Contents

PIM snooping commands

display pim-snooping neighbor

Use **display pim-snooping neighbor** to display PIM snooping neighbor information.

Syntax

display 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 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 PIM snooping neighbor information for the master device.

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

Examples

Display detailed information about PIM snooping neighbors for VLAN 2.

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

VLAN 2: Total 2 neighbors.
  10.1.1.2
    Slots (0 in total):
    Ports (1 in total):
      XGE1/0/1                          (02:02:23)    LAN Prune Delay(T)
  10.1.1.3
    Slots (0 in total):
    Ports (1 in total):
      XGE1/0/2                          (02:02:25)
```

Table 1 Command output

Field	Description
Total 2 neighbors	Total number of PIM snooping neighbors.
VLAN 2: Total 2 neighbors	Total number of PIM snooping neighbors in VLAN 2.
10.1.1.2	IP address of the PIM snooping neighbor.
Slots (0 in total)	Member IDs and total number of the member devices that have the neighbor, except for the specified member device or the master device when no member device is specified.

Field	Description
Ports (1 in total)	Ports where the PIM snooping neighbors reside, and the total number of the ports.
(02:02:23)	Remaining aging timer for a PIM snooping neighbor on the port. This field is always displayed for a global port (such as Layer 2 aggregate interfaces, ACs, N-PWs, and U-PWs). 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	The PIM hello message sent by the PIM snooping neighbor has the LAN_Prune_Delay option.
(T)	The join message suppression feature has been disabled for the PIM snooping neighbor.
XGE1/0/3	Member port.

display pim-snooping router-port

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

Syntax

display 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 PIM snooping router port information for all VLANs.

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

Examples

Display brief information about PIM snooping router ports for VLAN 2.

```
<Sysname> display pim-snooping router-port vlan 2
VLAN 2:
  Router ports (2 in total):
    XGE1/0/1                          (00:01:30)
    XGE1/0/2                          (00:01:32)
```

Table 2 Command output

Field	Description
VLAN 2	VLAN ID.

Field	Description
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.
XGE1/0/3	Member port.

display pim-snooping routing-table

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

Syntax

display 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 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 PIM snooping routing entries for the master device.

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

Examples

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

```
<Sysname> display 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.
  (172.10.10.1, 225.1.1.1)
    FSM information: dummy
    Upstream neighbor: 20.1.1.1
      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):
      7.1.1.1
        Expires: 00:59:19, FSM: J
      7.1.1.11
        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.
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 and (*, G) entries in VLAN 2.
(172.10.10.1, 225.1.1.1)	(S, G) entry.
FSM information	Finite state machine information of 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 upstream 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 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. 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.

Field	Description
XGE1/0/3	Member port.

display pim-snooping statistics

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

Syntax

display pim-snooping statistics

Views

Any view

Predefined user roles

network-admin

network-operator

Examples

Display statistics for the PIM messages learned through PIM snooping.

```
<Sysname> display pim-snooping statistics
Received PIMv2 hello:  100
Received PIMv2 join/prune:  100
Received PIMv2 error:  0
Received PIMv2 messages in total:  200
Received PIMv1 messages in total:  0
```

Table 4 Command output

Field	Description
Received PIMv2 hello	Number of received PIMv2 hello messages.
Received PIMv2 join/prune	Number of received PIMv2 join/prune messages.
Received PIMv2 error	Number of received PIMv2 messages with errors.
Received PIMv2 messages in total	Total number of received PIMv2 messages.
Received PIMv1 messages in total	Total number of received PIMv1 messages.

Related commands

reset pim-snooping statistics

pim-snooping enable

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

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

Syntax

pim-snooping enable

undo pim-snooping enable

Default

PIM snooping is disabled for a VLAN.

Views

VLAN view

Predefined user roles

network-admin

Usage guidelines

You must enable IGMP snooping globally and for a VLAN before you enable PIM snooping for the VLAN.

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

Examples

Enable the IGMP snooping feature, and then enable IGMP snooping and PIM snooping for VLAN 2.

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

Related commands

igmp-snooping

igmp-snooping enable

pim-snooping graceful-restart join-aging-time

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

Syntax

pim-snooping graceful-restart join-aging-time *seconds*

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

Default

The default setting is 210 seconds.

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 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 600 seconds for global downstream ports and global router ports on the new master device after a master/subordinate switchover.

```
<Sysname> system-view
[Sysname] igmp-snooping
[Sysname-igmp-snooping] quit
[Sysname] vlan 2
[Sysname-vlan2] igmp-snooping enable
[Sysname-vlan2] pim-snooping enable
[Sysname-vlan2] pim-snooping graceful-restart join-aging-time 600
```

Related commands

pim-snooping enable

pim-snooping graceful-restart neighbor-aging-time

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

Syntax

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

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

Default

The default setting is 105 seconds.

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 PIM snooping in 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] igmp-snooping
[Sysname-igmp-snooping] quit
[Sysname] vlan 2
[Sysname-vlan2] igmp-snooping enable
[Sysname-vlan2] pim-snooping enable
```

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

Related commands

pim-snooping enable

reset pim-snooping statistics

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

Syntax

reset pim-snooping statistics

Views

User view

Predefined user roles

network-admin

Examples

Clear statistics for the PIM messages learned through PIM snooping.

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

Related commands

display pim-snooping statistics