>ipAddressMask</i> deny <ul style="list-style-type: none"> ■ <i>ipAddress</i>—IP address of the physical interface that receives messages for this subscriber ■ <i>ipAddressMask</i>—Network mask for associated IP subnet ■ <i>deny</i>—Filters packets matching this command
Mode	Interface Configuration, Subinterface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip source-route

Description	Enables the forwarding of source-routed packets in a VR or VRF. The no version disables forwarding. Forwarding is disabled by default in all VRs.
Syntax	[no] ip source-route [vrf <i>vrfName</i>] <ul style="list-style-type: none"> ■ <i>vrfName</i>—Name of the VRF; string of 1–32 alphanumeric characters
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip speed

Description	Sets the speed of an IP interface in bits per second. The no version restores the default value, 0 bps.
Syntax	[no] ip speed <i>adminSpeed</i> <ul style="list-style-type: none">■ <i>adminSpeed</i>—Speed of the interface in bps in the range 1–4294967295
Mode	Interface Configuration, Subinterface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip split-horizon

Description	Enables split horizon, preventing the RIP router from advertising routes from the interface originating the route, reducing the possibility of routing loops; this is the default condition. The no version disables split horizon.
Syntax	[no] ip split-horizon
Mode	Interface Configuration, Subinterface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip ssh authentication-retries

Description	Sets the number of times that a user can retry a failed authentication (such as trying to correct a wrong password) before the server terminates the connection. The no version restores the default value, 20 retries.
Syntax	ip ssh authentication-retries <i>retryLimit</i> no ip ssh authentication-retries <ul style="list-style-type: none">■ <i>retryLimit</i>—Number of times authentication can be retried after the initial failure within a given connection attempt
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip ssh crypto

Description Adds an encryption algorithm to the specified list of supported algorithms. The **no** version removes or excludes an algorithm from the specified list. The **default** version restores the default algorithms for the specified list.

Syntax `ip ssh crypto [client-to-server | server-to-client] [no | default] cipherAlgorithm`

- `client-to-server`—Adds the specified algorithm to the SSH server's list of supported inbound algorithms
- `server-to-client`—Adds the specified algorithm to the SSH server's list of supported outbound algorithms
- `no`—Removes or excludes the specified algorithm from the list
- `default`—Restores the specified list to the factory defaults, which includes 3des-cbc, twofish-cbc, and blowfish-cbc
- *cipherAlgorithm*—Algorithm to add to the list

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip ssh disable-user-authentication

Description Disables RADIUS password authentication, resulting in the acceptance of all SSH clients that pass protocol negotiation. The **no** version restores RADIUS authentication.

Syntax `[no] ip ssh disable-user-authentication`

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip ssh mac

Description Adds a MAC algorithm to the specified list of supported algorithms. The **no** version removes or excludes an algorithm from the specified list. The **default** version restores the default algorithms for the specified list.

Syntax `ip ssh mac [client-to-server | server-to-client] [no | default] macAlgorithm`

- `client-to-server`—Adds the specified algorithm to the SSH server’s list of supported inbound algorithms
- `server-to-client`—Adds the specified algorithm to the SSH server’s list of supported outbound algorithms
- `no`—Removes or excludes the specified algorithm from the list
- `default`—Restores the specified list to the factory defaults, which includes hmac-md5, hmac-sha1, and hmac-sha1-96
- *macAlgorithm*—Algorithm to add to the list

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip ssh sleep

Description Sets a sleep period in seconds for users that have exceeded the authentication retry limit. Connection attempts from the user at the same host are denied until this period expires. The **no** version restores the default value, 600 seconds.

Syntax `ip ssh sleep sleepPeriod`
`no ip ssh sleep`

- *sleepPeriod*—Period in the range 0–4294967295 seconds

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip ssh timeout

Description Sets a timeout period in seconds. The SSH server terminates the connection if protocol negotiation—including user authentication—is not complete within this timeout. The **no** version restores the default value, 600 seconds.

Syntax `ip ssh timeout timeout`
`no ip ssh timeout`

- *timeout*—Period in the range 10–600 seconds

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip static-route table-map

Description Filters static routes before adding them to the routing table. The **no** version deletes the table map.

Syntax `ip static-route table-map [vrf vrfName] mapName`
`no ip static-route table-map [vrf vrfName] [mapName]`

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *mapName*—Name of the table map that you want the router to use

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip summary-address

Description Summarizes specified addresses for RIP. The **no** version removes the summarization.

Syntax `ip summary-address [rip] ipAddress ipAddressMask [metric]`
`no ip summary-address [rip] ipAddress ipAddressMask`

- *rip*—Specifies optional keyword for compatibility with non-E-series implementations
- *ipAddress*—IP address identifying the route to be summarized
- *ipAddressMask*—Network mask identifying the route to be summarized
- *metric*—Specifies a metric for the summary address; default value is 1

Mode Address Family Configuration, Router Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip tcp ack-rst-and-syn

Description The **ip** keyword for **tcp** commands is now optional (with the exception of the **ip tcp adjust-mss** command, which is IPv4 specific). For information about this command and any other **ip tcp** command, see the **tcp** commands.

ip tcp adjust-mss

Description Modifies the maximum segment size (MSS) for TCP SYN packets traveling through the interface. The router compares the MSS value of incoming or outgoing packets against the MSS adjustment value. For any packet that contains an MSS value larger than the MSS adjustment value, the router replaces the MSS option with the configured adjustment value. If the packet does not contain an MSS value, the router assumes a value of 536 for the packet MSS on which to base the comparison. The **no** version removes the MSS modification.



NOTE: The purpose behind using MSS is to alleviate problems with Path MTU Discovery (PMTUD) and resulting “black hole” detection issues. See *RFC 2923—TCP Problems with Path MTU Discovery (September 2000)* for additional information about the black hole scenario.

Syntax [ip] tcp adjust-mss *mssAdjustment*
no [ip] tcp adjust-mss

- ip—Specifies optional keyword for use with older scripts
- *mssAdjustment*—Adjustment value for the MSS; in the range 160–10240

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip ttl

Description Sets the hop count specified by the TTL field in the IP header used by IP for all operations unless overridden by another command. The **no** version restores the default value, 127.

Syntax ip ttl [*vrfName*] *ttlValue*
no ip ttl [*vrfName*]

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *ttlValue*—Number in the range 1–255

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip tunnel reassembly

Description	Enables the reassembly of fragmented IP tunnel packets that are received on the current virtual router. The no version restores the default disabled condition.
Syntax	[no] ip tunnel reassembly
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip unnumbered

Description	Enables IP processing on an interface without assigning an explicit IP address to the interface. The no version disables IP processing on the interface.
Syntax	[no] ip unnumbered <i>interfaceType interfaceSpecifier</i> <ul style="list-style-type: none"> ■ <i>interfaceType</i>—Interface type; see <i>Interface Types and Specifiers</i> in <i>About This Guide</i> ■ <i>interfaceSpecifier</i>—Particular interface; format varies according to interface type; see <i>Interface Types and Specifiers</i> in <i>About This Guide</i>
Mode	Interface Configuration, Profile Configuration, Subinterface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip unreachable

Description	Enables the generation of an ICMP unreachable message when a packet is received that cannot be delivered by the router. The no version disables this function.
Syntax	[no] ip unreachable
Mode	Interface Configuration, Subinterface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip use-framed-routes ip-subscriber

Description	Configures the router to enable a static primary IP interface to use the RADIUS Framed-Route attribute [22]. The primary IP interface applies the framed routes as source IP addresses when creating and configuring dynamic subscriber interfaces. The no version disables the primary IP interface support of the Framed-Route RADIUS attribute.
Syntax	[no] ip use-framed-routes ip-subscriber
Mode	Interface Configuration
Release Information	Command introduced in JUNOS Release 8.1.0.

ip virtual-router

Description Specifies a virtual router in an IP profile. Dynamic interfaces created with the profile are assigned to this VR. The **no** version removes the VR from the profile; if a VR is not specified via RADIUS, then any subsequent creation process for dynamic interfaces using the profile fails.

Syntax [no] ip virtual-router *vrName*

- *vrName*—Name of the virtual router; a string of 1–15 alphanumeric characters

Mode Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip vrf

Description Creates a VRF or accesses VRF Configuration mode to configure a VRF. The **no** version deletes the VRF.



NOTE: After creating the VRF, you must configure a route distinguisher for it via the **rd** command; otherwise, the VRF will not operate.

Syntax ip vrf *vrfName*
no ip vrf *vrfName* [wait-for-completion [*waitSeconds*]]

- *vrfName*—Name of the VRF; a string of 1–32 alphanumeric characters
- wait-for-completion—Specifies (in the absence of *waitSeconds*) that the CLI waits for completion of the **no** version operation before it returns a prompt, regardless of how long that takes
- *waitSeconds*—Number of seconds in the range 1–64000 that the CLI waits before it returns a prompt, regardless of whether the **no** version operation has completed

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip vrf forwarding

Description Assigns a VRF to an interface or subinterface. Optionally specifies secondary routing table lookup on the parent (global) virtual router forwarding table if a lookup on the initial VRF forwarding table does not yield any results. The **no** version removes the assignment or discontinues the secondary routing table lookup option.



NOTE: The **ip vrf forwarding** command changes the prompt to indicate that the CLI is now in Interface or Subinterface Configuration mode within the child VRF. This condition persists only for as long as you are configuring attributes on the given interface within the VRF. Entering a top-level command, such as **interface**, within this VRF context takes the CLI out of the VRF context back to the parent VR context.

NOTE: When you issue the **ip vrf forwarding** command from within the Interface Configuration or Subinterface Configuration mode of the parent VR, the IP address and other attributes of the interface are deleted from the interface. You must then reconfigure the IP attributes in the context of the VRF after issuing the command.

Syntax [no] ip vrf forwarding *vrfName* [fallback global]

- *vrfName*—Name of the VRF; a string of 1–32 alphanumeric characters
- fallback global—Specifies secondary routing table lookup on the parent (global) virtual router forwarding table, if an initial VRF forwarding table lookup does not yield results.

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip vrrp

Description Creates a VRRP instance ID. The **no** version removes a VRID. The default is disabled.

Syntax [no] ip vrrp *vrid*

- *vrid*—VRID identifier; a number in the range 1–255

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip vrrp accept-data

Description Enables the backup router to process packets with an IP destination address equivalent to the virtual addresses while the backup router is in the master state. The **no** version restores the default value, disabled.



NOTE: When using this attribute and also restricting incoming packets to ICMP only, you must use policy filters to accept only ICMP packets with the virtual address as the destination address.

Syntax [no] ip vrrp *vrid* accept-data

- *vrid*—VRID identifier; a number in the range 1–255

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip vrrp advertise-interval

Description Configures the VRRP advertisement interval time. You must use seconds to comply with RFC 2338. Use milliseconds only if all VRRP instances peering for the given VRID are composed of E-series routers. The **no** version restores the default value, 1 second.

Syntax ip vrrp *vrid* advertise-interval *advertiseInterval* [seconds | milliseconds]
no ip vrrp *vrid* advertise-interval

- *vrid*—VRID identifier; a number in the range 1–255
- *advertiseInterval*—Advertisement period in seconds or milliseconds; in the range 1–255 seconds or 100–255000 milliseconds
- seconds—Specifies interval in seconds
- milliseconds—Specifies interval in milliseconds

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip vrrp authentication-key

Description Specifies the authentication key. This command is only valid if the **text** keyword was selected in the **ip vrrp authentication-type** command. The **no** version negates the command or restores the default.

Syntax ip vrrp *vrid* authentication-key *key*
 no ip vrrp *vrid* authentication-key

- *vrid*—VRID identifier; a number in the range 1–255
- *key*—String of 1–8 characters

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip vrrp authentication-type

Description Specifies the VRRP authentication type. The **no** version restores the default value, none.

Syntax ip vrrp *vrid* authentication-type { none | text }
 no ip vrrp *vrid* authentication-type

- *vrid*—VRID identifier; a number in the range 1–255
- none—Disables authentication
- text—Specifies simple text password

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip vrrp enable

Description Enables a VRID. The **no** version disables a VRID. The default is disabled.

Syntax [no] ip vrrp *vrid* [enable]

- *vrid*—VRID identifier; a number in the range 1–255

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ip vrrp preempt

Description	Enables VRRP preemption. The no version disables VRRP preemption. The default is enabled.
Syntax	[no] ip vrrp <i>vrid</i> preempt <ul style="list-style-type: none">■ <i>vrid</i>—VRID identifier; a number in the range 1–255
Mode	Interface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip vrrp priority

Description	Configures the priority of VRRP routers. The no version restores the default value, 100.
Syntax	ip vrrp <i>vrid</i> priority <i>priorityValue</i> no ip vrrp <i>vrid</i> priority <ul style="list-style-type: none">■ <i>vrid</i>—VRID identifier; a number in the range 1–255■ <i>priorityValue</i>—Priority value of the VRRP router; a number in the range 1–255; default value is 100
Mode	Interface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ip vrrp track

Description	Tracks a specified object and changes the priority of that object when the state of the object changes from an up state to a down state. The priority is decremented by the specified value or by the default value (100; when no decrement value is specified). The object priority is restored when the state of the object changes from a down state to an up state. The no version disables any tracking for the object.
Syntax	ip vrrp <i>vrid</i> track <i>objectName</i> [decrement <i>priorityValue</i>] no ip vrrp <i>vrid</i> track <i>objectName</i> <ul style="list-style-type: none">■ <i>vrid</i>—VRID identifier; a number in the range 1–255■ <i>objectName</i>—Name of the object to track■ <i>priorityValue</i>—Priority value of the VRRP router; a number in the range 1–255; default value is 100
Mode	Interface Configuration
Release Information	Command introduced in JUNOS Release 7.2.0.

ip vrrp virtual-address

Description Associates an IP address with a VRID. The **no** version removes a list of IP addresses associated with a VRID. The **no** version clears the auto flag, if auto addresses are being used. There is no default.

Syntax `ip vrrp vrid virtual-address { auto | ipAddress ipAddress [ipAddress ipAddress]* }`
`no ip vrrp vrid virtual-address [ipAddress ipAddress]*`

- *vrid*—VRID identifier; a number in the range 1–255
- *ipAddress*—IP address
- *—Indicates that one or more parameters can be repeated multiple times in a list in the command line

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipsec ca authenticate

Description Obtains the specified CA's public key (a self-signed certificate) during online digital certificate configuration. The CA must be previously declared by the **ipsec ca identity** command. There is no **no** version; however, to remove the CA certificate, issue the **no ipsec ca identity** command for the specified CA or boot the router using the factory defaults.

Syntax `ipsec ca authenticate caName`

- *caName*—Name of CA

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipsec ca enroll

Description Generates a certificate request to the specified CA and retrieves the public key certificate for the router during online digital certificate configuration. The CA must be previously declared by the **ipsec ca identity** command. There is no **no** version.

Syntax `ipsec ca enroll caName [password]`

- *caName*—Name of CA
- *password* —Challenge password to access the CA and enable enrollment

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipsec ca identity

Description Specifies the certificate authority (CA) that the router uses for certificate requests and enters IPsec Identity Configuration mode during online digital certificate configuration. The **no** version deletes the identity information and the certificates associated with the specified CA.

Syntax [no] ipsec ca identity *name*

- *name*—Name of CA

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipsec certificate-database refresh

Description Informs the E-series router that a public key certificate has been copied to the router. There is no **no** version.

Syntax ipsec certificate-database refresh

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipsec certificate-request generate

Description Generates a certificate request. There is no **no** version.

Syntax ipsec certificate-request generate rsa *fileName*

- *rsa*—Specifies that the certificate request is issued for the RSA public key
- *fileName*—Name of the certificate request file generated on the E-series router; the filename must include a .crq extension

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipsec clear sa

- Description** Refreshes ISAKMP/IKE or IPSec SAs. There is no **no** version.
- Syntax** `ipsec clear sa { all [state tunnelState] | tunnel tunnelName } [phase { 1 | 2 }]`
- `all`—Reinitializes all SAs
 - `state`—Reinitializes SAs on tunnels that are in a specific state
 - `tunnelState`—State of tunnel, up, down, not-present
 - `tunnel`—Specifies that an SA on a specific tunnel is to be reinitialized
 - `tunnelName`—Name of tunnel
 - `phase`—Specifies one of the following types of tunnel to be reinitialized:
 - 1—ISAKMP/IKE tunnels
 - 2—IPSec tunnels
- Mode** Global Configuration
- Release Information** Command introduced before JUNOS Release 7.1.0.

ipsec crl

- Description** Controls how the router checks certificate revocation lists (CRLs) when determining whether to accept a peer's certificates. The **no** version restores the default setting.



NOTE: This command is replacing the **ike crl** command. The **ike crl** command may be removed completely in a future release.

- Syntax** `ipsec crl { ignored | optional | required }`
- `no ipsec crl`
- `ignored`—Specifies that the router will not try to find or use CRLs
 - `optional`—Specifies that the router will try to find a CRL. If a CRL is found, the peer certificate must not appear in the CRL. If no CRL is found, the peer can still authenticate; this is the default.
 - `required`—Specifies that the router must find a valid CRL; the CRL must be current, and the peer certificate must not appear in the CRL
- Mode** Global Configuration
- Release Information** Command introduced before JUNOS Release 7.1.0.

ipsec identity

Description Configures the identity that the router uses in certificate requests and during negotiations with its peers. The **no** version removes the identity configuration.

Syntax [no] ipsec identity

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipsec ike-policy-rule

Description Defines and prioritizes an ISAKMP/IKE policy. ISAKMP/IKE policies define parameters to be used during ISAKMP/IKE negotiation. You can have up to 10 ISAKMP/IKE policies per router. The **no** version removes a policy. If you do not include a priority number with the **no** version, the software removes all ISAKMP/IKE policies.



NOTE: This command is replacing the **ipsec isakmp-policy-rule** command. The **ipsec isakmp-policy-rule** command may be removed completely in a future release.

Syntax ipsec ike-policy-rule *priority*

no ipsec ike-policy-rule [*priority*]

- *priority*—Identifies and prioritizes the ISAKMP/IKE policy; in the range 1 to 10000, with 1 having the highest priority

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipsec isakmp-policy-rule

Description Defines and prioritizes an ISAKMP/IKE policy. ISAKMP/IKE policies define parameters to be used during ISAKMP/IKE negotiation. You can have up to 10 ISAKMP/IKE policies per router. The **no** version removes a policy. If you do not include a priority number with the **no** version, the software removes all ISAKMP/IKE policies.



NOTE: This command has been replaced by the **ipsec ike-policy-rule** command and may be removed completely in a future release.

Syntax ipsec isakmp-policy-rule *priority*
 no ipsec isakmp-policy-rule [*priority*]

- *priority*—Identifies and prioritizes the ISAKMP/IKE policy; in the range 1–10000, with 1 having the highest priority

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipsec key generate

Description Generates RSA key pairs. Specify the length of the key in bits, either 1024 or 2048. There is no **no** version. To remove a key pair, use the **ipsec key zeroize** command.

Syntax ipsec key generate rsa { 1024 | 2048 }

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipsec key manual pre-share

Description Specifies a preshared key for a remote peer, indexed by remote IP or remote identity. It can also specify a preshared key which is indexed by the local ip / remote IP pair for use in specific pairings or in group preshared keys (remote is wildcard 0.0.0.0).

Manually configured keys are used during the tunnel establishment phase when the ISAKMP/IKE policy specifies preshared key authentication.

You can identify the remote peer by either IP address or fully qualified domain name (FQDN). The **no** version deletes a preshared key.



NOTE: You must enter this command in the virtual router context where the IP address or FQDN of the peer is defined.

Syntax [no] ipsec key manual pre-share { *ipAddress* | ip address *ipAddress* | identity *fqdn* | local-ip-address *localIpAddress* [remote-ip-address *remoteIpAddress*] }

- *ipAddress*—Address of the peer for which the key can be used
- *fqdn*—Fully qualified domain name of the peer for which the key can be used; a maximum of 80 characters
- *localIpAddress*—Address of the local peer for which the key can be used
- *remoteIpAddress*—Address of the remote peer for which the key can be used

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.
local-ip-address and **remote-ip-address** keywords added in JUNOS Release 7.3.0.
localIpAddress and *remoteIpAddress* variables added in JUNOS Release 7.3.0.

ipsec key pubkey-chain rsa

Description Enables you to configure the public key for a remote peer with which you want to establish IKE SAs. This command accesses IPsec Peer Public Key Configuration mode, from which you can enter the peer public key data without the need for a digital certificate. Public keys are used during the tunnel establishment phase when the ISAKMP/IKE policy specifies RSA digital signature authentication. The **no** version removes the peer public key from the router.

Syntax [no] ipsec key pubkey-chain rsa { address *ipAddress* | name *identityString* }

- *ipAddress*—IP address of the peer for which the public key can be used, in 32-bit dotted decimal format (for example, 192.168.32.2)
- *identityString*—Identity of the remote peer for which the public key can be used, either in fully qualified domain name (FQDN) format (for example, group003.customer535.isp.net) or in FQDN format preceded by an optional *user@* specification (for example, tsmith@group003.customer535.isp.net); maximum of 80 characters

Mode Global Configuration

Release Information Command introduced in JUNOS Release 7.1.0.

ipsec key zeroize

Description Deletes RSA key pairs. There is no **no** version.

Syntax ipsec key zeroize { rsa | pre-share | all }

- *rsa*—Removes the RSA key pair from the router
- *pre-share*—Removes all preshared keys from the router
- *all*—Removes all keys within the VR context from the router

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipsec lifetime

Description Specifies the default lifetime in volume of traffic or seconds. The default lifetime applies to secure tunnels that do not have a tunnel lifetime defined. When either the volume of traffic or number of seconds limit is reached, IPSec renegotiates the SA. The **no** version restores the default values.

Syntax [no] ipsec lifetime { kilobytes *kilobytes* | seconds *seconds* }

- *kilobytes*—Volume of traffic in kilobytes that can pass between IPSec peers before the SA expires; in the range 102400–4294967295; default value is 4294967295 kilobytes; a setting of zero turns off the kilobyte lifetime
- *seconds*—Number of seconds an SA lives before expiring; in the range 7200–4294967295; default value is 28800 seconds (8 hours)

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipsec local-endpoint

Description Defines a default local endpoint used for ISAKMP/IKE negotiations and all IPSec tunnels for a transport virtual router. The **no** version restores the default settings of the local endpoint.

Syntax [no] ipsec local-endpoint *ipAddress* transport-virtual-router *transportVRName*

- *ipAddress*—IP address to use as the local endpoint
- *transportVRName*—Name of transport virtual router in which the IP address is defined

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipsec option dpd

Description Enables IPSec dead peer detection (DPD) for the current virtual router. With DPD enabled, the router detects when connectivity between the router and an IPSec peer has been terminated. The router then sets the status for the tunnel and the upper layer interfaces to down, which enables routing protocols to take alternate routes. Also, administrators can then take corrective action. The **no** version restores the default DPD setting, disabled.

Syntax [no] ipsec option dpd

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipsec option nat-t

Description Enables IPsec Network Address Translation Traversal (NAT-T) for the current virtual router. With NAT-T enabled, IPsec traffic flows transparently through a NAT device, thereby allowing one or more remote hosts located behind the NAT device to use secure L2TP/IPsec tunnels to access the router. The **ipsec option nat-t** command affects only IKE SAs negotiated on this virtual router after the command is issued; it has no effect on previously negotiated IKE SAs. The **no** version disables NAT-T for the current virtual router. The **default** version restores the default NAT-T setting, enabled.

Syntax [no | default] ipsec option nat-t

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipsec option tx-invalid-cookie

Description Enables transmission of invalid cookie notification for the current virtual router (transport VR). With invalid cookie notification enabled, the router signals to an ISAKMP peer when it does not recognize an IKE phase 1 message received from the peer. The **no** version restores the default setting, disabled.

Syntax [no] ipsec option tx-invalid-cookie

Mode Global Configuration

Release Information Command introduced in JUNOS Release 8.1.0

ipsec transform-set

Description Creates a transform set. Transform sets used for manually configured tunnels can have only one transform. Transform sets used for signaled tunnels can have up to six transforms. Transforms are numbered in a priority sequence in the order in which you enter them. Each transform provides a different combination of data authentication and confidentiality. The **no** version deletes the transform set.

Syntax ipsec transform-set *transformSetName* *transform0*
[*transform1* [*transform2* [*transform3* [*transform4* [*transform5*]]]]]

no ipsec transform-set *transformSetName*

- *transformSetName*—Name of the transform set
- *transform0* through *transform5*—AH or ESP transform; use the online Help to view available transforms

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipsec transport profile

- Description** Creates or configures a transport profile for IPsec and accesses the IPsec Transport Profile Configuration mode. The **no** version deletes the transport profile.
- Syntax** [no] ipsec transport profile { *profileName* [[virtual-router *vrName*] ip address *ipAddress*] | [virtual-router *vrName*] ip address *ipAddress* }
no ipsec transport profile { *profileName* | [virtual-router *vrName*] ip address *ipAddress* }
- *profileName*—Name of the transport profile
 - *vrName*—Name of the VR on which you want to create the profile. If you do not specify a virtual router, the current virtual router context is used
 - *ipAddress*—Remote endpoint for the IPsec transport connection. You can enter a single IP address or the wildcard address of 0.0.0.0. If you use the wildcard address, the profile accepts any remote client connection, which is a typical scenario for secure remote access.
- Mode** Global Configuration
- Release Information** Command introduced before JUNOS Release 7.1.0.

ipsec tunnel profile

- Description** Creates or configures a tunnel profile for IPsec and accesses the IPsec Tunnel Profile Configuration mode (config-ipsec-tunnel-profile). The **no** version deletes the tunnel profile.
- Syntax** ipsec tunnel profile *profileName* [virtual-router *vrName*]
no ipsec tunnel profile *profileName*
- *profileName*—Name of the tunnel profile
 - *vrName*—Name of the VR on which you want to create the profile. If you do not specify a virtual router, the current virtual router context is used
- Mode** Global Configuration
- Release Information** Command introduced in JUNOS Release 7.3.0.

ipv6

Description Enables an IPv6 instance on a router that does not already have an explicit IPv6 address. Normally, performing any IPv6 configuration automatically enables IPv6 on the interface. The **no** version disables IPv6 on the router.



NOTE: Disabling IPv6 on the router disables all IPv6 unicast routing protocols.

Syntax [no] ipv6

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 access-list

Description Defines an IPv6 access list. The extended access list enables you to specify a destination address or host, precedence, and type of service. Imposes an implicit last rule of “deny ip any any” to deny all routes that do not match previous rules in the access list. The **no** version removes the IPv6 access list, the specified entry in an access list, or the log for a specified entry.

Syntax Extended IPv6 access list:

```
ipv6 access-list accessListName { permit | deny } { srcIPv6Prefix |
host srcIPHost | any } { dstIPv6Prefix | host dstIPHost | any } [ log ]
```

```
no ipv6 access-list accessListName [ { permit | deny } { srcIPv6Prefix |
host srcIPv6Host | any } { dstIPv6Prefix | host dstIPv6Host | any } [ log ] ]
```

- *accessListName*—String of up to 32 alphanumeric characters
- *permit*—Permits access if the conditions are matched
- *deny*—Denies access if the conditions are matched
- *srcIPv6Prefix*—Source IPv6 address and mask length from which the packet is being sent
- *srcIPv6Host*—Source host IPv6 address; assumes a mask length of 128
- *any*—Creates an address of :: with a mask length of 0
- *dstIPv6Prefix*—Destination IP address and mask length
- *dstIPv6Host*—Destination host IPv6 address to which the packet is being sent
- *log*—Logs an Info event into the ipAccessList log whenever the access-list rule is matched

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 access-route table-map

Description Filters access routes before an access list adds them to the routing table. The **no** version deletes the table map.

Syntax `ipv6 access-route [vrf vrfName] table-map mapName`
`no ipv6 access-route [vrf vrfName] table-map [mapName]`

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *mapName*—Name of the table map that you want the router to use

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.
vrf keyword and *vrfName* variable added in JUNOS Release 7.2.0.

ipv6 address

Description Assigns an IPv6 address (or network) to an interface and enables IPv6 processing on that interface. The **no** version deletes the association from the interface.



NOTE: The link-local address for an interface is automatically configured when IPv6 is enabled on the interface.

Syntax `[no] ipv6 address ipv6Prefix [eui-64]`
`[no] ipv6 address [ipv6Address maskLength [eui-64]]`

- *ipv6Prefix*—Prefix that defines the IPv6 interface or network in the format *ipv6Address/length*, where
 - *ipv6Address*—Base IPv6 address of the network route that you want to filter (for example, ::ffff:a:b:c:d)
 - *length*—Length of the network prefix; number of bits masking base address to produce address to be matched
- *ipv6Address*—Base IPv6 address of the network route that you want to filter (for example, ::ffff:a:b:c:d); the *ipv6Address* must appear in hexadecimal format using 16-bit values between colons. Refer to *RFC 2373—IP Version 6 Addressing Architecture (July 1998)* for details.
- *maskLength*—Length of the IPv6 mask. A decimal value that indicates how many of the high-order contiguous bits of the address comprise the prefix (the network portion of the address).
- *eui-64*—Specifies the use of the eui-64 interface identifier

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 block-multicast-sources

Description Prevents mroute creation by blocking multicast traffic that has a scope larger than link-local (for example, global). The **no** version restores the default behavior of creating mroutes upon receiving multicast packets.

Syntax [no] ipv6 block-multicast-sources

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 classifier-list

Description Creates or modifies an IPv6 classifier control list. The **no** version removes the classifier control list.

Syntax `ipv6 classifier-list classifierName [traffic-class trafficClassName]`
`[color { green | yellow | red }] [user-packet-class userPacketClassValue]`
`[source-route-class routeClassValue] [destination-route-class routeClassValue]`
`[local { true | false }]`
`[source-address ipv6Prefix | source-host ipv6Address]`
`[destination-address ipv6Prefix | destination-host ipv6Address]`
`[precedence precNum | dsfield dsFieldNum | tcfield tcFieldNum]`
`[protocol [protocolQualifier]]`
no `ipv6 classifier-list classifierName [classifierNumber]`

- *classifierName*—Name of the classifier control list entry
- *trafficClassName*—Name of the traffic class to match
- *green*—Matches packet color to green, indicating a low drop preference
- *yellow*—Matches packet color to yellow, indicating a medium drop preference
- *red*—Matches packet color to red, indicating a high drop preference
- *userPacketClassValue*—User packet value to match
- *routeClassValue*—Value of the source or destination route-class; in the range 0–255
- *local*—Specifies traffic destined for this interface
 - *true*—Matches packets that are locally destined
 - *false*—Matches packets that are not locally destined
- *ipv6Prefix*—Prefix that defines the IPv6 interface or network
- *ipv6Address*—Base IPv6 address of the network route
- *precNum*—Upper three bits of the traffic class byte; in the range 0–7
- *dsFieldNum*—Upper six bits of the traffic class byte; in the range 0–63
- *tcFieldNum*—Whole eight bits of the traffic class byte; in the range 0–255
- *protocol*—Protocol type to match; **tcp**, **udp**, **icmpv6**, or protocol number in the range 0–255

- *protocolQualifier*—Specifies the following protocol-specific parameters:
For TCP and UDP:
 - *source-port* or *destination-port*—Specifies that a source or destination port is matched
 - *portOperator*—One of the following classifier parameters. See *JUNOS Policy Management Configuration Guide, Chapter 2, Creating Classifier Control Lists for Policies*, for details.
 - *lt*—Less than
 - *gt*—Greater than
 - *eq*—Equal to
 - *ne*—Not equal
 - *range*—Range of port numbers
 - *portNumber*—Port number of the source or destination port
- For TCP only:
 - *tcpFlag*; a logic equation that specifies flag bit values; ! means logical NOT and & means logical AND; use any of the following flag names:
 - *ack*—0x10
 - *fin*—0x01
 - *psh*—0x08
 - *rst*—0x04
 - *syn*—0x02
 - *urg*—0x20
- For ICMPv6:
 - *icmpType*—ICMP message type
 - *icmpCode*—ICMP message code
- *classifierNumber*—Index of the classifier control list entry to be deleted



NOTE: The **local-input** keyword for the **ipv6 policy** command is deprecated, and may be completely removed in a future release. The keyword should be removed from scripts.

You should recreate any local input policies using the **ipv6 classifier-list local true** command and attaching the policies using the **ipv6 policy secondary-input** command.

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

Related Topics

- Creating or Modifying Classifier Control Lists for IPv6 Policy Lists

ipv6 description

Description	Assigns a text description or an alias to an IPv6 interface or subinterface. Use the show ipv6 interface command to display the text description. The no version removes the description or alias.
Syntax	<pre>ipv6 description <i>name</i> no ipv6 description</pre> <ul style="list-style-type: none"> ■ <i>name</i>—Name for the IP interface; string of up to 256 characters
Mode	Interface Configuration, Subinterface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 dhcpv6-local delegated-prefix

Description	Specifies the IPv6 prefix and lifetime that is to be delegated, when requested, to the DHCPv6 client on this interface by the DHCPv6 local server. This lifetime overrides the default lifetime that is set in Global Configuration mode. If no lifetime is specified, the default lifetime is used. The no version removes the IPv6 prefix from the interface.
Syntax	<pre>ipv6 dhcpv6-local delegated-prefix <i>ipv6Prefix</i> [lifetime { <i>days</i> [<i>hours</i> [<i>minutes</i> [<i>seconds</i>]]] infinite }] no ipv6 dhcpv6-local delegated-prefix</pre> <ul style="list-style-type: none"> ■ <i>ipv6Prefix</i>—Prefix that defines the IPv6 interface ■ <i>days</i>—Number of days in the lifetime; in the range 0–32768 ■ <i>hours</i>—Number of hours in the lifetime; in the range 0–24 ■ <i>minutes</i>—Number of minutes in the lifetime; in the range 0–60 ■ <i>seconds</i>—Number of seconds in the lifetime; in the range 0–60 ■ <i>infinite</i>—Assigns a lifetime that does not expire
Mode	Interface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 dhcpv6-local dns-domain-search

Description	Adds the specified DNS domain name to the domain search list. The no version removes the specified domain name from the search list.
Syntax	<pre>[no] ipv6 dhcpv6-local dns-domain-search <i>dnsDomainName</i></pre> <ul style="list-style-type: none"> ■ <i>dnsDomainName</i>—Name of DNS domain name
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 dhcpv6-local dns-server

Description Assigns the specified DNS server to all DHCPv6 clients in the current virtual router. The **no** version removes the specified DNS server.

Syntax [no] ipv6 dhcpv6-local dns-server *ipv6Address*

- *ipv6Address*—IPv6 address of the DNS server

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 dhcpv6-local prefix-lifetime

Description Sets the default lifetime for which a prefix delegated by this DHCPv6 local server is valid. This default is overridden by the interface-specific lifetime. The **no** version restores the default lifetime to 1 day.

Syntax ipv6 dhcpv6-local prefix-lifetime { *days* [*hours* [*minutes* [*seconds*]]] | infinite }
no ipv6 dhcpv6-local prefix-lifetime

- *days*—Number of days in the lifetime; in the range 0–32768
- *hours*—Number of hours in the lifetime; in the range 0–24
- *minutes*—Number of minutes in the lifetime; in the range 0–60
- *seconds*—Number of seconds in the lifetime; in the range 0–60
- infinite—Assigns a lifetime that does not expire

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 dos-protection-group

Description Attaches an IPv6 denial of service (DoS) protection group to an interface. The **no** version removes the attachment of the DoS protection group from the interface.

Syntax ipv6 dos-protection-group *groupName*
no ipv6 dos-protection-group

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

Mode Interface Configuration

Release Information Command introduced in JUNOS Release 8.1.0.

ipv6 enable

Description	Enables IPv6 processing on an interface that does not already have an explicit IPv6 address. The no version disables IPv6 processing on the interface.
Syntax	[no] ipv6 enable
Mode	Interface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 hop-limit

Description	Specifies the maximum number of hops that the router can use in router advertisements and all IPv6 packets. The no version sets the hop limit for IPv6 packets to 255 hops and router advertisements to zero [0] hops (or “unspecified”).
Syntax	ipv6 hop-limit [vrf <i>vrfName</i>] <i>hopLimit</i> no ipv6 hop-limit [vrf <i>vrfName</i>] <ul style="list-style-type: none"> ■ <i>vrfName</i>—Name of the VRF; string of 1–32 alphanumeric characters ■ <i>hopLimit</i>—Maximum number of hops (from 1 to 255) that the router can use in router advertisements and in all IPv6 packets; the original default value is 64 hops
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0. vrf keyword and <i>vrfName</i> variable added in JUNOS Release 7.2.0.

ipv6-local-interface

Description	Maps a domain name to a loopback interface. The no version deletes the mapping to the user domain name.
Syntax	ipv6-local-interface { loopback <i>interfaceSpecifier</i> <i>ipv6Prefix</i> } no ipv6-local-interface <ul style="list-style-type: none"> ■ <i>interfaceSpecifier</i>—Particular loopback interface ■ <i>ipv6Prefix</i>—Prefix that defines the IPv6 interface in the format <i>ipv6Address/length</i>, where <ul style="list-style-type: none"> ■ <i>ipv6Address</i>—Base IPv6 address of the loopback interface (for example, ::ffff:a:b:c:d) ■ <i>length</i>—Length of the network prefix; number of bits masking base address to produce address to be matched
Mode	Domain Map Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 mld

Description Enables MLD on an interface, and sets the MLD version to MLDv2. The **no** version disables MLD on an interface.

Syntax [no] ipv6 mld

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 mld access-group

Description Restricts hosts on this subnet to joining multicast groups on the specified IPv6 access list. The **no** version removes the association with the specified access list and allows hosts on the subnetwork to join any multicast group.

Syntax ipv6 mld access-group *accessListName*
no ipv6 mld access-group

- *accessListName*—Name of the access list; a string of up to 32 characters

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 mld access-source-group

Description Restricts hosts on this subnetwork to membership in those source groups (also known as “channels”) permitted by the specified IPv6 access list. The **no** version removes any access list restriction.

Syntax ipv6 mld access-source-group *accessListName*
no ipv6 mld access-source-group

- *accessListName*—Name of the access list; a string of up to 32 characters

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 mld apply-oif-map

Description Applies the specified outgoing interface (OIF) map to the current interface. The **no** version removes the outgoing interface map from the interface.

Syntax `ipv6 mld apply-oif-map mapName`
`no ipv6 mld apply-oif-map`

- *mapName*—Name of the OIF map

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 mld explicit-tracking

Description Enables explicit host tracking for IPv6 MLD interfaces. The **no** version disables explicit host tracking on the interface or with the **disable-if-mld-v1-detected** keyword reverts to the default explicit host tracking.

Syntax `[no] ipv6 mld explicit-tracking [disable-if-mld-v1-detected]`

- `disable-if-mld-v1-detected`—Disables explicit host tracking if MLD V1 hosts detected on MLD V2 interfaces

Mode Interface Configuration, Profile Configuration

Release Information Command introduced in JUNOS Release 8.2.0.

ipv6 mld group limit

Description Limits the number of MLD groups that an interface can accept. The **no** version restores the default situation, in which there is no limit to the number of MLD groups that the interface accepts.

Syntax `ipv6 mld group limit groupLimit`
`no ipv6 mld group limit`

- *groupLimit*—Maximum number of MLD groups that an interface can accept, in the range 0–64,000

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 mld immediate-leave

Description Removes an interface immediately when the router receives a leave group membership message from the host associated with this interface. The **no** version restores the default situation, in which the router issues query messages to multicast groups and removes an interface if the associated host does not return a group membership report within a certain length of time.



CAUTION: Issue this command only on MLDv1 interfaces to which one MLD client is connected. Do not issue this command to interfaces to which more than one MLD client is connected.

Syntax [no] ipv6 mld immediate-leave

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 mld last-member-query-interval

Description Specifies in tenths of a second the maximum time the router waits for a response after sending a last member query. The router sends a last member query when it receives an MLDv1 leave message or an MLDv2 state change report. The **no** version restores the default value, 10 tenths of a second (1 second).

Syntax ipv6 mld last-member-query-interval *tenthsOfaSecond*
no ipv6 mld last-member-query-interval

- *tenthsOfaSecond*—Time interval to wait after sending out of a last member query in the range 1–254 tenths of a second. Using a lower value allows members to leave groups more quickly.

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 mld oif-map

Description	Creates an outgoing interface (OIF) map. The no version removes an outgoing interface map attribute or the entire outgoing interface map.
Syntax	<pre>[no] ipv6 mld oif-map mapName { interfaceType interfaceSpecifier self } [groupPrefix [sourcePrefix]]</pre> <ul style="list-style-type: none"> ■ <i>mapName</i>—Name of the OIF map ■ <i>interfaceType</i>—Interface type; see <i>Interface Types and Specifiers</i> in <i>About This Guide</i> ■ <i>interfaceSpecifier</i>—Particular interface; format varies according to interface type; see <i>Interface Types and Specifiers</i> in <i>About This Guide</i> ■ <i>self</i>—Specifies that the multicast outgoing interface is the same as IGMP join interface ■ <i>groupPrefix</i>—Group prefix in the form <i>ipv6Address/maskLength</i> ■ <i>sourcePrefix</i>—Source prefix in the form <i>ipv6Address/maskLength</i>
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 mld-proxy

Description	Enables MLD proxy on an interface and specifies the version. Version 2 is enabled by default. The no version disables MLD proxy for an interface.
Syntax	<pre>[no] ipv6 mld-proxy</pre>
Mode	Interface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 mld-proxy unsolicited-report-interval

Description Specifies how often the upstream interface should transmit unsolicited reports. This command has no effect on interfaces other than the upstream value. The **no** version transmits unsolicited reports using the default value, 100-tenths of a second (10 seconds).



NOTE: Issue this command only on the upstream interface. Otherwise, this command will have no effect.

Syntax `ipv6 mld-proxy unsolicited-report-interval tenths-of-a-seconds`
`no ipv6 mld-proxy unsolicited-report-interval`

- *tenths-of-a-seconds*—Time interval at which the interface transmits unsolicited reports

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 mld-proxy version

Description Sets the MLD proxy version for the interface. The **no** version restores the default value, MLDv2.

Syntax `ipv6 mld-proxy version { 1 | 2 }`
`no ipv6 mld-proxy version`

- 1—Sets MLD version 1
- 2—Sets MLD version 2

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 mld querier-timeout

Description Sets the time that the interface waits before declaring itself as the querier. The **no** version restores the default value, twice the query interval.

Syntax `ipv6 mld querier-timeout seconds`
`no ipv6 mld querier-timeout`

- *seconds*—Time interval between the last query from the previous router and the first query from this interface

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 mld query-interval

Description Sets how often the router sends MLD host-query packets from this interface. The **no** version restores the default value, 125 seconds.

Syntax `ipv6 mld query-interval seconds`
`no ipv6 mld query-interval`

- *seconds*—Polling interval in the range 0–65535 seconds

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 mld query-max-response-time

Description Specifies the period in tenths of a second during which the host is expected to respond to an MLD query. MLD version 1 includes this value in MLD query messages sent out on the interface. The **no** version restores the default value, 10 tenths of a second (1 second).

Syntax `ipv6 mld query-max-response-time tenthsOfaSecond`
`no ipv6 mld query-max-response-time`

- *tenthsOfaSecond*—Time interval between receipt of an MLD query and the response; in the range 1–254 tenths of a second.

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 mld robustness

Description Specifies the number of times that the router sends MLD group-specific queries before declaring a group to no longer have any members on an interface. The **no** version restores the default value, 2.

Syntax `ipv6 mld robustness numberOfMessages`
`no ipv6 mld robustness`

- *numberOfMessages*—Number of times that the router sends MLD group-specific queries in the range 1–4

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 mld ssm-map enable

Description Enables SSM mapping on the router. SSM mapping statically assigns sources to MLDv1 groups. You must use SSM mapping for MLDv1 hosts to interoperate with PIM SSM. SSM mapping allows the router to use a statically configured list to translate <*,G> memberships to <S,G> memberships. The **no** version disables the SSM map.



NOTE: To operate correctly, the static source addresses configured with the **ipv6 mld ssm-map static** command must fall within the configured PIM SSM range.

Syntax [no] ipv6 mld ssm-map enable

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 mld ssm-map static

Description Specifies an access list and source address for use in SSM mapping. SSM mapping statically assigns sources to MLDv1 groups. You must use SSM mapping for MLDv1 hosts to interoperate with PIM SSM. SSM mapping allows the router to use a statically configured list to translate <*,G> memberships to <S,G> memberships. The **no** version removes the SSM map association.



NOTE: To operate correctly, the static source addresses configured with the **ipv6 mld ssm-map static** command must fall within the configured PIM SSM range.

Syntax [no] ipv6 mld ssm-map static *accessListName* *sourceAddress*

- *accessListName*—Name of the access control list
- *sourceAddress*—Address of the source

Mode Privileged Exec, User Exec

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 mld static-exclude

Description Specifies that an interface not handle multicast traffic for one or more (S,G) combinations. The **no** version removes the (S,G) exclusion from the interface.

Syntax [no] ipv6 mld static-exclude *sourceAddress* *groupAddress*

- *sourceAddress*—Address of the source
- *groupAddress*—Address of the group

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 mld static-group

Description Assigns an interface to handle all multicast traffic for a group. The interface sets no timers for this group. The **no** version removes the group from the interface.

Syntax [no] ipv6 mld static-group *groupAddress*

- *groupAddress*—Address of the group

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 mld static-include

Description Assigns an interface to handle multicast traffic for one or more (S,G) combinations. The **no** version removes the (S,G) association from the interface.

Syntax [no] ipv6 mld static-include *sourceAddress groupAddress*

- *sourceAddress*—Address of the source
- *groupAddress*—Address of the group

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 mld version

Description Sets the MLD version for the interface. The **no** version restores the default value, MLDv1.

Syntax ipv6 mld version { 1 | 2 | passive }

no ipv6 mld version

- 1—Sets MLD version 1
- 2—Sets MLD version 2
- passive—Configures a mapped OIF as a passive interface with only multicast-data-forwarding capability

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 mtu

- Description** Sets the maximum transmission unit size of IPv6 packets sent on an interface. The **no** version restores the default value.
- Syntax** `ipv6 mtu [mtuSize]`
`no ipv6 mtu`
- *mtuSize*—Maximum number of packet transmissions permitted on an interface; in the range 160–10240; default value is 0, which means that the router takes the value from a lower protocol layer
- Mode** Interface Configuration, Profile Configuration, Subinterface Configuration
- Release Information** Command introduced before JUNOS Release 7.1.0.

ipv6 multicast admission-bandwidth-limit

- Description** Specifies multicast admission bandwidth (in kilobits per second) for a given interface. The **no** version removes the admission bandwidth limit.
- Syntax** `[no] ipv6 multicast admission-bandwidth-limit limitValue`
- *limitValue*—Maximum admission bandwidth (in kilobits per second) permitted on an interface; default value is 0, which disables the limit
- Mode** Interface Configuration, Profile Configuration
- Release Information** Command introduced in JUNOS Release 7.1.0.

ipv6 multicast ioa-packet-replication

- Description** Enables IPv6 hardware multicast packet replication on port 8 of a high-density Ethernet I/O module or IOA. The **no** version disables hardware multicast packet replication.
- Syntax** `ipv6 multicast ioa-packet-replication interfaceType interfaceSpecifier`
`no ipv6 multicast ioa-packet-replication`
- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
 - *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*
- Mode** Interface Configuration
- Release Information** Command introduced in JUNOS Release 7.3.0.

ipv6 multicast-routing

Description	Enables IPv6 multicast routing on the router. The no version disables IPv6 multicast routing on the router.
Syntax	[no] ipv6 multicast-routing
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 multicast-routing bandwidth-map

Description	Enables the QoS adjust function on the router. The no version disables the QoS adjust function on the router.
Syntax	ipv6 multicast-routing bandwidth-map <i>routeMapName</i> no ipv6 multicast-routing bandwidth-map ■ <i>routeMapName</i> —Name of the route map you want to use for the bandwidth map
Mode	Global Configuration
Release Information	Command introduced in JUNOS Release 7.1.0.

ipv6 multicast-routing disable-rpf-check

Description	Disables RPF checks for the (S,G) pairs in the specified access list. The no version restores the default situation, in which the router performs RPF checks for all (S,G) pairs.
Syntax	ipv6 multicast-routing disable-rpf-check <i>accessListName</i> no ipv6 multicast-routing disable-rpf-check ■ <i>accessListName</i> —Name of the IPv6 access list that specifies the (S,G) pairs
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 multicast-routing permanent-mroute

Description Specifies that newly created mroutes that match the specified access-list do not get timed out. The **no** version of this command prevents any new mroutes from becoming permanent. However, it does not remove any existing permanent mroutes. To remove existing permanent mroutes, use the **clear ipv6 mroute** command.

Syntax `ipv6 multicast-routing permanent-mroute accessListName`
`no ipv6 multicast-routing permanent-mroute`

- *accessListName*—Name of the IPv6 access list that specifies the mroutes

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 nd

Description Enables the IPv6 Neighbor Discovery process on an interface. The **no** version disables the Neighbor Discovery process.

Syntax `[no] ipv6 nd`

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.
Profile Configuration mode added in JUNOS Release 9.0.0.

ipv6 nd active-solicitations

Description Specifies that the router can actively solicit neighbors that become stale (inactive). The **no** version disables the ability to actively solicit neighbors that become stale.

Syntax `[no] ipv6 nd active-solicitations`

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 nd dad attempts

Description Specifies the number of consecutive neighbor solicitation messages that an interface sends while the router performs duplicate address detection (DAD) on the unicast IPv6 addresses of the interface. The **no** version returns the number of neighbor solicitation messages to its default value (one message without any follow-up messages).

Syntax `ipv6 nd dad attempts numberOfAttempts`
`no ipv6 nd dad attempts`

- *numberOfAttempts*—Number of neighbor solicitation messages that you want the router to transmit

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 nd managed-config-flag

Description Sets the “managed address configuration” flag in IPv6 router advertisements. The **no** version clears the flag from IPv6 router advertisements.

Syntax `[no] ipv6 nd managed-config-flag`

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.
 Profile Configuration mode added in JUNOS Release 9.0.0.

ipv6 nd ns-interval

Description Specifies the interval between IPv6 neighbor solicitation retransmissions on an interface. The **no** version returns the interval between neighbor solicitation retransmission to its default value (zero [0] milliseconds for router advertisements and 1000 milliseconds for Neighbor Discovery activity of the E-series router).

Syntax `ipv6 nd ns-interval milliseconds`
`no ipv6 nd ns-interval`

- *milliseconds*—Interval between IPv6 neighbor solicit transmissions


Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 nd other-config-flag

Description	Sets the “other stateful configuration” flag in IPv6 router advertisements. The no version clears the flag from IPv6 router advertisements.
Syntax	[no] ipv6 nd other-config-flag
Mode	Interface Configuration, Profile Configuration
Release Information	Command introduced before JUNOS Release 7.1.0. Profile Configuration mode added in JUNOS Release 9.0.0.

ipv6 nd prefix-advertisement

Description	Specifies which IPv6 prefixes the router includes in IPv6 router advertisements. In Profile Configuration mode, you can configure a single prefix. The no version removes any prefixes from the IPv6 routing advertisements.
Syntax	<pre>ipv6 nd prefix-advertisement <i>ipv6Prefix/ipv6PrefixLength</i> <i>validLifetime</i> <i>preferredLifetime</i> [onlink] [autoconfig] [no] ipv6 nd prefix-advertisement [<i>ipv6Prefix/ipv6PrefixLength</i>]</pre> <ul style="list-style-type: none">■ <i>ipv6Prefix</i>—IPv6 network number to include in router advertisements■ <i>ipv6PrefixLength</i>—Length of the IPv6 prefix; a decimal value that indicates how many of the higher-order contiguous bits of the IPv6 address comprise the prefix (the network portion of the IPv6 address). A slash (/) must precede this value.
 NOTE:	When used in an IPv6 profile, the <i>ipv6PrefixLength</i> must be set to a length of 64.
	<ul style="list-style-type: none">■ <i>validLifetime</i>—Amount of time in seconds that the router can advertise the specified IPv6 prefix as valid; in the range 0–4294967295■ <i>preferredLifetime</i>—Amount of time in seconds that the router can advertise the specified IPv6 prefix as preferred; in the range 0–4294967295■ <i>onlink</i>—Indicates that the specified prefix is assigned to the link■ <i>autoconfig</i>—Indicates that local host links can use the specified prefix for IPv6 autoconfiguration
Mode	Interface Configuration, Profile Configuration
Release Information	Command introduced before JUNOS Release 7.1.0. Profile Configuration mode added in JUNOS Release 9.0.0.

ipv6 nd proxy

Description	Enables IPv6 Neighbor Discovery proxy. The no version disables IPv6 Neighbor Discovery proxy.
Syntax	[no] ipv6 nd proxy
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 nd ra-interval

Description	Specifies the interval between IPv6 router advertisement retransmissions on an interface. The no version restores the default interval, 200 seconds.
Syntax	ipv6 nd ra-interval <i>seconds</i> no ipv6 nd ra-interval <ul style="list-style-type: none"> ■ <i>seconds</i>—Number of seconds between IPv6 advertisement retransmissions; in the range 3–1800
Mode	Interface Configuration, Profile Configuration
Release Information	Command introduced before JUNOS Release 7.1.0. Profile Configuration mode added in JUNOS Release 9.0.0.

ipv6 nd ra-lifetime

Description	Specifies the router lifetime value in IPv6 router advertisements on an interface. The router lifetime value is the amount of time the router is considered the default router on this interface. The no version restores the default router lifetime value, 1800 seconds.
Syntax	ipv6 nd ra-lifetime <i>seconds</i> no ipv6 nd ra-lifetime <ul style="list-style-type: none"> ■ <i>seconds</i>—Number of seconds this router is considered the default router on this interface; in the range 0–1800. A value of zero (0) indicates that this router is not a default router on this interface. Nonzero values indicate that the router is a default router on this interface. Nonzero values should not be less than the router advertisement interval.
Mode	Interface Configuration, Profile Configuration
Release Information	Command introduced before JUNOS Release 7.1.0. Profile Configuration mode added in JUNOS Release 9.0.0.

ipv6 nd reachable-time

Description Specifies the amount of time that the E-series router can reach a remote IPv6 node after some reachability confirmation event has occurred. The **no** version restores the default value 0 milliseconds for router advertisements and 3,600,000 milliseconds (1 hour) for Neighbor Discovery activity of the E-series router.

Syntax `ipv6 nd reachable-time { milliseconds | hours minutes seconds }`
`no ipv6 nd reachable-time`

- *milliseconds*—Amount of time, in the range 0–21600000 milliseconds, that the E-series router can reach a remote node after some reachability confirmation event has occurred
- *hours minutes seconds*—Amount of time, in the range 0 hours 0 minutes 0 seconds – 6 hours 0 minutes 0 seconds, that the E-series router can reach a remote node after some reachability confirmation event has occurred; this specification is not supported in Profile Configuration mode

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.
Profile Configuration mode added in JUNOS Release 9.0.0.

ipv6 nd suppress-ra

Description Suppresses IPv6 router advertisement transmissions on a local area network (Ethernet) interface. The **no** version reenables the sending of IPv6 router advertisement transmissions on the LAN (Ethernet) interface.

Syntax `[no] ipv6 nd suppress-ra`

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.
Profile Configuration mode added in JUNOS Release 9.0.0.

ipv6 nd suppress-ra-source-link-layer

Description Suppresses the source link-layer option in IPv6 router advertisement transmissions. This action forces neighbors to solicit the router link layer explicitly, and may prove necessary when enabling inbound load sharing across multiple link-layer addresses. The **no** version reenables the sending of the source link-layer option in IPv6 router advertisement transmissions.

Syntax `[no] ipv6 nd suppress-ra-source-link-layer`

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 neighbor

Description	Specifies a static entry in the IPv6 Neighbor Discovery cache. The no version removes the static entry from the IPv6 Neighbor Discovery cache.
Syntax	<pre>ipv6 neighbor [vrf vrfName] ipv6Address interfaceType interfaceSpecifier hardwareAddress</pre> <pre>no ipv6 neighbor [vrf vrfName] ipv6Address interfaceType interfaceSpecifier</pre> <ul style="list-style-type: none"> ■ <i>vrfName</i>—Name of the VRF; string of 1–32 alphanumeric characters ■ <i>ipv6Address</i>—IPv6 address that corresponds to the local data-link address ■ <i>interfaceType</i>—Interface type; see <i>Interface Types and Specifiers</i> in <i>About This Guide</i> ■ <i>interfaceSpecifier</i>—Particular interface; format varies according to interface type; see <i>Interface Types and Specifiers</i> in <i>About This Guide</i> ■ <i>hardwareAddress</i>—Local, 48-bit data-link address
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0. vrf keyword and <i>vrfName</i> variable added in JUNOS Release 7.2.0.

ipv6 ospf area

Description	Creates an OSPFv3 interface under the specified area ID or moves an OSPFv3 interface from its current area to a specified area. The no version removes the interface from the specified area.
Syntax	<pre>[no] ip ospf [processId] area { areaId areaIdInt }</pre> <ul style="list-style-type: none"> ■ <i>processId</i>—Integer in the range 1–65535 ■ <i>areaId</i>—OSPF area ID in IP address format ■ <i>areaIdInt</i>—OSPF area ID as a decimal value 0–4294967295
Mode	Interface Configuration, Subinterface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 ospf bfd-liveness-detection

Description	Enables BFD (bidirectional forwarding detection) on an interface running OSPFv3 and defines BFD values to be negotiated between OSPFv3 neighbors for detection of IPv6 data path failures. The no version disables BFD on the OSPFv3 interface.
Syntax	<pre>ipv6 ospf bfd-liveness-detection [minimum-interval <i>minInterval</i> [minimum-receive-interval <i>minRecInterval</i>] [minimum-transmit-interval <i>minTransInterval</i>]] [multiplier <i>multValue</i>] no ipv6 ospf bfd-liveness-detection</pre> <ul style="list-style-type: none">■ <i>minInterval</i>—Minimum proposed transmit interval and required receive interval for BFD control packets; number in the range 100–65535 milliseconds; default value is 300 milliseconds■ <i>minRecInterval</i>—Minimum interval at which the local peer must receive BFD control packets sent by the remote peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds■ <i>minTransInterval</i>—Minimum proposed interval between BFD control packets sent by the local peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds■ <i>multValue</i>—Detection multiplier value that the remote peer router multiplies by the local peer's negotiated transmit interval to determine the remote peer's BFD liveness detection interval; equal to the number of BFD packets that can be missed before the BFD session is declared down; number in the range 1–255; default value is 3
Mode	Interface Configuration, Subinterface Configuration
Release Information	Command introduced in JUNOS Release 7.1.0.

ipv6 ospf cost

Description	Specifies a cost metric for an interface. Used in the calculation of the SPF routing table. The no version resets the path cost to the default.
Syntax	<pre>ipv6 ospf [<i>processId</i>] cost <i>intfCost</i> no ipv6 ospf [<i>processId</i>] cost</pre> <ul style="list-style-type: none">■ <i>processId</i>—Integer in the range 1–65535■ <i>intfCost</i>—Link-state metric cost; number in the range 0–65535; default value is 10
Mode	Interface Configuration, Subinterface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 ospf dead-interval

Description Sets the time period during which the router's neighbors do not see hello packets before they declare the router to be down. The **no** version resets the dead interval to its default.

Syntax `ipv6 ospf [processId] dead-interval deadInterval`
`no ipv6 ospf [processId] dead-interval`

- *processId*—Integer in the range 1–65535
- *deadInterval*—Number in the range 0–2147483647 seconds; default value is 40 seconds

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 ospf hello-interval

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

Syntax `ipv6 ospf [processId] hello-interval helloInterval`
`no ipv6 ospf [processId] hello-interval`

- *processId*—Integer in the range 1–65535
- *helloInterval*—Number in the range 1–65535 seconds; default value is 10 seconds

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 ospf mtu-ignore

Description Specifies that the interface ignore the MTU size contained in the DBD packet. The interface accepts data description packets from its neighbor even if it has a different a MTU size. However, the MTU size must be less than 18000. The **no** version resets the default; that the neighbor MTU size must match the MTU size of the OSPFv3 interface from which the packet is received.

Syntax `[no] ipv6 ospf [processId] mtu-ignore`

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

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 ospf network

Description	Specifies a network type (broadcast or point-to-point) for an interface. The no version resets the path cost to the default.
Syntax	<pre>ipv6 ospf [<i>processId</i>] network { broadcast point-to-point } no ipv6 ospf [<i>processId</i>] network</pre> <ul style="list-style-type: none">■ <i>processId</i>—Integer in the range 1–65535
Mode	Interface Configuration, Subinterface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 ospf priority

Description	Sets the router priority. Used in determining the designated router for the particular network. This designation applies only to multiaccess networks. Every broadcast and nonbroadcast multiaccess network has a designated router. The no version restores the default value.
Syntax	<pre>ipv6 ospf [<i>processId</i>] priority <i>intfPriority</i> no ipv6 ospf [<i>processId</i>] priority</pre> <ul style="list-style-type: none">■ <i>processId</i>—Integer in the range 1–65535■ <i>intfPriority</i>—Priority value, an 8-bit number in the range 1–255; default value is 1
Mode	Interface Configuration, Subinterface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 ospf retransmit-interval

Description	Specifies the time between LSA retransmissions for the interface when an acknowledgment for the LSA is not received. The no version restores the default value.
Syntax	<pre>ipv6 ospf [<i>processId</i>] retransmit-interval <i>retransInterval</i> no ipv6 ospf [<i>processId</i>] retransmit-interval</pre> <ul style="list-style-type: none">■ <i>processId</i>—Integer in the range 1–65535■ <i>retransInterval</i>—Number in the range 0–3600 seconds; default value is 5 seconds
Mode	Interface Configuration, Subinterface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 ospf shutdown

Description Disables OSPF on an interface. The **no** version enables OSPF on the interface.

Syntax [no] ipv6 [*processId*] ospf shutdown

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

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 ospf transmit-delay

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

Syntax ipv6 ospf [*processId*] transmit-delay *transmDelay*
no ipv6 ospf [*processId*] transmit-delay

- *processId*—Integer in the range 1–65535
- *transmDelay*—Link-state transmit delay, a number in the range 0–3600 seconds; default value is 1 second

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 pim bfd-liveness-detection

Description Enables BFD (bidirectional forwarding detection) on an interface running PIM and defines BFD values to be negotiated between PIM neighbors for detection of IPv6 data path failures. The **no** version disables BFD on the PIM interface.

Syntax `ipv6 pim bfd-liveness-detection [minimum-interval minInterval |
[minimum-receive-interval minRecInterval]
[minimum-transmit-interval minTransInterval]] [multiplier multValue]`

`no ipv6 pim bfd-liveness-detection`

- *minInterval*—Minimum proposed transmit interval and required receive interval for BFD control packets; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minRecInterval*—Minimum interval at which the local router must receive BFD control packets sent by its neighbors; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minTransInterval*—Minimum proposed interval between BFD control packets sent by the local router; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *multValue*—Detection multiplier value that the remote neighbor multiplies by the local router's negotiated transmit interval to determine the remote neighbor's BFD liveness detection interval; equal to the number of BFD packets that can be missed before the BFD session is declared down; number in the range 1–255; default value is 3

Mode Interface Configuration

Release Information Command introduced in JUNOS Release 8.0.0.

ipv6 pim bsr-candidate

Description Defines a router as a bootstrap router (BSR) candidate. The **no** version disables the router BSR candidacy.

Syntax `ipv6 pim bsr-candidate interfaceType interfaceSpecifier
[hashMaskLen [priority]] [period bootstrapPeriod]`
`no ipv6 pim bsr-candidate`

- *interfaceType*—Interface type; see *Interface Types and Specifiers* in *About This Guide*
- *interfaceSpecifier*—Particular interface; format varies according to interface type; see *Interface Types and Specifiers* in *About This Guide*. The autoRP announcement messages will contain the IP address for this interface.
- *hashMaskLen*—Length in the range 1–128 bits of the hash mask length field sent in BSMs that the router originates; default value is 126 bits
- *priority*—Value in the range 0–255 of the BSR-Priority field of BSMs that the router originates; default value is 0
- *bootstrapPeriod*—Interval in the range 1–65535 seconds at which the BSR sends bootstrap messages; default value is 60 seconds

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 pim join-filter

Description Specifies an extended access list that you want this PIM router or PIM interface to use as a join filter. If an interface-level filter exists, it takes precedence over the global-level filter. The **no** version removes the filter association.

Syntax `ipv6 pim join-filter accessListName`
`no ipv6 pim join-filter`

- *accessListName*—Name of the access list that you want this interface to use as a PIM join filter; a string of up to 32 alphanumeric characters

Mode Global Configuration, Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 pim query-interval

Description Specifies how often the router sends PIM router query messages from this interface. The **no** version specifies the default time interval, 30 seconds.

Syntax `ipv6 pim query-interval queryTime`
`no ipv6 pim query-interval`

- *queryTime*—Interval in the range 0–210 seconds at which the router sends PIM router query messages from this interface

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 pim rp-address

Description Specifies a static PIM group-to-RP mapping. The **no** version clears the mapping from this interface.

Syntax `[no] ipv6 pim rp-address ipv6Address [ipv6AccessList] [override]`

- *ipv6Address*—IPv6 address of the router you want to designate as an RP router
- *ipv6AccessList*—Name of the IPv6 access list that specifies which multicast groups use this RP
- *override*—Specifies that this static RP mapping has priority over group-to-RP mappings learned by auto-RP

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 pim rp-candidate

Description	Defines a router as a rendezvous point (RP) router candidate. The no version stops the router from being an RP candidate.
Syntax	<pre>ipv6 pim rp-candidate <i>interfaceType</i> <i>interfaceSpecifier</i> [<i>group-list</i> <i>accessListName</i>] [<i>hold-time</i> <i>holdTime</i>] [<i>priority</i> <i>priority</i>] [<i>interval</i> <i>interval</i>]</pre> <pre>no ipv6 pim rp-candidate <i>interfaceType</i> <i>interfaceSpecifier</i> [<i>group-list</i> <i>accessListName</i>]</pre> <ul style="list-style-type: none"> ■ <i>interfaceType</i>—Interface type; see <i>Interface Types and Specifiers</i> in <i>About This Guide</i> ■ <i>interfaceSpecifier</i>—Particular interface; format varies according to interface type; see <i>Interface Types and Specifiers</i> in <i>About This Guide</i>. The autoRP announcement messages will contain the IP address for this interface. ■ <i>accessListName</i>—Access-list containing the set of group prefixes supported by this C-RP. If no group-list is specified, the default value is the entire multicast address range. ■ <i>holdTime</i>—Amount of time in the range 1–65535 seconds that the BSR keeps an RP in its C-RP list if the BSR does not receive a C-RP advertisement message; default value is 150 seconds ■ <i>priority</i>—Priority field value in the range 0–255 that the C-RP sends to the BSR in C-RP advertisement messages; default value is 192. In the RP election process, the RP with the lower priority value is preferred. ■ <i>interval</i>—Interval in the range 1–65535 seconds at which the C-RP sends advertisement messages to the BSR; default value is 60 seconds
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 pim sparse-mode

Description	Enables PIM in sparse mode on an interface. The no version disables PIM in sparse mode on an interface.
Syntax	<pre>[no] ipv6 pim sparse-mode</pre>
Mode	Interface Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 pim spt-threshold

Description Specifies the network configuration that PIM sparse mode uses when a source starts sending multicast messages. The **no** version restores the default value, 0.

Syntax [no] ipv6 pim spt-threshold { 0 | *nonZeroInteger* | infinity } [group-list *ipv6AccessList*]

- 0—Configures PIM sparse mode to switch to an SPT when a source begins to send multicast messages
- *nonZeroInteger*—Integer in the range 1–4294967294; prevents PIM sparse mode from switching from a shared tree to an SPT
- infinity—Prevents PIM sparse mode from switching from a shared tree to an SPT
- *ipv6AccessList*—Name of the IPv6 access list that specifies the groups to which the threshold applies

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 pim ssm

Description Enables SSM and defines the SSM range of IPv6 multicast addresses. The **no** version disables SSM on the router.

Syntax ipv6 pim ssm { default | range *ipv6AccessList* }

no ipv6 pim ssm

- default—Specifies that SSM use the IANA-specified range of 232/8
- *ipv6AccessList*—Name of the IPv6 access list that specifies the range of multicast addresses you want SSM to use

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 policy

Description In Interface Configuration mode, assigns a policy list to the ingress or egress of an interface. If you enter the **ipv6 policy** command and the policy list does not exist, the router creates a policy list with no rules, the default. When a policy list does not have rules, the router inserts a default filter rule. Attaching this policy list to an interface filters all packets on that interface. You must specify the **input** or **output** keyword to assign the policy list to the ingress or egress of the interface.

In Profile Configuration mode, assigns the policy list to a profile, which then assigns the policy to an interface.

The **no** version removes the association between a policy list and an interface. In Profile Configuration mode, the **no** version removes policy reference from the profile.

Syntax `ipv6 policy { input | output } policyName
[statistics { enabled [baseline { enabled | disabled }] [preserve | merge] |
disabled [merge] }] merge]`

`no ipv6 policy { input | output | secondary-input } [policyName]`

For policy lists in Profile Configuration mode:

`ipv6 policy { input | output } policyName
[statistics { enabled | disabled }] [merge]`

`no ipv6 policy { input | output | secondary-input } [policyName]`

- **input**—Applies policy to data arriving at this interface before a route lookup
- **output**—Applies policy to data leaving this interface
- **secondary-input**—Applies policy to data that arrives at this interface after a route lookup
- ***policyName***—Name of the policy; a maximum of 40 characters
- **statistics**—Enables or disables collection of policy routing statistics
 - **enabled**—Enable collection of policy routing statistics
 - **baseline enabled**—Enables baselining of policy routing statistics (Interface Configuration mode only)
 - **baseline disabled**—Disables baselining of policy routing statistics (Interface Configuration mode only)

- **preserve**—Preserves existing statistics for any classifier-list that is the same for both the new and old policy attachments when you attach a new policy to an interface
- **disabled**—Disable collection of policy routing statistics
- **merge**—Enables merging of multiple policies to form a single policy



NOTE: The **local-input** keyword for the **ipv6 policy** command is deprecated, and may be completely removed in a future release. The keyword should be removed from scripts.

You should recreate any local input policies using the **ipv6 classifier-list local true** command and attaching the policies using the **ipv6 policy secondary-input** command.

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.
merge keyword added in JUNOS Release 7.2.0.
 Profile Configuration mode added in JUNOS Release 7.2.0.

Related Topics

- Setting a Statistics Baseline

ipv6 policy-list

Description Creates or modifies an IPv6 policy list. If you execute an **ipv6 policy-list** command and type **exit**, the router creates a policy list with no rules, the default. When a policy list does not have rules, the router inserts a default filter rule. Attaching this policy list to an interface filters all packets on that interface. The **no** version removes a policy list.

Syntax [no] ipv6 policy-list *policyName*

- *policyName*—Name of the policy list

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

Related Topics

- Creating Policy Lists for IPv6

ipv6 policy-parameter hierarchical

Description Specifies a parameter value for IPv6 interfaces. The **no** version removes the policy parameter and its contents.

Syntax `ipv6 policy-parameter hierarchical parameterName { nodeValue | atm | atm-vc | atm-vp
vpValue | ethernet | fr-vc | forwarding | svlan svlanValue | vlan }`

`no policy-parameter parameterName`

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

Mode Interface Configuration

Release Information Command introduced in JUNOS Release 8.0.0.

Related Topics

- Creating a Classifier Group for a Policy List

ipv6 policy-parameter reference-rate

Description Creates an IPv6 policy parameter for a reference rate; creates a global parameter if it does not exist. The **no** version removes the policy parameter and its contents; if used with the **increase** keyword, decreases the value.

Syntax In Interface Configuration mode:

`ipv6 policy-parameter reference-rate parameterName [increase] value`

`no ipv6 policy-parameter reference-rate parameterName [increase value]`

In Profile Configuration mode:

`ipv6 policy-parameter reference-rate parameterName [increase] value`

`no ipv6 policy-parameter reference-rate parameterName`

- *parameterName*—Name of policy parameter up to 40 characters
- increase—Increments the existing reference rate value
- *value*—Value of the reference rate parameter, in the range 0–4292967295

Mode Interface Configuration, Profile Configuration

Release Information Command introduced in JUNOS Release 8.1.0.

Related Topics

- Creating a Classifier Group for a Policy List

ipv6 prefix-list

Description Creates an IPv6 prefix list for route filtering; specifies a list entry—a permit or deny clause for a network address. The **no** version removes the specified prefix list or the specified list entry.

Syntax `ipv6 prefix-list listName { description desc | { [seq sequence] { permit | deny } ipv6Prefix [ge geNumber] [le leNumber] } }`

`no ipv6 prefix-list listName [description | [seq sequence] [{ permit | deny } ipv6Prefix [ge geNumber] [le leNumber]]]`

- *listName*—Name of the IPv6 prefix list; a string of up to 32 characters
- *desc*—Description of the prefix list
- *sequence*—Number in the range 0–65535 that indicates the position the prefix list entry has in the already existing list of entries for the prefix list; if you do not specify a *sequence*, the command uses the value of the last sequence number + 5
- *permit*—When specified, the router redistributes any prefix that matches the filtered route based on the set actions
- *deny*—When specified, the router drops any prefix that matches the filtered route
- *ipv6Prefix*—Network route that you want to filter, in the format *ipv6Address/length*, where
 - *ipv6Address*—Base IPv6 address of the network route that you want to filter (for example, ::ffff:a:b:c:d)
 - *length*—Length of the network prefix; number of bits masking base address to produce address to be matched
- *geNumber*—Route being filtered matches if its prefix is within the range specified: greater than or equal to *geNumber* and less than or equal to 32
- *leNumber*—Route being filtered matches if its prefix is within the range specified: greater than or equal to *length* and less than or equal to *leNumber*

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 route

Description	Configures a static IPv6 prefix route. The no version removes a static IPv6 prefix route.
Syntax	<pre>ipv6 route [vrf vrfName] prefix { nextHop interfaceType interfaceSpecifier } [distance]</pre> <pre>no ipv6 route [vrf vrfName] prefix [nextHop interfaceType interfaceSpecifier] [distance]</pre> <ul style="list-style-type: none"> ■ <i>vrfName</i>—Name of the VRF; string of 1–32 alphanumeric characters ■ <i>prefix</i>—Combination of both a prefix and prefix length (mask) value. The prefix (IP address or network) defines the IPv6 interface or network. The prefix (mask) length of the IPv6 prefix is a decimal value that indicates how many of the high-order contiguous bits of the address comprise the prefix (the network portion of the address). A slash mark must precede the decimal value. An example of a prefix would be “7fff::0/16”, “7fff::0/32”, “7fff:2:3::0/24”, or “7fff::1/128”. ■ <i>nextHop</i>—IPv6 address of the next-hop to reach the destination prefix (network). The next-hop address need not be directly connected; recursion locates the physical next-hop. ■ <i>interfaceType</i>—Interface type; see <i>Interface Types and Specifiers</i> in <i>About This Guide</i> ■ <i>interfaceSpecifier</i>—Particular interface; format varies according to interface type; see <i>Interface Types and Specifiers</i> in <i>About This Guide</i> ■ <i>distance</i>—Preference value for the IPv6 route. A default value of 1 gives static routes precedence over any other type of route (with the exception of connected routes).
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0. vrf keyword and <i>vrfName</i> variable added in JUNOS Release 7.2.0.

ipv6 router isis

Description	Enables the IS-IS routing protocol on an interface and specifies an IS-IS process for IPv6. The no version disables IS-IS routing.
Syntax	<pre>[no] ipv6 router isis [tag]</pre> <ul style="list-style-type: none"> ■ <i>tag</i>—Meaningful name for a routing process; name must be unique among all IP router processes for a given router; if not specified, a null tag is assumed, and the process is referenced with a null tag
Mode	Interface Configuration
Release Information	Command introduced in JUNOS Release 8.2.0.

ipv6 router mld

Description Creates and enables MLD on a virtual router; accesses MLD router configuration mode. The **no** version disables MLD on a virtual router.



NOTE: This command is identical to the **router mld** command.

Syntax [no] ipv6 router mld

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6-router-name

Description Maps a user domain name to an IPv6 virtual router. The **no** version deletes the router name parameter, and the router defaults to the default virtual router.

Syntax ipv6-router-name *vrName*
no ipv6-router-name [*vrName*]

- *vrName*—Name of the virtual router; a string of 1–15 alphanumeric characters

Mode Domain Map Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 router ospf

Description Configures an IPv6 OSPF routing process. The **no** version disables an IPv6 OSPF routing process.

Syntax [no] ipv6 router ospf *processId*

- *processId*—Number in the range 1–65535 that identifies the OSPF process

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 router pim

Description	Creates and enables PIM for IPv6 on a virtual router; accesses PIM router configuration mode. The no version deletes PIM from a virtual router.
Syntax	[no] ipv6 router pim
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 route-type

Description	<p>For BGP, specifies whether BGP IPv6 routes are available only for other unicast protocols or for both unicast protocols and multicast protocols to perform RPF checks. The no version restores the default value, unicast.</p> <p>For OSPF, specifies whether OSPF IPv6 routes are available only for unicast forwarding, only for multicast reverse path forwarding checks, or for both. The no version restores the default value, both.</p>
Syntax	<p>For BGP</p> <pre>ipv6 route-type [unicast both] no ipv6 route-type</pre> <p>For OSPF</p> <pre>ipv6 route-type [unicast multicast both] no ipv6 route-type</pre> <ul style="list-style-type: none"> ■ unicast—Specifies that routes for the protocol are available only for unicast forwarding ■ both—Specifies that routes for the protocol are available for both unicast forwarding and multicast route path forwarding checks ■ multicast—Specifies that routes for the protocol are available only for multicast route path forwarding checks
Mode	Router Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 rpf-route

Description	Customizes static IPv6 routes that the router can use to verify source addresses in multicast packets. The no version removes the static route.
Syntax	<pre>ipv6 rpf-route [vrf vrfName] ipv6Address/addressMask { nextHopIpv6Address interfaceType interfaceSpecifier } [distance] no ipv6 rpf-route [vrf vrfName] ipv6Address/addressMask [nextHopIpv6Address interfaceType interfaceSpecifier] [distance]</pre> <ul style="list-style-type: none">■ <i>vrfName</i>—Name of the VRF; string of 1–32 alphanumeric characters■ <i>ipv6Address</i>—IPv6 address of the destination network■ <i>addressMask</i>—Subnet mask for the destination network■ <i>nextHopIpv6Address</i>—IPv6 address of the next hop■ <i>interfaceType</i>—Interface type; see <i>Interface Types and Specifiers</i> in <i>About This Guide</i>■ <i>interfaceSpecifier</i>—Particular interface; format varies according to interface type; see <i>Interface Types and Specifiers</i> in <i>About This Guide</i>■ <i>distance</i>—Number in the range 0–255 that indicates the preference for this route
Mode	Global Configuration
Release Information	Command introduced before JUNOS Release 7.1.0. vrf keyword and <i>vrfName</i> variable added in JUNOS Release 7.2.0.

ipv6 sa-validate

Description	Enables source address validation on an IPv6 interface. This feature verifies that a packet has been sent from a valid source address. When a packet arrives on an interface, the router performs a routing table lookup using the source address. The result from the routing table lookup is an interface to which packets destined for that address are routed. This interface must match the interface that the packet arrived on. If it does not match, the router drops the packet. The no version disables source address validation.
Syntax	[no] ipv6 sa-validate
Mode	Interface Configuration, Profile Configuration
Release Information	Command introduced before JUNOS Release 7.1.0.

ipv6 share-interface

Description Specifies the layer 2 interface that an IPv6 interface will share in the current virtual router. The **no** version removes the association between the layer 2 interface and the shared IPv6 interface.

Syntax `ipv6 share-interface interfaceType interfaceSpecifier`
`no ipv6 share-interface`

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

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 static-route table-map

Description Filters static routes before adding them to the routing table. The **no** version deletes the table map.

Syntax `ipv6 static-route table-map [vrf vrfName] mapName`
`no ipv6 static-route table-map [vrf vrfName] [mapName]`

- *vrfName*—Name of the VRF; string of 1–32 alphanumeric characters
- *mapName*—Name of the table map that you want the router to use

Mode Global Configuration

Release Information Command introduced before JUNOS Release 7.1.0.
vrf keyword and *vrfName* variable added in JUNOS Release 7.2.0.

ipv6 unnumbered

Description Enables or disables IPv6 processing on an interface without assigning an explicit IPv6 address to that interface. The global IPv6 address of the interface, specified by the *interfaceType interfaceSpecifier* values, becomes the source address in packets that the unnumbered interface generates. The **no** version of the command removes the IPv6 address from the interface.



NOTE: Enabling IPv6 on an interface automatically configures the link-local address on an unnumbered interface.

Syntax `ipv6 unnumbered interfaceType interfaceSpecifier`
`no ipv6 unnumbered`

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

Mode Interface Configuration, Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

ipv6 virtual-router

Description Specifies a virtual router in an IPv6 profile. Dynamic interfaces created with the profile are assigned to this VR. The **no** version removes the VR from the profile; if a VR is not specified via RADIUS, then any subsequent creation process for dynamic interfaces using the profile fails.

Syntax `[no] ipv6 virtual-router vrName`

- *vrName*—Name of the virtual router; a string of 1–15 alphanumeric characters

Mode Profile Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

isis authentication-key

Description Assigns a password for IS-IS level 1 and level 2 hellos used by neighboring routers that are using IS-IS password authentication. The **no** version deletes the password.

Syntax isis authentication-key [level-1 | level-2] *authKey*
no isis authentication-key [level-1 | level-2]

- level-1—Inserts the password into level 1 hello packets
- level-2—Inserts the password into level 2 hello packets
- *authKey*—Password; string of up to 8 characters

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

isis bfd-liveness-detection

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

Syntax [no] isis bfd-liveness-detection [minimum-interval *minInterval* |
[minimum-receive-interval *minRecInterval*]
[minimum-transmit-interval *minTransInterval*]] [multiplier *multValue*]

- *minInterval*—Minimum proposed transmit interval and required receive interval for BFD control packets; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minRecInterval*—Minimum interval at which the local peer must receive BFD control packets sent by the remote peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *minTransInterval*—Minimum proposed interval between BFD control packets sent by the local peer; number in the range 100–65535 milliseconds; default value is 300 milliseconds
- *multValue*—Detection multiplier value that the remote peer router multiplies by the local peer's negotiated transmit interval to determine the remote peer's BFD liveness detection interval; equal to the number of BFD packets that can be missed before the BFD session is declared down; number in the range 1–255; default value is 3

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced in JUNOS Release 7.1.0.

isis circuit-type

Description Configures the type of adjacency desired for the specified interface. The **no** version resets the circuit type to level 1 and level 2.

Syntax isis circuit-type [level-1 | level-1-2 | level-2-only]
no isis circuit-type

- level-1—Establishes a level 1 adjacency if there is at least one area address in common between this router and its neighbors
- level-1-2—(default) Establishes a level 1 and 2 adjacency if the neighbor is also configured as a level 1-2 router and there is at least one area in common. If there is no area in common, a level 2 adjacency is established.
- level-2-only—Establishes a level 2 adjacency on the circuit. If the neighboring router is a level 1 only router, no adjacency will be established.

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

isis csnp-interval

Description Configures the IS-IS CSNP interval for the specified interface. The **no** version restores the default value.

Syntax isis csnp-interval *seconds* [level-1 | level-2]
no isis csnp-interval [*seconds*] [level-1 | level-2]

- *seconds*—Number in the range 0–65535; the interval of time in seconds between the transmission of CSNPs on multiaccess networks for the designated router; default value is 10 seconds, except for WAN interfaces, where the default value is 0
- level-1—Sets the interval of time between transmission of CSNPs for level 1 independently
- level-2—Sets the interval of time between transmission of CSNPs for level 2 independently

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

isis hello-interval

Description Specifies the length of time in seconds between hello packets that the router sends on the specified interface. The **no** version restores the default value.

Syntax isis hello-interval *seconds* [level-1 | level-2]
 no isis hello-interval [*seconds*] [level-1 | level-2]

- *seconds*—Time (in the range 0–65535 seconds) equal to the *hello multiplier* times the *hello interval seconds*; default value is 10 seconds.
- level-1—Sets the hello interval for level 1 independently
- level-2—Sets the hello interval for level 2 independently

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

isis hello-multiplier

Description Specifies the number of IS-IS hello packets a neighbor must miss before the router declares the adjacency to be down. The **no** version restores the *multiplier* default value, 3.

Syntax isis hello-multiplier *multiplier* [level-1 | level-2]
 no isis hello-multiplier [*multiplier* | level-1 | level-2]

- *multiplier*—Value (in the range 3–1000) that the router uses as the hello-multiplier when calculating the advertised hold time. The default multiplier value is 3.
- level-1—Sets the hello-multiplier independently for level 1 adjacencies
- level-2—Sets the hello-multiplier independently for level 2 adjacencies

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

isis hello padding

Description Pads IS-IS hello packets to their full maximum transmission unit (MTU) size. The **no** version restores the hello padding to its default, no padding.

Syntax [no] isis hello padding

Mode Interface Configuration

Release Information Command introduced in JUNOS Release 7.3.0.

isis lsp-interval

Description Configures the time delay between successive IS-IS link-state packet transmissions. The **no** version restores the default value, 33 milliseconds.

Syntax isis lsp-interval *milliseconds*
no isis lsp-interval

- *milliseconds*—Number of milliseconds in the range 1–4294967295; an interval between successive link-state packets

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

isis mesh-group

Description Configures an interface in the same mesh group to act as a virtual multiaccess network. The **no** version disables the feature.

Syntax isis mesh-group { blocked | *number* }
no isis mesh-group

- blocked—Blocks reserved LSPs from being flooded out on this defined configured interface
- *number*—Mesh group number in the range 1–4294967295

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

isis message-digest-key

Description Specifies an HMAC MD5 key that the router uses to create a secure, encrypted message digest of IS-IS level 1 or level 2 hello packets on the interface. Level 1 packets are the default. The digest is inserted into the packet from which it is created. Using this algorithm protects against intrusion by preventing unauthorized routers from forming adjacencies with your router.

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

Syntax `isis message-digest-key keyId hmac-md5 key`
`[start-accept startAcceptTime [{ startAcceptMonth startAcceptDay | startAcceptDay`
`startAcceptMonth } startAcceptYear]]`
`[start-generate startGenTime [{ startGenMonth startGenDay | startGenDay startGenMonth`
`startGenYear]]`
`[stop-accept { never | stopAcceptTime [{ stopAcceptMonth stopAcceptDay | stopAcceptDay`
`stopAcceptMonth } stopAcceptYear]]]`
`[stop-generate { never | stopGenTime [{ stopGenMonth stopGenDay | stopGenDay`
`stopGenMonth } stopGenYear]]] [level-1 | level-2]`
`no isis message-digest-key keyId [level-1 | level-2]`

- *keyId*—Integer from 1 to 255 that is a unique identifier for the secret key, sent with the message digest in the packet.
- *key*—String of up to 20 alphanumeric characters; secret key used by the HMAC MD5 algorithm to generate the message digest.
- *startAcceptTime*, *startAcceptMonth*, *startAcceptDay*, *startAcceptYear*—Time, month, day, year that the router will start accepting packets created with this password. Use military time format *HH:MM[:SS]*.
- *startGenTime*, *startGenMonth*, *startGenDay*, *startGenYear*—Time, month, day, year that the router will start inserting this password into packets. Use military time format *HH:MM[:SS]*.
- *never*—Specifies that the router never stops accepting or generating packets; overrides previously specified stop times.
- *stopAcceptTime*, *stopAcceptMonth*, *stopAcceptDay*, *stopAcceptYear*—Time, month, day, year that the router will stop accepting packets created with this password. Use military time format *HH:MM[:SS]*.
- *stopGenTime*, *stopGenMonth*, *stopGenDay*, *stopGenYear*—Time, month, day, year that the router will stop inserting this password into packets. Use military time format *HH:MM[:SS]*.
- *level-1*—Inserts the password into level 1 hello packets
- *level-2*—Inserts the password into level 2 hello packets

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

isis metric

Description Configures the metric (cost) for the interface to links at the specified level. If no level is specified, the cost is applied to both level 1 and level 2 links. The **no** version restores the default metric value.

Syntax `isis metric defaultMetric [level-1 | level-2]`
`no isis metric [defaultMetric | level-1 | level-2]`

- *defaultMetric*—Metric used for the redistributed route; a number in the range 0–63 if the router is configured with the **metric-style narrow** command; a number in the range 0–16777215 if the router is configured with the **metric-style transition** or **metric-style wide** command; default value is 10
- *level-1*—Applies metric to level 1 links
- *level-2*—Applies metric to level 2 links

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

isis network point-to-point

Description Specifies the IS-IS circuit type as point-to-point. Issuing this command tears down existing adjacencies, originates or flushes LSPs, and establishes new adjacencies. The **no** version restores the default, treating the circuit as a broadcast circuit.

Syntax `[no] isis network point-to-point`

Mode Interface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

isis priority

Description Configures the priority of this router for designated router election. The **no** version resets priority to the default value, 64.

Syntax `isis priority value [level-1 | level-2]`
`no isis priority [level-1 | level-2]`

- *value*—Number in the range 0–127; the priority of a router; default value is 64
- *level-1*—Sets the priority of a router for level 1 independently
- *level-2*—Sets priority of a router for level 2 independently

Mode Interface Configuration, Subinterface Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

isis retransmit-interval

- Description** Configures the number of seconds between retransmission of LSPs with the same lsp-id for point-to-point links. The **no** version restores the default value.
- Syntax** isis retransmit-interval *seconds*
no isis retransmit-interval
- *seconds*—Number of seconds in the range 1–65535; default value is 5. The number should be greater than the expected round-trip delay between any two routers on the attached network. The setting of this parameter should be conservative, or needless retransmission will result. The value should be larger for serial lines.
- Mode** Interface Configuration, Subinterface Configuration
- Release Information** Command introduced before JUNOS Release 7.1.0.

isis retransmit-throttle-interval

- Description** Configures the amount of time between retransmissions of any IS-IS LSPs on a point-to-point interface. The **no** version restores the default value, 33 milliseconds.
- Syntax** isis retransmit-throttle-interval *milliseconds*
no isis retransmit-throttle-interval
- *milliseconds*—Number of milliseconds in the range 0–65535; the minimum delay between LSP retransmissions on the interface
- Mode** Interface Configuration, Subinterface Configuration
- Release Information** Command introduced before JUNOS Release 7.1.0.

isis tag

- Description** Sets a route tag value for the IP addresses on an IS-IS interface before the route is propagated to other routers in an IS-IS domain. To use the route tag, you must reference it in a route map to set values and/or redistribute routes. The **no** version removes the route tag from the interface.
- Syntax** [no] isis tag *tagValue*
- *tagValue*—Number in the range 1–4294967295 that identifies the route tag assigned to the IS-IS interface
- Mode** Interface Configuration, Subinterface Configuration
- Release Information** Command introduced before JUNOS Release 7.1.0.

issuer-identifier

Description Specifies the name of the CA issuer for online digital certificate configuration. In CA authentication requests, the identifier is used together with the enrollment URL specified by the **enrollment url** command. The **no** version removes the name from the configuration.

Syntax issuer-identifier *name*
no issuer-identifier

- *name*—Name of CA issuer; in the range 1–200 characters

Mode IPSec CA Identity Configuration

Release Information Command introduced before JUNOS Release 7.1.0.

issu initialize

Description Starts the initialization phase of unified ISSU. There is no **no** version.

Syntax issu initialize

Mode Privileged Exec

Release Information Command introduced in JUNOS Release 9.0.0.

issu start

Description Starts the upgrade phase of unified ISSU. There is no **no** version.

Syntax issu start

Mode Privileged Exec

Release Information Command introduced in JUNOS Release 9.0.0.

issu stop

Description Stops the unified ISSU operation and restores the router to the state existing before you issued the **issu initialize** command. There is no **no** version.

Syntax issu stop

Mode Privileged Exec

Release Information Command introduced in JUNOS Release 9.0.0.

is-type

Description Configures the IS-IS level at which the router is to operate. The **no** version restores the default value, level-1-2.

Syntax is-type { level-1 | level-1-2 | level-2-only }
no is-type

- level-1—Causes the router to act as a station router
- level-1-2—Causes the router to act as both a station router and an area router; the default setting
- level-2-only—Causes the router to act as an area router

Mode Router Configuration

Release Information Command introduced before JUNOS Release 7.1.0.