Contents

IPv6 PIM snooping commands

display ipv6 pim-snooping neighbor

Use **`display ipv6 pim-snooping neighbor`** to display IPv6 PIM snooping neighbor information.

Syntax

`display ipv6 pim-snooping neighbor` [**`vlan`** *`vlan-id`*] [**`slot`** *`slot-number`*] [**`verbose`**]

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

`vlan` *`vlan-id`*: Specifies a VLAN by its VLAN ID in the range of 1 to 4094. If you do not specify a VLAN, this command displays IPv6 PIM snooping neighbor information for all VLANs.

`slot` *`slot-number`*: Specifies an IRF member device by its member ID. If you do not specify a member device, this command displays IPv6 PIM snooping neighbor information for the master device.

`verbose`: Displays detailed information about IPv6 PIM snooping neighbors. If you do not specify this keyword, the command displays brief information about IPv6 PIM snooping neighbors.

Examples

Display detailed information about IPv6 PIM snooping neighbors for VLAN 2.

```
<Sysname> display ipv6 pim-snooping neighbor vlan 2 verbose
Total 2 neighbors.

VLAN 2: Total 2 neighbors.
  FE80::6401:101
    Slots (0 in total):
    Ports (1 in total):
      GE1/0/1                          (02:02:23)    LAN Prune Delay(T)
  FE80::C801:101
    Slots (0 in total):
    Ports (1 in total):
      GE1/0/2                          (02:02:25)
```

Table 1 Command output

Field	Description
Total 2 neighbors	Total number of IPv6 PIM snooping neighbors.
VLAN 2: Total 2 neighbors	Total number of IPv6 PIM snooping neighbors in VLAN 2.
FE80::6401:101	IPv6 address of the IPv6 PIM snooping neighbor.
Slots (0 in total)	Member IDs and total number of the member devices that have the

Field	Description
	neighbor, except for the specified member device or the master device when no member device is specified.
Ports (1 in total)	Ports where IPv6 PIM snooping neighbors reside, and the total number of the ports.
(02:02:23)	Remaining aging time for an IPv6 PIM snooping neighbor on the port. This field is always displayed for a global port (such as Layer 2 aggregate interfaces). For a non-global port, this field is displayed when one of the following conditions exists: • The port is on the specified member device. • The port is on the master device and no member device is specified.
LAN Prune Delay	IPv6 PIM hello message sent by the IPv6 PIM snooping neighbor has the LAN_Prune_Delay option.
(T)	The join report suppression feature has been disabled for the IPv6 PIM snooping neighbor.

display ipv6 pim-snooping router-port

Use **display ipv6 pim-snooping router-port** to display IPv6 PIM snooping router port information.

Syntax

display ipv6 pim-snooping router-port [**vlan** *vlan-id*] [**slot** *slot-number*] [**verbose**]

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

vlan *vlan-id*: Specifies a VLAN by its VLAN ID in the range of 1 to 4094. If you do not specify a VLAN, this command displays IPv6 PIM snooping router port information for all VLANs.

verbose: Displays detailed information about IPv6 PIM snooping router ports. If you do not specify this keyword, the command displays brief information about IPv6 PIM snooping router ports.

slot *slot-number*: Specifies an IRF member device by its member ID. If you do not specify a member device, this command displays IPv6 PIM snooping router port information for the master device.

Examples

Display IPv6 PIM snooping router port information for VLAN 2.

```
<Sysname> display ipv6 pim-snooping router-port vlan 2
VLAN 2:
  Router ports (2 in total):
    GE1/0/1                            (00:01:30)
    GE1/0/2                            (00:01:32)
```

Table 2 Command output

Field	Description
VLAN 2	VLAN ID.
Router slots (0 in total)	Member IDs and total number of the member devices that have router ports, except for the specified member device or the master device when no member device is specified.
Router ports (2 in total)	Router ports and total number of router ports.
(00:01:30)	Remaining aging time for the router port. For a global port, this field is always displayed. For a non-global port, this field is displayed when one of the following conditions exists: • The port is on the specified member device. • The port is on the master device and no member device is specified.

display ipv6 pim-snooping routing-table

Use **display ipv6 pim-snooping routing-table** to display IPv6 PIM snooping routing entries.

Syntax

display ipv6 pim-snooping routing-table [**vlan** *vlan-id*] [**slot** *slot-number*] [**verbose**]

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

vlan *vlan-id*: Specifies a VLAN by its VLAN ID in the range of 1 to 4094. If you do not specify a VLAN, this command displays IPv6 PIM snooping routing entries for all VLANs.

slot *slot-number*: Specifies an IRF member device by its member ID. If you do not specify a member device, this command displays IPv6 PIM snooping routing entries for the master device.

verbose: Displays detailed information about IPv6 PIM snooping routing entries. If you do not specify this keyword, the command displays brief information about IPv6 PIM snooping routing entries.

Examples

Display detailed information about IPv6 PIM snooping routing entries for VLAN 2.

```
<Sysname> display ipv6 pim-snooping routing-table vlan 2 verbose
Total 1 entries.
FSM Flag: NI-no info, J-join, PP-prune pending

VLAN 2: Total 1 entries.
  (2000::1, FF1E::1)
    FSM information: dummy
    Upstream neighbor: FE80::101
```

```
          Upstream Slots (0 in total):
          Upstream Ports (1 in total):
            GE1/0/1
          Downstream Slots (0 in total):
          Downstream Ports (2 in total):
            GE1/0/2
               Expires: 00:03:01, FSM: J
               Downstream Neighbors (2 in total):
                 1001::1
                    Expires: 00:59:19, FSM: J
                 1001::2
                    Expires: 00:59:20, FSM: J
            GE1/0/3
               Expires: 00:02:21, FSM: PP
```

Table 3 Command output

Field	Description
Total 1 entries	Total number of (S, G) and (*, G) entries.
FSM Flag: NI-no info, J-join, PP-prune pending	State machine flag of the downstream port: • **NI**—Initial state. • **J**—Join. • **PP**—Prune pending.
VLAN 2: Total 1 entries	Total number of (S, G) entries in VLAN 2.
(2000::1, FF1E::1)	(S, G) entry.
FSM information	Finite state machine information for the entry: • **delete**—The entry attributes have been deleted. • **dummy**—The entry is a new temporary entry. • **no info**—The entry does not exist.
Upstream neighbor	Upstream neighbor of the (S, G) or (*, G) entry.
Upstream Slots (0 in total)	Member IDs and total number of the member devices that have the upstream neighbor, except for the specified member device or the master device when no member device is specified.
Upstream Ports (1 in total)	Upstream ports, and the total number of the ports. This field is displayed when one of the following conditions exists: • The port is on the specified member device. • The port is on the master device and no member device is specified.
Downstream Slots (0 in total)	Member IDs and total number of the member devices that have downstream ports, except for the specified member device or the master device when no member device is specified.
Downstream Ports (2 in total)	Downstream ports of the upstream neighbor, and the total number of the ports.
Downstream Neighbors (2 in total)	Downstream neighbors of the downstream port, and the total number of the neighbors.
Expires: 00:03:01, FSM: J	Remaining aging time for the downstream port or downstream neighbor, and the finite sate machine information. For a global port, this field is always displayed. For a non-global port, this field is displayed when one of the following conditions exists:

Field	Description
	• The port is on the specified member device.
	• The port is on the master device and no member device is specified.

display ipv6 pim-snooping statistics

Use **display ipv6 pim-snooping statistics** to display statistics for the IPv6 PIM messages learned through IPv6 PIM snooping.

Syntax

display ipv6 pim-snooping statistics

Views

Any view

Predefined user roles

network-admin

network-operator

Examples

Display statistics for the IPv6 PIM messages learned through IPv6 PIM snooping.

```
<Sysname> display ipv6 pim-snooping statistics
Received IPv6 PIM hello:  100
Received IPv6 PIM join/prune:  100
Received IPv6 PIM error:  0
Received IPv6 PIM messages in total:  200
```

Table 4 Command output

Field	Description
Received IPv6 PIM hello	Number of received IPv6 PIM hello messages.
Received IPv6 PIM join/prune	Number of received IPv6 PIM join/prune messages.
Received IPv6 PIM error	Number of received IPv6 PIM messages with errors.
Received IPv6 PIM messages in total	Total number of received IPv6 PIM messages.

Related commands

reset ipv6 pim-snooping statistics

ipv6 pim-snooping enable

Use **ipv6 pim-snooping enable** to enable IPv6 PIM snooping for a VLAN.

Use **undo ipv6 pim-snooping enable** to disable IPv6 PIM snooping for a VLAN.

Syntax

ipv6 pim-snooping enable

undo ipv6 pim-snooping enable

Default

IPv6 PIM snooping is disabled for a VLAN.

Views

> VLAN view

Predefined user roles

> network-admin

Usage guidelines

> IPv6 PIM snooping does not take effect on sub-VLANs of IPv6 multicast VLANs.
>
> You must enable the MLD snooping feature and enable MLD snooping for a VLAN before you execute this command.

Examples

> # Enable the MLD snooping feature, and then enable MLD snooping and IPv6 PIM snooping for VLAN 2.

```
<Sysname> system-view
[Sysname] mld-snooping
[Sysname-mld-snooping] quit
[Sysname] vlan 2
[Sysname-vlan2] mld-snooping enable
[Sysname-vlan2] ipv6 pim-snooping enable
```

Related commands

> **mld-snooping**
>
> **mld-snooping enable**

ipv6 pim-snooping graceful-restart join-aging-time

> Use **ipv6 pim-snooping graceful-restart join-aging-time** to set the aging time for global downstream ports and global router ports on the new master device after a master/subordinate switchover.
>
> Use **undo ipv6 pim-snooping graceful-restart join-aging-time** to restore the default.

Syntax

> **ipv6 pim-snooping graceful-restart join-aging-time** *seconds*
>
> **undo ipv6 pim-snooping graceful-restart join-aging-time**

Default

> The aging time is 210 seconds for global downstream ports and global router ports on the new master device after a master/subordinate switchover.

Views

> VLAN view

Predefined user roles

> network-admin

Parameters

> *seconds*: Specifies an aging time in the range of 210 to 18000 seconds.

Usage guidelines

> You must enable IPv6 PIM snooping for a VLAN before you execute this command.

Global ports include Layer 2 aggregate interfaces. A global downstream port or a global router port is a global port that acts as a downstream port or router port, respectively.

Examples

In VLAN 2, set the aging time to 300 seconds for global downstream ports and global router ports on the new master device after a master/subordinate switchover.

```
<Sysname> system-view
[Sysname] mld-snooping
[Sysname-mld-snooping] quit
[Sysname] vlan 2
[Sysname-vlan2] mld-snooping enable
[Sysname-vlan2] ipv6 pim-snooping enable
[Sysname-vlan2] ipv6 pim-snooping graceful-restart join-aging-time 300
```

Related commands

ipv6 pim-snooping enable

ipv6 pim-snooping graceful-restart neighbor-aging-time

Use **ipv6 pim-snooping graceful-restart neighbor-aging-time** to set the aging time for global neighbor ports on the new master device after a master/subordinate switchover.

Use **undo ipv6 pim-snooping graceful-restart neighbor-aging-time** to restore the default.

Syntax

ipv6 pim-snooping graceful-restart neighbor-aging-time *seconds*

undo ipv6 pim-snooping graceful-restart neighbor-aging-time

Default

The aging time is 105 seconds for global neighbor ports on the new master device after a master/subordinate switchover.

Views

VLAN view

Predefined user roles

network-admin

Parameters

seconds: Specifies an aging time in the range of 105 to 18000 seconds.

Usage guidelines

You must enable IPv6 PIM snooping for a VLAN before you execute this command.

Global ports include Layer 2 aggregate interfaces. A global neighbor port is a global port that acts as a neighbor port.

Examples

In VLAN 2, set the aging time to 300 seconds for global neighbor ports on the new master device after a master/subordinate switchover.

```
<Sysname> system-view
[Sysname] mld-snooping
[Sysname-mld-snooping] quit
[Sysname] vlan 2
```

```
[Sysname-vlan2] mld-snooping enable
[Sysname-vlan2] ipv6 pim-snooping enable
[Sysname-vlan2] ipv6 pim-snooping graceful-restart neighbor-aging-time 300
```

Related commands

ipv6 pim-snooping enable

reset ipv6 pim-snooping statistics

Use **reset ipv6 pim-snooping statistics** to clear statistics for the IPv6 PIM messages learned through IPv6 PIM snooping.

Syntax

reset ipv6 pim-snooping statistics

Views

User view

Predefined user roles

network-admin

Examples

Clear statistics for the IPv6 PIM messages learned through IPv6 PIM snooping.

```
<Sysname> reset ipv6 pim-snooping statistics
```

Related commands

display ipv6 pim-snooping statistics