

## MLD-Snooping Configuration Commands

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## Chapter 1 MLD Multicast Configuration Commands

The MLD multicast configuration commands include:

- **ipv6 mld-snooping**
- **ipv6 mld-snooping solicitation**
- **ipv6 mld-snooping vlan *vlan\_id* static *X:X:X:X::X* interface *intf***
- **ipv6 mld-snooping timer router-age *timer\_value***
- **ipv6 mld-snooping timer response-time *timer\_value***
- **ipv6 mld-snooping vlan *vlan\_id* mrouter interface *int\_name***
- **ipv6 mld-snooping vlan *vlan\_id* immediate-leave**
- **show ipv6 mld-snooping**
- **show ipv6 mld-snooping timer**
- **show ipv6 mld-snooping groups**
- **show ipv6 mld-snooping statistics**
- **show ipv6 mld-snooping mac**

### 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
<i>vlan id</i>	Stands for the ID of a VLAN. Value range: 1-4094
<i>X:X:X:X::X</i>	IP address of the multicast
<i>intf</i>	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
-----------	-------------

<i>time value</i>	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
<i>time value</i>	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
<i>vlan id</i>	Stands for the ID of a VLAN. Value range: 1-4094
<i>X:X:X:X::X</i>	IP address of the multicast
<i>inft_name</i>	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
<i>vlan id</i>	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::3FF:FEFE: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.