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clear ipv6 mobile binding

To clear the Mobile IPv6 binding cache on a router, use the **clear ipv6 mobile binding**command in privileged EXEC mode.

clear ipv6 mobile binding [**care-of-address** *prefix*| **home-address** *prefix*| *interface-type interface-number*]

Syntax Description

care-of-address	(Optional) Provides information about the mobile node's current location.
prefix	(Optional) IPv6 address prefix of the care-of address or the home address.
home-address	(Optional) IPv6 address assigned to the mobile node within its home subnet prefix on its home link.
interface-type interface-number	(Optional) Interface type and number.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.3(14)T	This command was introduced.

Usage Guidelines

The **clear ipv6 mobile binding** command clears the binding caches for a specified mobile node (if specified) or all mobile nodes (if no arguments or keywords are specified).

The *prefix* argument can be a prefix for the care-of address or the home address of a mobile node, so that entire networks can be cleared. Enter /**128** to clear an individual mobile node.

Use of this command with the *interface-type*and *interface-number* arguments clears all bindings on the specified interface.

Examples

In the following example, the binding caches for all mobile nodes are cleared:

```
Router# clear ipv6 mobile binding
Clear 1 bindings [confirm]
Router# show ipv6 mobile binding
Mobile IPv6 Binding Cache Entries:
Selection matched 0 bindings
```

Related Commands

Command	Description
binding	Configures binding options for the Mobile IPv6 home agent feature in home agent configuration mode.
ipv6 mobile home-agent (global configuration)	Enters home agent configuration mode.
show ipv6 mobile binding	Displays information about the binding cache.

clear ipv6 mobile home-agents

To clear the neighboring home agents list, use the **clear ipv6 mobile home-agents**command in privileged EXEC mode.

clear ipv6 mobile home-agents [*interface-type interface-number*]

Syntax Description

interface-type interface-number	(Optional) Interface type and number.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.3(14)T	This command was introduced.

Usage Guidelines

The **clear ipv6 mobile home-agents** command clears the neighboring home agents list. The list is subsequently reconstructed from received router advertisements.

If you do not enter the optional *interface type* and *interface-number*arguments, the home agent lists on all interfaces are cleared.

Examples

In the following example, the neighboring home agent lists are cleared:

```
Router# clear ipv6 mobile home-agents
```

Related Commands

Command	Description
binding	Configures binding options for the Mobile IPv6 home agent feature in home agent configuration mode.
ipv6 mobile home-agent (global configuration)	Enters home agent configuration mode.
show ipv6 mobile home-agent	Displays neighboring home agents.

clear ipv6 mobile traffic

To clear statistics associated with Mobile IPv6 traffic, use the **clear ipv6 mobile traffic**command in privileged EXEC mode.

clear ipv6 mobile traffic

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.3(14)T	This command was introduced.

Usage Guidelines

The **clear ipv6 mobile traffic** command clears the statistics about the received binding updates and transmitted binding acknowledgments on a mobile node.

Examples

In the following example, statistics about binding updates and binding acknowledgments are cleared:

```
Router# clear ipv6 mobile traffic

Router# show ipv6 mobile traffic
MIPv6 statistics:
  Rcvd: 0 total
      0 truncated, 0 format errors
      0 checksum errors
    Binding Updates received:0
      0 no HA option, 0 BU's length
      0 options' length, 0 invalid CoA
  Sent: 0 generated
    Binding Acknowledgements sent:0
      0 accepted (0 prefix discovery required)
      0 reason unspecified, 0 admin prohibited
      0 insufficient resources, 0 home reg not supported
      0 not home subnet, 0 not home agent for node
      0 DAD failed, 0 sequence number
    Binding Errors sent:0
      0 no binding, 0 unknown MH
  Home Agent Traffic:
    0 registrations, 0 deregistrations
    unknown time since last accepted HA registration
    unknown time since last failed HA registration
    unknown last failed registration code
    Traffic forwarded:
      0 tunneled, 0 reversed tunneled
    Dynamic Home Agent Address Discovery:
      0 requests received, 0 replies sent
    Mobile Prefix Discovery:
      0 solicitations received, 0 advertisements sent
```

Related Commands

Command	Description
binding	Configures binding options for the Mobile IPv6 home agent feature in home agent configuration mode.
show ipv6 mobile home-agent	Displays neighboring home agents.

clear ipv6 mtu

To clear the maximum transmission unit (MTU) cache of messages, use the **clear ipv6 mtu**command in privileged EXEC mode.

clear ipv6 mtu

Syntax Description

This command has no arguments or keywords.

Command Default

Messages are not cleared from the MTU cache.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
Cisco IOS XE Release 2.6	This command was introduced.
Cisco IOS XE Release 3.2SE	This command was integrated into Cisco IOS XE Release 3.2SE.

Usage Guidelines

If a router is flooded with ICMPv6 toobig messages, the router is forced to create an unlimited number of entries in the MTU cache until all available memory is consumed. Use the **clear ipv6 mtu** command to clear messages from the MTU cache.

Examples

The following example clears the MTU cache of messages:

```
Router# clear ipv6 mtu
```

Related Commands

Command	Description
ipv6 flowset	Configures flow-label marking in 1280-byte or larger packets sent by the router.

clear ipv6 multicast aaa authorization

To clear authorization parameters that restrict user access to an IPv6 multicast network, use the **clear ipv6 multicast aaa authorization**command in privileged EXEC mode.

clear ipv6 multicast aaa authorization [*interface-type interface-number*]

Syntax Description

interface-type interface-number	Interface type and number. For more information, use the question mark (**?**) online help function.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.4(4)T	This command was introduced.

Usage Guidelines

Using the **clear ipv6 multicast aaa authorization**command without the optional *interface-type* and *interface-number* arguments will clear all authorization parameters on a network.

Examples

The following example clears all configured authorization parameters on an IPv6 network:

```
Router# clear ipv6 multicast aaa authorization FastEthernet 1/0
```

Related Commands

Command	Description
aaa authorization multicast default	Sets parameters that restrict user access to an IPv6 multicast network.

clear ipv6 nat translation

To clear dynamic Network Address Translation--Protocol Translation (NAT-PT) translations from the dynamic state table, use the **clear ipv6 nat translation**command in privileged EXEC mode.

clear ipv6 nat translation *

Syntax Description

*	Clears all dynamic NAT-PT translations.

Command Default

Entries are deleted from the dynamic translation state table when they time out.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(13)T	This command was introduced.

Usage Guidelines

Use this command to clear entries from the dynamic translation state table before they time out. Static translation configuration is not affected by this command.

Examples

The following example shows the NAT-PT entries before and after the dynamic translation state table is cleared. Note that all the dynamic NAT-PT mappings are cleared, but the static NAT-PT configurations remain.

```
Router# show ipv6 nat translations
Prot  IPv4 source              IPv6 source
      IPv4 destination         IPv6 destination
---   ---                      ---
      192.168.123.2            2001::2
---   ---                      ---
      192.168.122.10           2001::10
tcp   192.168.124.8,11047      3002::8,11047
      192.168.123.2,23         2001::2,23
udp   192.168.124.8,52922      3002::8,52922
      192.168.123.2,69         2001::2,69
Router# clear ipv6 nat translation *
Router# show ipv6 nat translations
Prot  IPv4 source              IPv6 source
      IPv4 destination         IPv6 destination
---   ---                      ---
      192.168.123.2            2001::2
---   ---                      ---
      192.168.122.10           2001::10
```

Related Commands

Command	Description
ipv6 nat	Designates that traffic originating from or destined for the interface is subject to NAT-PT.
show ipv6 nat translations	Displays active NAT-PT translations.

clear ipv6 nd destination

To clear IPv6 host-mode destination cache entries, use the **clear ipv6 nd destination** command in privileged EXEC mode.

clear ipv6 nd destination [**vrf** *vrf-name*]

Syntax Description

vrf *vrf-name*	(Optional) Specifies a virtual routing and forwarding (VRF) configuration.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.0(2)SE	This command was introduced.

Usage Guidelines

The **clear ipv6 nd destination** command clears IPv6 host-mode destination cache entries. If the **vrf** *vrf-name* keyword and argument pair is used, then only information about the specified VRF is cleared.

Examples

The following example shows how to clear IPv6 host-mode destination cache entries:

```
Device# clear ipv6 nd destination
```

Related Commands

Command	Description
ipv6 nd host mode strict	Enables the conformant, or strict, IPv6 host mode.

clear ipv6 nd on-link prefix

To clear on-link prefixes learned through router advertisements (RAs), use the **clear ipv6 nd on-link prefix** command in privileged EXEC mode.

clear ipv6 nd on-link prefix [**vrf** *vrf-name*]

Syntax Description

vrf *vrf-name*	(Optional) Specifies a virtual routing and forwarding (VRF) configuration.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.0(2)SE	This command was introduced.

Usage Guidelines

Use the **clear ipv6 nd on-link prefix** command to clear locally reachable IPv6 addresses (e.g., on-link prefixes) learned through RAs. If the **vrf** *vrf-name* keyword and argument pair is used, then only information about the specified VRF is cleared.

Examples

The following examples shows how to clear on-link prefixes learned through RAs:

```
Device# clear ipv6 nd on-link prefix
```

Related Commands

Command	Description
ipv6 nd host mode strict	Enables the conformant, or strict, IPv6 host mode.

clear ipv6 nd router

To clear neighbor discovery (ND) device entries learned through router advertisements (RAs), use the **clear ipv6 nd router** command in privileged EXEC mode.

clear ipv6 nd router [**vrf** *vrf-name*]

Syntax Description

vrf *vrf-name*	(Optional) Specifies a virtual routing and forwarding (VRF) configuration.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.0(2)SE	This command was introduced.

Usage Guidelines

Use the **clear ipv6 nd router** command to clear ND device entries learned through RAs. If the **vrf** *vrf-name* keyword and argument pair is used, then only information about the specified VRF is cleared.

Examples

The following example shows how to clear neighbor discovery ND device entries learned through RAs:

```
Device# clear ipv6 nd router
```

Related Commands

Command	Description
ipv6 nd host mode strict	Enables the conformant, or strict, IPv6 host mode.

clear ipv6 neighbors

To delete all entries in the IPv6 neighbor discovery cache, except static entries and ND cache entries on non-virtual routing and forwarding (VRF) interfaces, use the **clear ipv6 neighbors** command in privileged EXEC mode.

Syntax for Releases 15.0(1)M, 12.2(33)SXH, and 12.2(33)SRC, and Later Releases

clear ipv6 neighbors [**interface** *type number* [**ipv6** *ipv6-address*]| **statistics**| **vrf** *table-name* [*ipv6-address*| **statistics**]]

Syntax for Release Cisco IOS XE Release 2.1 and Later Releases

clear ipv6 neighbors

Syntax Description

interface *type number*	(Optional) Clears the IPv6 neighbor discovery cache in the specified interface.
ipv6 *ipv6-address*	(Optional) Clears the IPv6 neighbor discovery cache that matches the specified IPv6 address on the specified interface.
statistics	(Optional) Clears the IPv6 neighbor discovery entry cache.
vrf	(Optional) Clears entries for a virtual private network (VPN) routing or forwarding instance.
table-name	(Optional) Table name or identifier. The value range is from 0x0 to 0xFFFFFFFF (0 to 65535 in decimal).

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(2)T	This command was introduced.
12.0(21)ST	This command was integrated into Cisco IOS Release 12.0(21)ST.
12.0(22)S	This command was integrated into Cisco IOS Release 12.0(22)S.
12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(25)SG	This command was integrated into Cisco IOS Release 12.2(25)SG.

Release	Modification
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SXH	This command was integrated into Cisco IOS Release 12.2(33)SXH.
15.0(1)M	This command was modified in a release earlier than Cisco IOS Release 15.0(1)M. The **vrf** keyword and *table-name* argument were added.
12.2(33)SRC	This command was integrated into a release earlier than Cisco IOS Release 12.2(33)SRC.
Cisco IOS XE Release 2.1	This command was implemented on the Cisco ASR 1000 Series Aggregation Services Routers.

Usage Guidelines

The **clear ipv6 neighbor** command clears ND cache entries. If the command is issued without the **vrf** keyword, then the command clears ND cache entries on interfaces associated with the default routing table (e.g., those interfaces that do not have a **vrf forwarding** statement). If the command is issued with the **vrf** keyword, then it clears ND cache entries on interfaces associated with the specified VRF.

Examples

The following example deletes all entries, except static entries and ND cache entries on non-VRF interfaces, in the neighbor discovery cache:

```
Device# clear ipv6 neighbors
```

The following example clears all IPv6 neighbor discovery cache entries, except static entries and ND cache entries on non-VRF interfaces, on Ethernet interface 0/0:

```
Device# clear ipv6 neighbors interface Ethernet 0/0
```

The following example clears a neighbor discovery cache entry for 2001:0DB8:1::1 on Ethernet interface 0/0:

```
Device# clear ipv6 neighbors interface Ethernet0/0 ipv6 2001:0DB8:1::1
```

In the following example, interface Ethernet 0/0 is associated with the VRF named red. Interfaces Ethernet 1/0 and Ethernet 2/0 are associated with the default routing table (because they are not associated with a VRF). Therefore, the **clear ipv6 neighbor** command will clear ND cache entries on interfaces Ethernet 1/0 and Ethernet 2/0 only. In order to clear ND cache entries on interface Ethernet 0/0, the user must issue the **clear ipv6 neighbor vrf** red command.

```
interface ethernet0/0
  vrf forward red
  ipv6 address 2001:db8:1::1/64

interface ethernet1/0
   ipv6 address 2001:db8:2::1/64

interface ethernet2/0
   ipv6 address 2001:db8:3::1/64
```

Related Commands

Command	Description
ipv6 neighbor	Configures a static entry in the IPv6 neighbor discovery cache.
show ipv6 neighbors	Displays IPv6 neighbor discovery cache information.

clear ipv6 nhrp

To clear all dynamic entries from the Next Hop Resolution Protocol (NHRP) cache, use the **clear ipv6 nhrp**command in privileged EXEC mode.

clear ipv6 nhrp [*ipv6-address*| **counters**]

Syntax Description

ipv6-address	(Optional) The IPv6 network to delete.
counters	(Optional) Specifies NHRP counters to delete.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.4(20)T	This command was introduced.

Usage Guidelines

This command does not clear any static (configured) IPv6-to-nonbroadcast multiaccess (NBMA) address mappings from the NHRP cache.

Examples

The following example shows how to clear all dynamic entries from the NHRP cache for the interface:

```
Router# clear ipv6 nhrp
```

Related Commands

Command	Description
show ipv6 nhrp	Displays the NHRP cache.

clear ipv6 ospf

To clear the Open Shortest Path First (OSPF) state based on the OSPF routing process ID, use the **cl ear ipv6 ospf** command in privileged EXEC mode.

clear ipv6 ospf [*process-id*] {**process**| **force-spf**| **redistribution**}

Syntax Description

process-id	(Optional) Internal identification. It is locally assigned and can be any positive integer. The number used here is the number assigned administratively when enabling the OSPF routing process.
process	Restarts the OSPF process.
force-spf	Starts the shortest path first (SPF) algorithm without first clearing the OSPF database.
redistribution	Clears OSPF route redistribution.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.0(24)S	This command was introduced.
12.2(15)T	This command was integrated into Cisco IOS Release 12.2(15)T.
12.2(18)S	This command was integrated into Cisco IOS Release 12.2(18)S.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SXH	This command was integrated into Cisco IOS Release 12.2(33)SXH.
Cisco IOS XE Release 2.1	This command was integrated into Cisco IOS XE Release 2.1.
15.0(1)M	This command was integrated into Cisco IOS Release 12.5(1)M.

Usage Guidelines

When the **process** keyword is used with the **clear ipv6 ospf**command, the OSPF database is cleared and repopulated, and then the shortest path first (SPF) algorithm is performed. When the **force-spf**keyword is used with the **clear ipv6 ospf**command, the OSPF database is not cleared before the SPF algorithm is performed.

Use the *process-id*option to clear only one OSPFprocess. If the *process-id*optionis not specified,all OSPF processesare cleared.

Examples

The following example starts the SPF algorithm without clearing the OSPF database:

```
Router# clear ipv6 ospf force-spf
```

clear ipv6 ospf counters

To clear the Open Shortest Path First (OSPF) state based on the OSPF routing process ID, use the **cl ear ipv6 ospf** command in privileged EXEC mode.

clear ipv6 ospf [*process-id*] **counters** [**neighbor** [*neighbor-interface*| *neighbor-id*]]

Syntax Description

process-id	(Optional) Internal identification. It is locally assigned and can be any positive integer. The number used here is the number assigned administratively when enabling the OSPF routing process.
neighbor	(Optional) Neighbor statistics per interface or neighbor ID.
neighbor-interface	(Optional) Neighbor interface.
neighbor-id	(Optional) IPv6 or IP address of the neighbor.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.0(24)S	This command was introduced.
12.2(15)T	This command was integrated into Cisco IOS Release 12.2(15)T.
12.2(18)S	This command was integrated into Cisco IOS Release 12.2(18)S.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SXH	This command was integrated into Cisco IOS Release 12.2(33)SXH.

Usage Guidelines

Use the **neighbor***neighbor-interface* option to clear counters for all neighbors on a specified interface. If the **neighbor***neighbor-interface* option is not used, all OSPF counters are cleared.

Use the **neighbor** *neighbor-id*option to clear counters at a specified neighbor. If the **neighbor** *neighbor-id*optionis not used,all OSPF counters are cleared.

Examples

The following example provides detailed information on a neighbor router:

```
Router# show ipv6 ospf neighbor detail
 Neighbor 10.0.0.1
    In the area 1 via interface Serial19/0
    Neighbor:interface-id 21, link-local address FE80::A8BB:CCFF:FE00:6F00
    Neighbor priority is 1, State is FULL, 6 state changes
    Options is 0x194AE05
    Dead timer due in 00:00:37
    Neighbor is up for 00:00:15
    Index 1/1/1, retransmission queue length 0, number of retransmission 1
    First 0x0(0)/0x0(0)/0x0(0) Next 0x0(0)/0x0(0)/0x0(0)
    Last retransmission scan length is 1, maximum is 1
    Last retransmission scan time is 0 msec, maximum is 0 msec
```

The following example clears all neighbors on the specified interface:

```
Router# clear ipv6 ospf counters neighbor s19/0
```

The following example now shows that there have been 0 state changes since the **clear ipv6 ospf counters neighbor s19/0** command was used:

```
Router# show ipv6 ospf neighbor detail
 Neighbor 10.0.0.1
    In the area 1 via interface Serial19/0
    Neighbor:interface-id 21, link-local address FE80::A8BB:CCFF:FE00:6F00
    Neighbor priority is 1, State is FULL, 0 state changes
    Options is 0x194AE05
    Dead timer due in 00:00:39
    Neighbor is up for 00:00:43
    Index 1/1/1, retransmission queue length 0, number of retransmission 1
    First 0x0(0)/0x0(0)/0x0(0) Next 0x0(0)/0x0(0)/0x0(0)
    Last retransmission scan length is 1, maximum is 1
    Last retransmission scan time is 0 msec, maximum is 0 msec
```

Related Commands

Command	Description
show ipv6 ospf neighbor	Displays OSPF neighbor information on a per-interface basis.

clear ipv6 ospf events

To clear the Open Shortest Path First (OSPF) for IPv6 event log content based on the OSPF routing process ID, use the **cl ear ipv6 ospf events**command in privileged EXEC mode.

clear ipv6 ospf [*process-id*] **events**

Syntax Description

process-id	(Optional) Internal identification. It is locally assigned and can be any positive integer. The number used here is the number assigned administratively when enabling the OSPF routing process.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(33)SRC	This command was introduced.
12.2(33)SB	This command was integrated into Cisco IOS Release 12.2(33)SB.
Cisco IOS XE Release 2.1	This command was introduced on Cisco ASR 1000 series routers.
12.2(33)XNE	This command was modified. It was integrated into Cisco IOS Release 12.2(33)XNE.

Usage Guidelines

Use the optional *process-id* argument to clear the IPv6 event log content of a specified OSPF routing process. If the *process-id* argument is not used, all event log content is cleared.

Examples

The following example enables the clearing of OSPF for IPv6 event log content for routing process 1:

```
Router# clear ipv6 ospf 1 events
```

clear ipv6 pim counters

To reset the Protocol Independent Multicast (PIM) traffic counters, use the **clear ipv6 pim counters** command in privileged EXEC mode.

clear ipv6 pim counters

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.0(26)S	This command was introduced.
12.2(18)S	This command was integrated into Cisco IOS Release 12.2(18)S.
12.3(4)T	This command was integrated into Cisco IOS Release 12.3(4)T.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(25)SG	This command was integrated into Cisco IOS Release 12.2(25)SG.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SXH	This command was integrated into Cisco IOS Release 12.2(33)SXH.
Cisco IOS XE Release 2.1	This command was introduced on Cisco ASR 1000 Series Routers.

Usage Guidelines

Using the **clear ipv6 pim counters**command will reset all PIM traffic counters.

Examples

The following example resets the PIM traffic counters:

```
Router# clear ipv6 pim counters
```

Related Commands

Command	Description
show ipv6 pim traffic	Displays the PIM traffic counters.

clear ipv6 pim limit

To clear Protocol Independent Multicast (PIM) statistics, use the **clear ipv6 pim limit** command in privileged EXEC mode.

clear ipv6 pim [**vrf** *vrf-name*] **limit** [*interface*]

Syntax Description

vrf *vrf-name*	(Optional) Specifies a virtual routing and forwarding (VRF) configuration.
interface	(Optional) Specific interface for which statistics will be cleared.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(33)SRE	This command was introduced.
15.1(4)M	The **vrf** *vrf-name* keyword and argument were added.

Usage Guidelines

The **clear ipv6 pim limit** command clears IPv6 PIM interface statistics. If the optional *interface* argument is enabled, only statistics for the specified interface are cleared.

Examples

The following example clears PIM interface limit statistics:

```
Router# clear ipv6 pim limit
```

Related Commands

Command	Description
ipv6 multicast limit	Configures per-interface mroute state limiters in IPv6.
ipv6 multicast limit cost	Applies a cost to mroutes that match per interface mroute state limiters in IPv6.

clear ipv6 pim reset

To delete all entries from the topology table and reset the Multicast Routing Information Base (MRIB) connection, use the **clear ipv6 pim reset**command inprivilegedEXEC mode.

clear ipv6 pim [**vrf** *vrf-name*] **reset**

Syntax Description

vrf *vrf-name*	(Optional) Specifies a virtual routing and forwarding (VRF) configuration.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.3(2)T	This command was introduced.
12.2(18)S	This command was integrated into Cisco IOS Release 12.2(18)S.
12.0(26)S	This command was integrated into Cisco IOS Release 12.0(26)S.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SXH	This command was integrated into Cisco IOS Release 12.2(33)SXH.
15.1(4)M	The **vrf** *vrf-name* keyword and argument were added.

Usage Guidelines

Using the **clear ipv6 pim reset** command breaks the PIM-MRIB connection, clears the topology table, and then reestablishes the PIM-MRIB connection. This procedure forces MRIB resynchronization.

Caution Use the **clear ipv6 pim reset** command with caution, as it clears all PIM protocol information from the PIM topology table. Use of the **clear ipv6 pim reset** command should be reserved for situations where PIM and MRIB communication are malfunctioning.

Examples

The following example deletes all entries from the topology table and resets the MRIB connection:

```
Router# clear ipv6 pim reset
```

clear ipv6 pim topology

To clear the Protocol Independent Multicast (PIM) topology table, use the **clear ipv6 pim topology** command inprivilegedEXEC mode.

clear ipv6 pim [**vrf** *vrf-name*] **topology** [*group-name*| *group-address*]

Syntax Description

vrf *vrf-name*	(Optional) Specifies a virtual routing and forwarding (VRF) configuration.
group-name | *group-address*	(Optional) IPv6 address or name of the multicast group.

Command Default

When the command is used with no arguments, all group entries located in the PIM topology table are cleared of PIM protocol information.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.3(2)T	This command was introduced.
12.2(18)S	This command was integrated into Cisco IOS Release 12.2(18)S.
12.0(26)S	This command was integrated into Cisco IOS Release 12.0(26)S.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(25)SG	This command was integrated into Cisco IOS Release 12.2(25)SG.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SXH	This command was integrated into Cisco IOS Release 12.2(33)SXH.
Cisco IOS XE Release 2.1	This command was introduced on Cisco ASR 1000 Series Routers.
15.1(4)M	The **vrf** *vrf-name* keyword and argument were added.
15.0(2)SE	This command was integrated into Cisco IOS Release 15.0(2)SE.

Usage Guidelines

This command clears PIM protocol informationfrom all group entries located in the PIM topology table. Information obtained from the MRIB table is retained. If a multicast group is specified, only those group entries are cleared.

Examples

The following example clears all group entries located in the PIM topology table:

```
Router# clear ipv6 pim topology
```

clear ipv6 pim traffic

To clear the Protocol Independent Multicast (PIM) traffic counters, use the **clear ipv6 pim traffic**command inprivilegedEXEC mode.

clear ipv6 pim [**vrf** *vrf-name*] **traffic**

Syntax Description

vrf *vrf-name*	(Optional) Specifies a virtual routing and forwarding (VRF) configuration.

Command Default

When the command is used with no arguments, all traffic counters are cleared.

Command Modes

Privileged EXEC

Command History

Release	Modification
15.1(4)M	This command was introduced.

Usage Guidelines

This command clears PIM traffic counters. If the **vrf** *vrf-name* keyword and argument are used, only those counters are cleared.

Examples

The following example clears all PIM traffic counter:

```
Router# clear ipv6 pim traffic
```

clear ipv6 prefix-list

To reset the hit count of the IPv6 prefix list entries, use the **clear ipv6 prefix-list**command in privileged EXEC mode.

clear ipv6 prefix-list [*prefix-list-name*] [*ipv6-prefix/prefix-length*]

Syntax Description

prefix-list-name	(Optional) The name of the prefix list from which the hit count is to be cleared.
ipv6-prefix	(Optional) The IPv6 network from which the hit count is to be cleared. This argument must be in the form documented in RFC 2373 where the address is specified in hexadecimal using 16-bit values between colons.
/ *prefix-length*	(Optional) The length of the IPv6 prefix. 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.

Command Default

The hit count is automatically cleared for all IPv6 prefix lists.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(2)T	This command was introduced.
12.0(21)ST	This command was integrated into Cisco IOS Release 12.0(21)ST.
12.0(22)S	This command was integrated into Cisco IOS Release 12.0(22)S.
12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(25)SG	This command was integrated into Cisco IOS Release 12.2(25)SG.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SXH	This command was integrated into Cisco IOS Release 12.2(33)SXH.

Release	Modification
Cisco IOS XE Release 2.1	This command was introduced on Cisco ASR 1000 Series Routers.

Usage Guidelines

The **clear ipv6 prefix-list**command is similar to the **clear ip prefix-list**command, except that it is IPv6-specific.

The hit count is a value indicating the number of matches to a specific prefix list entry.

Examples

The following example clears the hit count from the prefix list entries for the prefix list named first_list that match the network mask 2001:0DB8::/35.

```
Router# clear ipv6 prefix-list first_list 2001:0DB8::/35
```

Related Commands

Command	Description
ipv6 prefix-list	Creates an entry in an IPv6 prefix list.
ipv6 prefix-list sequence-number	Enables the generation of sequence numbers for entries in an IPv6 prefix list.
show ipv6 prefix-list	Displays information about an IPv6 prefix list or prefix list entries.

clear ipv6 rip

To delete routes from the IPv6 Routing Information Protocol (RIP) routing table, use the **clear ipv6 rip** command in privileged EXEC mode.

Cisco IOS Release XE 3.9S, Cisco IOS Release 15.3(2)S, and Later Releases

clear ipv6 rip [*name*] [**vrf** *vrf-name*]

Releases Prior to Cisco IOS XE Release 3.9S and Cisco IOS Release 15.3(2)S

clear ipv6 rip [*name*]

Syntax Description

name	(Optional) Name of an IPv6 RIP process.
vrf *vrf-name*	(Optional) Clears information about the specified Virtual Routing and Forwarding (VRF) instance.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.0(22)S	This command was introduced.
12.2(13)T	This command was integrated into Cisco IOS Release 12.2(13)T.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(25)SG	This command was integrated into Cisco IOS Release 12.2(25)SG.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SXH	This command was integrated into Cisco IOS Release 12.2(33)SXH.
Cisco IOS XE Release 3.9S	This command was integrated into Cisco IOS XE Release 3.9S. The **vrf** *vrf-name* keyword/argument pair was added.
15.3(3)M	This command was integrated into Cisco IOS Release 15.3(3)M.

Usage Guidelines

When the *name* argument is specified, only routes for the specified IPv6 RIP process are deleted from the IPv6 RIP routing table. If no *name* argument is specified, all IPv6 RIP routes are deleted.

Use the **show ipv6 rip** command to display IPv6 RIP routes.

Use the **clear ipv6 rip** *name* **vrf** *vrf-name* command to delete the specified VRF instances for the specified IPv6 RIP process.

Examples

The following example deletes all the IPv6 routes for the RIP process called one:

```
Device# clear ipv6 rip one
```

The following example deletes the IPv6 VRF instance, called vrf1 for the RIP process, called one:

```
Device# clear ipv6 rip one vrf vrf1

*Mar 15 12:36:17.022: RIPng: Deleting 2001:DB8::/32
*Mar 15 12:36:17.022: [Exec]IPv6RT[vrf1]: rip <name>, Delete all next-hops for 2001:DB8::1
*Mar 15 12:36:17.022: [Exec]IPv6RT[vrf1]: rip <name>, Delete 2001:DB8::1 from table
*Mar 15 12:36:17.022: [IPv6 RIB Event Handler]IPv6RT[<red>]: Event: 2001:DB8::1, Del, owner
 rip, previous None
```

Related Commands

Command	Description
debug ipv6 rip	Displays the current contents of the IPv6 RIP routing table.
ipv6 rip vrf-mode enable	Enables VRF-aware support for IPv6 RIP.
show ipv6 rip	Displays the current content of the IPv6 RIP routing table.

clear ipv6 route

To delete routes from the IPv6 routing table, use the **clear ipv6 route**command in privileged EXEC mode.

{**clear ipv6 route** {*ipv6-address*| *ipv6-prefix/prefix-length*}| *****}

Syntax Description

ipv6-address	The address of the IPv6 network to delete from the table. This argument must be in the form documented in RFC 2373 where the address is specified in hexadecimal using 16-bit values between colons.
ipv6-prefix	The IPv6 network number to delete from the table. This argument must be in the form documented in RFC 2373 where the address is specified in hexadecimal using 16-bit values between colons.
/ *prefix-length*	The length of the IPv6 prefix. 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.
*	Clears all IPv6 routes.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(2)T	This command was introduced.
12.0(21)ST	This command was integrated into Cisco IOS Release 12.0(21)ST.
12.0(22)S	This command was integrated into Cisco IOS Release 12.0(22)S.
12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(25)SG	This command was integrated into Cisco IOS Release 12.2(25)SG.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SXH	This command was integrated into Cisco IOS Release 12.2(33)SXH.

Usage Guidelines

The **clear ipv6 route**command is similar to the **clear ip route**command, except that it is IPv6-specific.

When the *ipv6-address* or *ipv6-prefix*/ *prefix-length* argument is specified, only that route is deleted from the IPv6 routing table. When the * keyword is specified, all routes are deleted from the routing table (the per-destination maximum transmission unit [MTU] cache is also cleared).

Examples

The following example deletes the IPv6 network 2001:0DB8::/35:

```
Router# clear ipv6 route 2001:0DB8::/35
```

Related Commands

Command	Description
ipv6 route	Establishes static IPv6 routes.
show ipv6 route	Displays the current contents of the IPv6 routing table.

clear ipv6 snooping counters

To remove counter entries, use the **clear ipv6 snooping counters**command in privileged EXEC mode.

clear ipv6 snooping counters [**interface** *type number*]

Syntax Description

interface *type number*	(Optional) Clears the counter of entries that match the specified interface type and number.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
12.2(50)SY	This command was introduced.

Usage Guidelines

The **clear ipv6 snooping counters**command removes counters from all the configured interfaces. You can use the optional **interface** *type number* keyword and argument to remove counters from the specified interface.

Examples

The following example shows how to remove entries from the counter:

```
Router# clear
 ipv6 snooping counters
```

clear ipv6 spd

To clear the most recent Selective Packet Discard (SPD) state transition, use the **clear ipv6 spd**command in privileged EXEC mode.

clear ipv6 spd

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.1(3)T	This command was introduced.

Usage Guidelines

The **clear ipv6 spd** command removes the most recent SPD state transition and any trend historical data.

Examples

The following example shows how to clear the most recent SPD state transition:

```
Router# clear ipv6 spd
```

clear ipv6 traffic

To reset IPv6 traffic counters, use the **clear ipv6 traffic**command in privileged EXEC mode.

clear ipv6 traffic [*interface-type interface-number*]

Syntax Description

interface-type interface-number	Interface type and number. For more information, use the question mark (**?**) online help function.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(2)T	This command was introduced.
12.0(21)ST	This command was integrated into Cisco IOS Release 12.0(21)ST.
12.0(22)S	This command was integrated into Cisco IOS Release 12.0(22)S and output fields were added.
12.2(13)T	The modification to add output fields was integrated into this release.
12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(25)SG	This command was integrated into Cisco IOS Release 12.2(25)SG.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SXH	This command was integrated into Cisco IOS Release 12.2(33)SXH.
12.2(33)XN	The optional *interface-type* and *interface-number* arguments were added.

Usage Guidelines

Using this command resets the counters in the output from the **show ipv6 traffic** command.

Examples

The following example resets the IPv6 traffic counters. The output from the **show ipv6 traffic** command shows that the counters are reset:

```
Router# clear ipv6 traffic
Router# show ipv6 traffic
IPv6 statistics:
  Rcvd:  1 total, 1 local destination
```

```
         0 source-routed, 0 truncated
         0 format errors, 0 hop count exceeded
         0 bad header, 0 unknown option, 0 bad source
         0 unknown protocol, 0 not a router
         0 fragments, 0 total reassembled
         0 reassembly timeouts, 0 reassembly failures
  Sent:  1 generated, 0 forwarded
         0 fragmented into 0 fragments, 0 failed
         0 encapsulation failed, 0 no route, 0 too big
  Mcast: 0 received, 0 sent
ICMP statistics:
  Rcvd: 1 input, 0 checksum errors, 0 too short
        0 unknown info type, 0 unknown error type
        unreach: 0 routing, 0 admin, 0 neighbor, 0 address, 0 port
        parameter: 0 error, 0 header, 0 option
        0 hopcount expired, 0 reassembly timeout,0 too big
        0 echo request, 0 echo reply
        0 group query, 0 group report, 0 group reduce
        0 router solicit, 0 router advert, 0 redirects
        0 neighbor solicit, 1 neighbor advert
Sent: 1 output
        unreach: 0 routing, 0 admin, 0 neighbor, 0 address, 0 port
        parameter: 0 error, 0 header, 0 option
        0 hopcount expired, 0 reassembly timeout,0 too big
        0 echo request, 0 echo reply
        0 group query, 0 group report, 0 group reduce
        0 router solicit, 0 router advert, 0 redirects
        0 neighbor solicit, 1 neighbor advert
UDP statistics:
  Rcvd: 0 input, 0 checksum errors, 0 length errors
        0 no port, 0 dropped
  Sent: 0 output
TCP statistics:
  Rcvd: 0 input, 0 checksum errors
  Sent: 0 output, 0 retransmitted
```

Related Commands

Command	Description
show ipv6 traffic	Displays IPv6 traffic statistics.

clear ipv6 wccp

To remove IPv6 Web Cache Communication Protocol (WCCP) statistics (counts) maintained on the router for a particular service, use the **clear ipv6 wccp** command in privileged EXEC mode.

clear ipv6 wccp[**vrf***vrf-name*][*service-number*][**web-cache**][**default**]

Syntax Description

vrf *vrf-name*	(Optional) Directs the router to remove statistics for a specific virtual routing and forwarding (VRF) instance.
service-number	(Optional) Number of the cache service to be removed. The number can be from 0 to 254.
web-cache	(Optional) Directs the router to remove statistics for the web cache service.
default	(Optional) Directs the router to remove statistics for the default routing table.

Command Default

WCCP statistics are not removed.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.2(3)T	This command was introduced.
15.1(1)SY1	This command was integrated into Cisco IOS Release 15.1(1)SY1.

Usage Guidelines

Use the **show ipv6 wccp** and **show ipv6 wccp detail** commands to display WCCP statistics. If Cisco Cache Engines are used in your service group, the reverse proxy service is indicated by a value of 99.

Use the **clear ipv6 wccp** command to clear the WCCP counters for all WCCP services in all VRFs.

Examples

The following example shows how to clear all statistics associated with the web cache service:

```
Router# clear ipv6 wccp web-cache
```

Related Commands

Command	Description
ipv6 wccp	Enables support of the specified WCCP service for participation in a service group.
show ipv6 wccp	Displays global statistics related to the WCCP.

clear mls cef ipv6 accounting per-prefix

To clear information about the IPv6 per-prefix accounting statistics, use the **clear mls cef ipv6 accounting per-prefix**command in privileged EXEC mode.

clear mls cef ipv6 accounting per-prefix {**all**| *ipv6-address/mask* [*instance*]}

Syntax Description

all	Clears all per-prefix accounting statistics information.
ipv6-address / *mask*	Entry IPv6 address and mask. The format used is X:X:X:X::X/ *mask,*where the valid values for *mask* are from 0 to 128.
instance	(Optional) VPN routing and forwarding instance name.

Command Default

This command has no default settings.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(17a)SX	This command was introduced on the Supervisor Engine 720.
12.2(17d)SXB	Support for this command on the Supervisor Engine 2 was extended to Release 12.2(17d)SXB.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.

Usage Guidelines

When entering the *ipv6-address* / *mask* arguments, use this format, X:X:X:X::X/*mask,*where the valid values for *mask* are from 0 to 128.

Examples

This example shows how to clear all information about the per-prefix accounting statistics:

```
Router#
clear mls cef ipv6 accounting per-prefix all
```

clear ospfv3 counters

To clear Open Shortest Path First version 3 (OSPFv3) counters, use the **clear ospfv3 counters** command in privileged EXEC mode.

clear ospfv3 [*process-id*] [*address-family*] [**vrf** {*vrf-name*| *****}] **counters** [**neighbor** [*neighbor-interface*| *neighbor-id*]]

Syntax Description

process-id	(Optional) Internal identification. The number used here is the number assigned administratively when enabling the OSPFv3 routing process and can be a value from 1 through 65535.
address-family	(Optional) Enter **ipv6** for the IPv6 address family or **ipv4** for the IPv4 address family.
vrf	(Optional) VPN Routing/Forwarding instance.
{*vrf-name* | *****}	The virtual routing and forwarding table for which the information should be displayed. If this parameter is not specified, only information for the global routing table is shown. A VRF name of "*" displays information for all VRFs, including the global table.
neighbor	(Optional) Neighbor statistics per interface or neighbor ID.
neighbor-interface	(Optional) Specified neighbor interface.
neighbor-id	(Optional) IPv6 or IPv4 address of the neighbor.

Command Modes

Privileged EXEC

Command History

Release	Modification
15.1(3)S	This command was introduced.
Cisco IOS XE Release 3.4S	This command was integrated into Cisco IOS XE Release 3.4S.
15.2(1)T	This command was integrated into Cisco IOS Release 15.2(1)T.
15.2(2)S	This command was integrated into Cisco IOS Release 15.2(2)S.
15.2(4)M	This command was integrated into Cisco IOS Release 15.2(4)M.

Usage Guidelines

Use the **neighbor***neighbor-interface* option to clear counters for all neighbors on a specified interface. If the **neighbor***neighbor-interface* option is not used, all OSPFv3 counters are cleared.

Examples

The following example clears all neighbors on the serial 19/0 interface:

```
Router# clear ospfv3 counters neighbor s19/0
```

clear ospfv3 force-spf

To run shortest path first (SPF) calculations for an Open Shortest Path First version 3 (OSPFv3) process, use the **clear ospfv3 force-spf** command in privileged EXEC mode.

clear ospfv3 [*process-id*] [*address-family*] [**vrf** {*vrf-name*| *****}] **force-spf**

Syntax Description

process-id	(Optional) Internal identification. The number used here is the number assigned administratively when enabling the OSPFv3 routing process and can be a value from 1 through 65535.
address-family	(Optional) Enter **ipv6** for the IPv6 address family or **ipv4** for the IPv4 address family.
vrf	(Optional) VPN Routing/Forwarding instance.
{*vrf-name* | *****}	The virtual routing and forwarding table for which the information should be displayed. If this parameter is not specified, only information for the global routing table is shown. A VRF name of "*" displays information for all VRFs, including the global table.

Command Modes

Privileged EXEC

Command History

Release	Modification
15.1(3)S	This command was introduced.
Cisco IOS XE Release 3.4S	This command was integrated into Cisco IOS XE Release 3.4S.
15.2(1)T	This command was integrated into Cisco IOS Release 15.2(1)T.
15.2(2)S	This command was integrated into Cisco IOS Release 15.2(2)S.
15.2(4)M	This command was integrated into Cisco IOS Release 15.2(4)M.
15.1(1)SY	This command was integrated into Cisco IOS Release 15.1(1)SY.

Usage Guidelines

Use the **clear ospv3 force-spf**command to run SPF calculations for either an IPv6 or an IPv4 OSPFv3 instance. If the optional *process-ID* argument is not used, SPF runs on all instances on the interface. <<OK?>>

Examples The following example enables SPF calculations for process 1:

```
Router# clear ospfv3 1 force-spf
```

clear ospfv3 process

To reset an Open Shortest Path First version 3 (OSPFv3) process, use the **clear ospfv3 process**command in privileged EXEC mode.

clear ospfv3 process [*process-id*] [*address family*] [**vrf** {*vrf-name*| *****}] **nsr** [**synchronization** | **statistics**]

Syntax Description

process *process-id*	(Optional) Internal identification. The number used here is the number assigned administratively when enabling the OSPFv3 routing process and can be a value from 1 through 65535.
address family	(Optional) Enter **ipv6** for the IPv6 address family or **ipv4** for the IPv4 address family.
vrf	(Optional) VPN Routing/Forwarding instance.
{*vrf-name* | *****}	The virtual routing and forwarding table for which the information should be displayed. If this parameter is not specified, only information for the global routing table is shown. A VRF name of "*" displays information for all VRFs, including the global table.
synchronization	(Optional) Causes OSPFv3 on the standby Route Processor (RP) to reset and resynchronize with the active RP.
statistics	(Optional) Resets statistical counters maintained for NSR.

Command Modes

Privileged EXEC

Command History

Release	Modification
15.1(3)S	This command was introduced.
Cisco IOS XE Release 3.4S	This command was integrated into Cisco IOS XE Release 3.4S.
15.2(1)T	This command was integrated into Cisco IOS Release 15.2(1)T.
15.2(2)S	This command was integrated into Cisco IOS Release 15.2(2)S.
15.2(4)M	This command was integrated into Cisco IOS Release 15.2(4)M.
15.1(1)SY	This command was integrated into Cisco IOS Release 15.1(1)SY.

Usage Guidelines

Use the **clear ospv3 process**command to reset either an IPv6 or IPv4 OSPFv3 process. If the optional *process-ID* argument is not used, all OSPFv3 processes are reset.

Examples

The following example resets the OSPFv3 process 2:

```
Router# clear ospfv3 2 process
```

clear ospfv3 redistribution

To clear Open Shortest Path First version 3 (OSPFv3) route redistribution, use the **clear ospfv3 redistribution**command in privileged EXEC mode.

clear ospfv3 [*process-id*] [*address-family*] [**vrf** {*vrf-name*| *****}] **redistribution**

Syntax Description

process-id	(Optional) Internal identification. The number used here is the number assigned administratively when enabling the OSPFv3 routing process and can be a value from 1 through 65535.
address-family	(Optional) Enter **ipv6** for the IPv6 address family or **ipv4** for the IPv4 address family.
vrf	(Optional) VPN Routing/Forwarding instance.
{*vrf-name* | *****}	The virtual routing and forwarding table for which the information should be displayed. If this parameter is not specified, only information for the global routing table is shown. A VRF name of "*" displays information for all VRFs, including the global table.

Command Modes

Privileged EXEC

Command History

Release	Modification
15.1(3)S	This command was introduced.
Cisco IOS XE Release 3.4S	This command was integrated into Cisco IOS XE Release 3.4S.
15.2(1)T	This command was integrated into Cisco IOS Release 15.2(1)T.
15.2(2)S	This command was integrated into Cisco IOS Release 15.2(2)S.
15.2(4)M	This command was integrated into Cisco IOS Release 15.2(4)M.
15.1(1)SY	This command was integrated into Cisco IOS Release 15.1(1)SY.

Usage Guidelines

Use the **clear ospv3 process**command to clear either IPv6 or IPv4 OSPFv3 redistribution. If the optional *process-ID* argument is not used, all processes on the interface are cleared. <<OK?>>

Examples

The following example clears OSPFv3 redistribution on all OSPFv3 processes:

```
Router# clear ospfv3 redistribution
```

clear ospfv3 traffic

To reset counters and clear Open Shortest Path First version 3 (OSPFv3) traffic statistics, use the **clear ospfv3 traffic** command privileged EXEC mode.

clear ospfv3 [*process-id*] [*address-family*] [**vrf** {*vrf-name*| *****}] **traffic** [*interface*]

Syntax Description

process-id	(Optional) Internal identification. The number used here is the number assigned administratively when enabling the OSPFv3 routing process and can be a value from 1 through 65535.
address-family	(Optional) Enter **ipv6** for the IPv6 address family or **ipv4** for the IPv4 address family.
vrf	(Optional) VPN Routing/Forwarding instance.
{*vrf-name* | *****}	The virtual routing and forwarding table for which the information should be displayed. If this parameter is not specified, only information for the global routing table is shown. A VRF name of "*" displays information for all VRFs, including the global table.
interface	(Optional) Specified interface from which to clear traffic statistics.

Command Modes

Privileged EXEC

Command History

Release	Modification
15.1(3)S	This command was introduced.
Cisco IOS XE Release 3.4S	This command was integrated into Cisco IOS XE Release 3.4S.
15.2(1)T	This command was integrated into Cisco IOS Release 15.2(1)T.
15.2(2)S	This command was integrated into Cisco IOS Release 15.2(2)S.
15.2(4)M	This command was integrated into Cisco IOS Release 15.2(4)M.
15.1(1)SY	This command was integrated into Cisco IOS Release 15.1(1)SY.

Usage Guidelines

Use the **clear ospv3 traffic**command to reset traffic statistics for an IPv6 or IPv4 OSPFv3 process. If the optional *process-ID* argument is not used, all traffic statistics are cleared. <<OK?>>

Examples

The following example resets the counters and clears the OSPFv3 traffics statistics:

```
Router# clear ospfv3 traffic
```

compatible rfc1583

To restore the method used to calculate summary route costs per RFC 1583, use the **compatible rfc1583**command in router configuration mode. To disable RFC 1583 compatibility, use the **no** form of this command.

compatible rfc1583

no compatible rfc1583

Syntax Description

This command has no arguments or keywords.

Command Default

Compatible with RFC 1583.

Command Modes

Router configuration

Command History

Release	Modification
12.1(2)T	This command was introduced.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2SX	This command is supported in the Cisco IOS Release 12.2SX train. Support in a specific 12.2SX release of this train depends on your feature set, platform, and platform hardware.

Usage Guidelines

This command is backward compatible with Cisco IOS Release 12.0.

To minimize the chance of routing loops, all Open Shortest Path First (OSPF) routers in an OSPF routing domain should have RFC compatibility set identically.

Because of the introduction of RFC 2328, OSPF Version 2, the method used to calculate summary route costs has changed. Use the no compatible rfc1583 command to enable the calculation method used per RFC 2328.

Examples

The following example specifies that the router process is compatible with RFC 1583:

```
router ospf 1
 compatible rfc1583
 !
```

ctunnel mode

To transport IPv4 and IPv6 packets over Connectionless Network Service (CLNS) tunnel (CTunnel), use the **ctunnelmode** command in interface configuration mode. To return the ctunnel to the default **cisco** mode, use the **no** form of this command.

ctunnel mode [**gre**| **cisco**]

no ctunnel mode

Syntax Description

gre	(Optional) Sets the ctunnel mode to Generic Routing Encapsulation (GRE) for transporting IPv6 packets over the CLNS network.
cisco	(Optional) Returns the ctunnel mode to the default cisco.

Command Default

Cisco encapsulation tunnel mode is the default.

Command Modes

Interface configuration

Command History

Release	Modification
12.3(7)T	This command was introduced.
12.2(25)S	This command was integrated into Cisco IOS Release 12.2(25)S.
12.2(28)SB	This command was integrated into Cisco IOS Release 12.2(28)SB.
12.2(33)SRA	This command was integrated into Cisco IOS Release 12.2(33)SRA.
12.2(33)SXH	This command was integrated into Cisco IOS Release 12.2(33)SXH.

Usage Guidelines

GRE tunneling of IPv4 and IPv6 packets through CLNS-only networks enables Cisco ctunnels to interoperate with networking equipment from other vendors. This feature provides compliance with RFC 3147, Generic Routing Encapsulation over CLNS Networks, which should allow interoperation between Cisco equipment and that of other vendors. in which the same standard is implemented.

RFC 3147 specifies the use of GRE when tunneling packets. The implementation of this feature does not include support for GRE header fields such as those used to specify checksums, keys, or sequencing. Any packets received which specify the use of these features will be dropped.

The default ctunnel mode continues to use the standard Cisco encapsulation. Both ends of the tunnel must be configured with the same mode for it to work. If you want to tunnel ipv6 packets you must use the new gre mode.

Examples

The following example configures a CTunnel from one router to another and shows the CTunnel destination set to 49.0001.1111.1111.1111.00. The ctunnel mode is set to gre to transport IPv6 packets.

```
interface ctunnel 301
 ipv6 address 2001:0DB8:1111:2222::2/64
 ctunnel destination 49.0001.1111.1111.1111.00
 ctunnel mode gre
```

Related Commands

Command	Description
clns routing	Enables routing of CLNS packets.
ctunnel destination	Specifies the destination for the CTunnel.
debug ctunnel	Displays debug messages for the IP over a CLNS Tunnel feature.
interface ctunnel	Creates a virtual interface to transport IP over a CLNS tunnel.
ip address	Sets a primary or secondary IP address for an interface.

ctunnel mode