MLD-Snooping Configuration Commands

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Chapter 1   MLD Multicast Configuration Commands

The MLD multicast configuration commands include:

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1.1   ipv6 mld-snooping {enable | disable}

Syntax

ipv6 mld-snooping

no ipv6 mld-snooping

To enable MLD snooping, run **ipv6 mld-snooping**.

Parameter

None

Default value

This command is used to enable MLD snooping.

Remarks

After MLD snooping is enabled, when DLF occurs on multicast packets (that is, the destination address is not registered in the swap chip through the MLD-snooping), all multicast packets whose destination addresses are not registered on any port will be dropped.

Example

The following example shows how to enable the MLD snooping function:

switch_config# ipv6 mld-snooping

1.2 ipv6 mld-snooping solicitation

Syntax

ipv6 mld-snooping solicitation

no ipv6 mld-snooping solicitation

To enable or disable the hardware forwarding of the multicast group, run **ip mld-snooping solicitation**.To resume the default value, run **no ip mld-snooping solicitation**.

Parameter

None

Default value

This function is shut down.

Remarks

None

Example

The following example shows how to enable the hardware forward of the multicast group.

switch_config#**ipv6 mld-snooping solicitation**

1.3 ipv6 mld-snooping vlan *vlan_id* static *X:X:X:X::X* interface *intf*

Syntax

ipv6 mld-snooping vlan *vlan_id* **static** *X:X:X:X::X* **interface** *intf*

no ipv6 mld-snooping vlan *vlan_id*   **static** *X:X:X:X::X* **interface** *intf*

Parameter

Parameter	Description
vlan id	Stands for the ID of a VLAN. Value range: 1-4094
X:X:X:X::X	IP address of the multicast
inft	An interface

Default value

None

Remarks

This command is used to configure the static multicast address of VLAN. Its negative form is used to cancel the static multicast address.

Example

The following example shows how to add the static multicast address, ff12::5, to interface g1/1.

switch_config# ipv6 mld-snooping vlan 1 static ff12::5 interface
g1/1 switch_config#

1.4   ipv6 mld-snooping timer router-age *timer_value*

Syntax

ipv6 mld-snooping timer   router-age   *timer_value*

no ipv6 mld-snooping timer router-age

Parameter

Parameter	Description

time value	Queries the time of the timer. Value range: 10-2147483647

Default value

260 seconds

Remarks

This command is used to query the time of the timer of MLD-Snooping. The negative form of this command is used to resume the default value.

Example

The following example shows how to set the query time of the router to 300 seconds.

switch_config# ipv6 mld-snooping timer router-age 300
switch_config#

1.5   ipv6 mld-snooping timer response-time *timer_value*

Syntax

ipv6 mld-snooping timer response-time *timer_value*

no ipv6 mld-snooping timer response-time

To configure the maximum response time of IGMP snooping, run **ip mld-snooping timer response-time** *timer_value*. To resume the default value of IGMP snooping, run **no ip mld-snooping timer response-time** *timer_value*.

Parameter

Parameter	Description
time value	Queries the time of the timer. Value range: 1-255

Default value

15 seconds

Remarks

None

Example

The following example shows how to set the query response time of IGMP snooping to 20 seconds.

switch_config# ipv6 mld-snooping timer response-time 20

1.6 ipv6 mld-snooping vlan *vlan_id* mrouter interface *inft_name*

Syntax

ipv6 mld-snooping vlan *vlan_id* **mrouter** interface *inft_name*

no ipv6 mld-snooping vlan *vlan_id* **mrouter** interface *inft_name*

To set the static multicast router's port of MLD snooping, run the first one of the above-mentioned commands.

Parameter

Parameter	Description
vlan id	Stands for the ID of a VLAN. Value range: 1-4094
X:X:X:X::X	IP address of the multicast
inft_name	Shows the port type, the slot and the port ID.

Default value

15 seconds

Remarks

None

Example

The following example shows how to set interface g1/4 to be the interface of the static multicast router of MLD snooping.

switch_config# ipv6 mld-snooping vlan 1 mrouter interface g1/4

1.7 ipv6 mld-snooping vlan *vlan_id* immediate-leave

Syntax

ipv6 mld-snooping vlan *vlan_id* **immediate-leave**

no ipv6 mld-snooping vlan *vlan_id* **immediate-leave**

Parameter

Parameter	Description
vlan id	Stands for the ID of a VLAN. Value range: 1-4094

Default value

The immediate-leave functionality is disabled.

Remarks

This command is used to set the immediate-leave functionality.

Example

The following example shows how to enable the immediate-leave functionality on VLAN 1:

switch_config# ipv6 mld-snooping vlan 1 immediate-leave
switch_config#

1.8   show ipv6 mld-snooping

Syntax

show ipv6 mld-snooping

Parameter

None

Default value

None

Remarks

This command is used to display the information about MLD-snooping configuration.

Example

The following example shows how to display the information about MLD snooping.

switch#**show ipv6 mld-snooping**

Global MLD snooping configuration:

Globally enable   : Enabled
Querier   : Enabled
Querier address   : FE80::0FF:FE0:FD00:1
Router age   : 260 s
Response time   : 10 s
Handle Solicitation   : Enabled

Vlan 1:

    Running
    Routers: SWITCH(querier);
Vlan 2:

    Running
    Routers: SWITCH(querier);
Switch_config#show ipv6 mld-s g
Vlan Group Type Port(s)
---- --------------- ---- -----------------------------------
    1 FF02::1:FF13:647D MLD   G1/23
    1 FF02::1:FF13:394 MLD   G1/23
    2 FF02::1:FF00:2   MLD   G1/22
    1 FF02::1:FF00:12 MLD   G1/23
    1 FF02::1:FF00:2   MLD   G1/23
    2 FF02::1:FF61:9901 MLD   G1/22
switch#

1.9   show ipv6 mld-snooping timer

Syntax

show ipv6 mld-snooping timer

Parameter

None

Default value

None

Remarks

This command is used to display the information about the MLD-snooping clock.

Example

The following example shows how to display the information about the MLD-snooping clock.

switch#**show ipv6 mld-snooping timers**

vlan 1 Querier on port 0 : 251
vlan 2 Querier on port 0 : 251
vlan 2 multicast address 3333.0000.0005 response time : 13

switch#
vlan 2 multicast address 3333.0000.0005 response time : This shows the time period from receiving a multicast query packet to the present; if there is no host to respond when the timer times out, the port will be canceled.

1.10   show ipv6 mld-snooping groups

Syntax

show ipv6 mld-snooping groups

Parameter

None

Default value

None

Remarks

This command is used to display the information about the multicast group of MLD-snooping.

Example

The following example shows how to display the information about the multicast group of MLD-snooping.

switch# show ipv6 mld-snooping timer

Vlan Group   Type Port(s)

```
---- --------------- ---- ------------------------------------
    2 FF02::1:FF00:2   MLD   G2/22
    2 FF02::1:FF61:9901 MLD   G2/22
    1 FF02::1:FF13:394 MLD   G2/23
    1 FF02::1:FF00:2   MLD   G2/23
    1 FF02::1:FF00:12 MLD   G2/23
    1 FF02::1:FF13:647D MLD   G2/23
switch#
```

1.11   show ipv6 mld-snooping statistics

Syntax

show ipv6 mld-snooping statistics

Parameter

None

Default value

None

Remarks

This command is used to display the information about MLD-snooping statistics.

Example

The following example shows how to display the information about MLD-snooping statistics.

```
switch#show ipv6 mld-snooping statistics
v1_packets:0          Quantity of MLD v1 packets
v2_packets:6          Quantity of MLD v2 packets
v3_packets:0          Quantity of MLD v3 packets
general_query_packets:5      Quantity of general query packets
special_query_packets:0      Quantity of special query packets
listener_packets:6      Quantity of Report packets
done_packets:0      Quantity of Leave packets
err_packets:0      Quantity of error packets
```

1.12   show ipv6 mld-snooping mac

Syntax

show ipv6 mld-snooping mac

Parameter

None

Default value

None

Remarks

This command is used to display the multicast MAC of MLD snooping.

Example

The following example shows how to display the multicast MAC of MLD snooping.

```
switch#show ipv6 mld-snooping mac
 Vlan Mac              Ref Flags
 ---- --------------- ---- ------
     1 3333:0000:0001      1    2
     2 3333:ff61:9901      1    0
          FF02::1:FF61:9901
     1 3333:0000:0002      1    2
     1 3333:ff00:0002      1    0
          FF02::1:FF00:2
     1 3333:ff00:0012      1    0
          FF02::1:FF00:12
     1 3333:ff13:647d      1    0
          FF02::1:FF13:647D
     2 3333:ff00:0002      1    0
          FF02::1:FF00:2
     1 3333:ff13:0394      1    0
          FF02::1:FF13:394
     1 3333:ff00:0001      1    2
     1 3333:ff8e:7000      1    2
switch#
```
Ref means the quantity of referred IPv6 addresses of MAC.
Flags means the debug output information, and 2 means the information need be sent to CPU.