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# 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 in the range of 1 to 4094. If you do not specify a VLAN, this command displays information about IPv6 PIM snooping neighbors for all VLANs.

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

**verbose**: Displays detailed information. If you do not specify this keyword, the command displays brief information.

### Examples

# Display detailed IPv6 PIM snooping neighbor information 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):  
    XGE1/0/1                (02:02:23)    LAN Prune Delay(T)  
FE80::C801:101  
  Slots (0 in total):  
  Ports (1 in total):  
    XGE1/0/2                (00:32:43)
```

**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	IP address of the IPv6 PIM snooping neighbor.
Ports (1 in total)	Ports that have IPv6 PIM snooping neighbors, and the total number of the ports.
(02:02:23)	Remaining aging time for an IPv6 PIM snooping neighbor on the port.

Field	Description
	<ul style="list-style-type: none"> <li>For a global port, this field is always displayed.</li> <li>For a non-global port, this field is displayed if the port is on the master device. Otherwise, you must specify the <b>slot slot-number</b> option to display this field.</li> </ul>
LAN Prune Delay	PIM hello message sent by the IPv6 PIM snooping neighbor has the LAN_Prune_Delay option.
(T)	The join report suppression function 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 ]
```

### Views

Any view

### Predefined user roles

network-admin

network-operator

### Parameters

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

**slot *slot-number***: Specifies an IRF member device by its member ID. If you do not specify this option, the command displays IPv6 PIM snooping router port information on 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 slots (0 in total):
```

```
Router ports (2 in total):
```

```
 XGE1/0/1                (00:01:30)
```

```
 XGE1/0/2                (00:01:32)
```

**Table 2 Command output**

Field	Description
Router ports (2 in total)	Router port and total number.
(00:01:30)	Remaining aging time for the router port. <ul style="list-style-type: none"> <li>For a global port, this field is always displayed.</li> <li>For a non-global port, this field is displayed when the port is on the master device. Otherwise, you must specify the <b>slot slot-number</b> option to display this field.</li> </ul>

# 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 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 this option, the command displays IPv6 PIM snooping routing entries on the master device.

**verbose**: Displays detailed information. If you do not specify this keyword, the command displays brief information.

## 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):
```

```
XGE1/0/1
```

```
Downstream Slots (0 in total):
```

```
Downstream Ports (2 in total):
```

```
XGE1/0/2
```

```
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
```

```
XGE1/0/3
```

```
Expires: 00:02:21, FSM: PP
```

**Table 3 Command output**

Field	Description
Total 1 entries	Total number of (S, G) entries and (*, G) entries.

Field	Description
FSM Flag: NI-no info, J-join, PP-prune pending	State machine flag of the downstream port: <ul style="list-style-type: none"> <li>• <b>NI</b>—Initial state.</li> <li>• <b>J</b>—Join.</li> <li>• <b>PP</b>—Prune pending.</li> </ul>
(2000::1, FF1E::1)	(S, G) entry.
FSM information	Finite state machine information of the entry: <ul style="list-style-type: none"> <li>• <b>delete</b>—The entry attributes have been deleted.</li> <li>• <b>dummy</b>—The entry is a new temporary entry.</li> <li>• <b>no info</b>—No entry exists.</li> </ul>
Upstream neighbor	Upstream neighbor of the (S, G) or (*, G) entry.
Upstream Ports (1 in total)	Upstream ports, and the total number of the ports. This field is displayed if the port is on the master device. Otherwise, you must specify the <b>slot slot-number</b> option to display this field.
Downstream Ports (2 in total)	Downstream port of the upstream neighbor, and the total number of the downstream ports.
Downstream Neighbors (2 in total)	Downstream neighbors of the downstream port, and the total number of the downstream neighbors.
Expires: 00:03:01, FSM: J	Remaining aging time for the downstream port or downstream neighbor, and the finite state machine information. <ul style="list-style-type: none"> <li>• For a global port, this field is always displayed.</li> <li>• For a non-global port, this field is displayed if the port is on the master device. Otherwise, you must specify the <b>slot slot-number</b> option to display this field.</li> </ul>

## 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 in a VLAN.

### Views

VLAN view

### Predefined user roles

network-admin

### Usage guidelines

You must enable MLD snooping globally and for a VLAN before you execute this command for the VLAN.

IPv6 PIM snooping does not take effect on sub-VLANs of a multicast VLAN.

### Examples

# Enable MLD snooping globally, and 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 IPv6 PIM snooping global downstream ports and global router ports on the new master device in IRF master election.

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

### Syntax

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

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

### Default

The default setting is 210 seconds.

### Views

VLAN view

### Predefined user roles

network-admin

### Parameters

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

### Usage guidelines

A global downstream port or a global router port is a Layer 2 aggregate interface that acts as a downstream port or router port.

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

### Examples

# In VLAN 2, set the aging time for IPv6 PIM snooping global downstream ports and global router ports to 600 seconds on the new master device in IRF master election.

```
<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 IPv6 PIM snooping global neighbor ports on the new master device in IRF master election.

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

### Syntax

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

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

## Default

The default setting is 105 seconds.

## Views

VLAN view

## Predefined user roles

network-admin

## Parameters

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

## Usage guidelines

A global neighbor port is a Layer 2 aggregate interface that acts as a neighbor port.

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

## Examples

# In VLAN 2, set the aging time for IPv6 PIM snooping global neighbor ports to 300 seconds on the new master device in IRF master election.

```
<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**