# EPON Multicast Configuration Commands

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# Chapter 1　**OLT IGMP Multicast Configuration Commands**

The OLT IGMP multicast configuration commands include:

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## 1.1.1   ip mcst {enable | disable}

Syntax

**ip mcst enable**

**{no ip mcst | ip mcst disable}**

To enable and disable the IGMP snooping function, run **epon onu mcst enable**; to resume the default value, run **{no epon onu mcst | epon onu mcst disable}**.

Parameter

None

Default value

The IGMP snooping is disabled.

Remarks

After IGMP snooping is enabled, when DLF occurs on multicast packets (that is, the destination address is not registered in the swap chip through the igmp-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 IGMP snooping function:

switch_config# ip mcst enable

## 1.1.2   ip mcst mc-vlan *vlan_id*   range *A.B.C.D*&<1-n>

Syntax

**ip mcst mc-vlan** *vlan_id*   **range** *A.B.C.D*&<1-n>

**no ip mcst mc-vlan** *vlan_id*   *[***range** *A.B.C.D*&<1-n>**]**

Parameter

| Parameter | Parameter description |
|-----------|----------------------|
| *vlan_id* | VLAN ID |
| *A.B.C.D* | IP address of the multicast |

Default value

None

Remarks

**This command has two functions: one is that only the Report and Leave packets whose destination IP addresses have been added to a multicast VLAN can be received by IGMP snooping; the other one is that the VLAN tag which transforms the next multicast flow is the multicast VLAN tag. One multicast VLAN can include multiple continuous or discontinuous multicast IP addresses, while one multicast IP address can only belong to one multicast VLAN.**

Example

The following command is used to add multicast group 225.1.1.1 to multicast VLAN2:

switch_config#ip mcst mc-vlan 2 range 225.1.1.1

**Note:**

224.0.0.0-224.0.0.255, as unroutable multicast addresses, cannot be registered on each port.

### 1.1.3    **ip mcst vlan** *vlan_id*    **static** *A.B.C.D* **interface** *intf*

Syntax

**ip mcst vlan** *vlan_id*    **static** *A.B.C.D* **interface** *intf*

**no ip mcst vlan** *vlan_id*    **static** *A.B.C.D* **interface** *intf*

Parameter

| Parameter | Parameter description |
|-----------|----------------------|
| *vlan id* | Stands for the ID of a VLAN. Value range: 1-4094 |
| *A.B.C.D* | 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 234.5.6.7 to port EPON0/1:1.

switch_config# ip mcst vlan 1 static 234.5.6.7 interface EPON0/1:1
switch_config#

**Note:**

224.0.0.0-224.0.0.255 stands for irroutable multicast addresses which cannot be registered on each port.

## 1.1.4 ip mcst timer router-age *timer_value*

Syntax

**ip mcst timer router-age** *timer_value*

**no ip mcst timer router-age**

Parameter

| 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 IGMP-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# ip mcst timer router-age 300
switch_config#

## 1.1.5 ip mcst timer response-time *timer_value*

Syntax

**ip mcst timer response-time** *timer_value*

**no ip mcst timer response-time**

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

Parameter

| 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# ip mcst timer response-time 20

## 1.1.6 **ip mcst mrouter** interface *inft_name*

Syntax

**ip mcst mrouter** interface *inft_name*

**no ip mcst mrouter** interface *inft_name*

To configure the port of the static multicast router of IGMP snooping, run **ip mcst mrouter interface** *inft_name*.

Parameter

| Parameter | Parameter description |
|---|---|
| *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 port G0/4 to the port of the static multicast router of IGMP snooping.

switch_config# ip mcst timer mrouter interface G0/4

### 1.1.7 **ip igmp-proxy enable**

Syntax

**ip igmp-proxy enable**

**{no ip igmp-proxy enable}**

To enable IGMP proxy, run **ip mcst enable**. To resume the default value, run **{no ip mcst | ip mcst disable}**.

Parameter

None

Default value

The IGMP proxy is disabled by default.

Remarks

None

Example

The following example shows how to enable the IGMP proxy:

switch_config# ip igmp-proxy enable

### 1.1.8 **ip mcst querier{enable | disable}**

Syntax

**ip mcst querier enable**

**{no ip mcst querier | ip mcst querier disable}**

To enable or disable the querier port in OLT, run **ip mcst querier enable**; to resume the default settings, run **no ip mcst querier | ip mcst querier disable**.

Parameter

None

Default value

The querier port of OLT is disabled.

Remarks

After the querier port of OLT is added, this port can transmit the query packets automatically in a regular time.

Example

The following example shows how to enable the querier port of OLT.

switch_config# ip mcst querier enable

## 1.1.9 **ip mcst querier address** *[ip_addr]*

Syntax

**ip mcst querier address** *ip_addr*

**no ip mcst querier address**

To set the source IP address of the automatic query packet, run **ip mcst querier address *ip_addr***. The negative form of this command is used to resume the default value.

Parameter

| Parameter | Parameter description |
|-----------|----------------------|
| *ip_addr* | IP address of a normal broadcast |

Default value

The default source IP address is 10.0.0.200.

Remarks

None

Example

The following example shows how to set the source IP address of the query packet to 11.1.1.200:

switch_config# ip mcst querier address 11.1.1.200

## 1.1.10 **ip igmp-proxy last-member-query {count *value1*| interval *value2*}**

Syntax

**ip igmp-proxy last-member-query {count *value1*| interval *value2*}**

**no ip igmp-proxy last-member-query {count | interval}**

To set the source IP address of the automatic query packet, run **ip igmp-proxy last-member-query {count *value1*| interval *value2*}**. The negative form of this command is used to resume the default value.

Parameter

| Parameter | Parameter description |
|-----------|----------------------|
| *value1* | 1-5 |
| *value2* | 1-60 seconds |

Default value

Both ***Value1*** and ***Value2*** are 2 by default.

Remarks

None

Example

The following example shows how to set **last-member-query count** to 3.

switch_config# ip igmp-proxy **last-member-query count 3**

### 1.1.11 **ip mcst compatible {enable | disable}**

Syntax

**ip mcst compatible enable**

**{no ip mcst compatible | ip mcst compatible disable}**

It is used to enable or disable the multicast-compatible function. The negative form of command is used to resume the default value.

Parameter

None

Default value

The multicast compatible function is disabled by default.

Remarks

After the multicast compatible mode is enabled, OLT can support the IGMP snooping multicast mode and the dynamic multicast mode by taking the LLID port as a unit. Only in the default mode can the multicast mode of OLT be set and OLT only supports one kind of multicast process at this case.

Example

The following example shows how to disable the multicast compatible function of OLT:

switch_config# ip mcst compatible disable

### 1.1.12 **ip mcst mode**

Syntax

**ip mcst mode {igmp-snooping | dynamic-controllable}**

**{no ip mcst mode | ip mcst igmp-snooping}**

It is used to switch over the multicast mode.

Parameter

None

Default value

**lgmp-snooping** mode

Remarks

After the OLT multicast mode is switched over, the multicast modes of all ONUs will be automatically switched over to the same mode. The users therefore are free of the trouble of setting ONUs one by one.

Example

The following example shows how to set the multicast mode to the controllable multicast:

switch_config# ip mcst mode dynamic-controllable

## 1.1.13 **ip mcst preview time**

Syntax

**ip mcst preview time (1 – 60 )**

**no ip mcst preview time**

Parameter

| Parameter | Parameter description |
|---|---|
| *time* | Stands for the preview time (minute). |
| | |
| | |

Default value

None

Remarks

**None**

Example

The following example shows how to set the preview time to 1.

switch_config#ip mcst previre time 1

## 1.1.14  **show ip mcst**

Syntax

**show ip mcst**

Parameter

None

Default value

None

Remarks

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

Example

The following example shows how to display the information about the IGMP-snooping settings.

switch# show ip mcst

Global multicast configuration:

----------------------------------

Globally enable        : Enabled

Multicast mode          : IGMP Snooping

Dlf-frames filtering : Enabled

Querier                   : Disabled

Querier address        : 10.0.0.200

Router age              : 260 s

Response time         : 15 s

Router Port List:

-----------------

G0/4 (querier);

switch#

## 1.1.15 **show ip mcst timer**

Syntax

**show ip mcst timer**

Parameter

None

Default value

None

Remarks

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

Example

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

switch#**show ip mcst timers**

**Querier on port** G0/4**: 258**

**vlan 2 multicast address 0100.5e01.0101 response time : 13**

switch#

**Querier on port** G0/4**:** 251 means the timeout time of the ageing timer of the router.

**vlan 2 multicast address 0100.5e01.0101 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.

## 1.1.16 **show ip mcst groups**

Syntax

**show ip mcst groups**

Parameter

None

Default value

None

Remarks

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

Example

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

switch# show ip mcst timer

```
Vlan Group            Type      Port(s)
---- -------------- -------- -----------------------------------
2 225.1.1.1          LEARNING E0/1:1
switch#
```

## 1.1.17    show ip mcst statistics

Syntax

**show ip mcst statistics**

Parameter

None

Default value

None

Remarks

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

Example

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

```
switch#show ip mcst statistics
v1_packets:0        Number of the IGMPv1 packets
v2_packets:6        Number of the IGMPv2 packets
```

v3_packets:0          Number of the IGMPv3 packets
general_query_packets:5      Number of the general query packets
special_query_packets:0      Number of the special query packets
join_packets:6          Number of the report packets
leave_packets:0      Number of the Leave packets
err_packets:0          Number of the error packets

## 1.1.18    **show ip igmp-proxy**

### Syntax

**show ip igmp-proxy**

### Parameter

None

### Default value

None

### Remarks

This command is used to display the information about IGMP proxy.

### Example

The following example shows how to display the information about IGMP proxy.

switch#show ip igmp-proxy
Global IGMP proxy configuration
-------------------------------
Status                      : Disable
Last member query interval: 2
Last member query count    : 2
switch#

## 1.1.19    **debug ip mcst packet**

### Syntax

**debug ip mcst packet**

**no debug ip mcst packet**

Parameter

None

Default value

None

Remarks

This command is used to enable or disable the MCST packet.

Example

The following example shows how to enable the debugging switch of MCST packets.

switch# debug ip mcst packet
switch#

## 1.1.20    debug ip mcst timer

Syntax

**debug ip mcst timer**

**no debug ip mcst timer**

Parameter

None

Default value

None

Remarks

This command is used to enable or disable the MCST timer.

Example

The following example shows how to enable the MCST timer.

switch# debug ip mcst timer
switch#

## 1.1.21 **debug ip mcst timer**

Syntax

**debug ip mcst timer**

**no debug ip mcst timer**

Parameter

None

Default value

None

Remarks

This command is used to enable or disable the MCST timer.

Example

The following example shows how to enable the MCST timer.

switch# debug ip mcst timer
switch#

## 1.1.22 **debug ip mcst event**

Syntax

**debug ip mcst event**

**no debug ip mcst event**

Parameter

None

Default value

None

Remarks

This command is used to enable or disable the MCST event.

Example

The following example shows how to enable the MCST event.

switch# debug ip mcst event

## 1.1.23 **debug ip mcst error**

Syntax

**debug ip mcst error**

**no debug ip mcst error**

Parameter

None

Default value

None

Remarks

This command is used to enable or disable the MCST error.

Example

The following example shows how to enable the error debugging switch of IGMP snooping.

switch# debug ip mcst error

## 1.1.24 **debug ip igmp-proxy**

Syntax

**debug debug ip igmp-proxy**

**no debug ip igmp-proxy**

Parameter

None

Default value

None

Remarks

It is used to enable or disable the debugging switch of IGMP proxy.

Example

The following example shows how to enable the debugging switch of IGMP proxy.

switch# debug ip igmp-proxy
switch#

# Chapter 2   **Commands for OLT MLD Multicast Settings**

The OLT MLD multicast configuration commands include:

- **ip mld-snooping {enable | disable}**

- **ip mld-snooping mc-vlan** *vlan_id*   **range** *X:X:X:X::X*&<1-n>

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

- **ip mld-snooping timer**   **router-age**   *timer_value*

- **ip mld-snooping timer response-time** *timer_value*

- **ip mld-snooping mrouter** interface *inft_name*

- **ip mld-proxying enable**

- **ip mld-proxying querier address** *ip_addr*

- **ip mld-proxying last-member-query {count** *value1***| interval** *value2***}**

- **show ip mld-snooping**

- **show ip mld-snooping timer**

- **show ip mld-snooping groups**

- **show ip mld-snooping statistics**

- **show ip mld-proxying**

## 2.1.1   **ip mld-snooping {enable | disable}**

Syntax

**ip mld-snooping enable**

**{no ip mld-snooping | ip mld-snooping disable}**

To set the MLD snooping function, run **ip mld-snooping enable**; to resume the default value, run **{no ip mld-snooping | ip mld-snooping disable}**.

Parameter

None

Default value

The MLD snooping is disabled.

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# ip mld-snooping enable

## 2.1.2 **ip mld-snooping solicitation**

Syntax

**ip mld-snooping solicitation**

**no ip 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#**ip mld-snooping solicitation**

### 2.1.3  **ip mld-snooping mc-vlan** *vlan_id*  **range** *A.B.C.D*&<1-n>

Syntax

**ip mld-snooping mc-vlan** *vlan_id*  **range** *X:X:X:X::X*&<1-n>

**no ip mld-snooping mc-vlan** *vlan_id*  *[***range** *X:X:X:X::X*&<1-n>**]**

Parameter

| Parameter | Parameter description |
|-----------|----------------------|
| *vlan_id* | VLAN ID |
| *X:X:X:X::X* | IP address of the multicast |

Default value

None

Remarks

**This command has two functions: one is that only the Report and Leave packets whose destination IP addresses have been added to a multicast VLAN can be received by MLD snooping; the other one is that the VLAN tag which transforms the next multicast flow is the multicast VLAN tag. One multicast VLAN can include multiple continuous or discontinuous multicast IP addresses, while one multicast IP address can only belong to one multicast VLAN.**

Example

The following command shows how to add multicast group ff12::5 to multicast VLAN2:

switch_config#ip mld-snooping mc-vlan 2 range ff12::5

### 2.1.4  **ip mld-snooping vlan** *vlan_id*  **static** *X:X:X:X::X* **interface** *intf*

Syntax

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

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

Parameter

| 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 port EPON0/1:1.

switch_config# ip mld-snooping vlan 1 static ff12::5 interface EPON0/1:1
switch_config#

## 2.1.5 ip mld-snooping timer  router-age  *timer_value*

Syntax

**ip mld-snooping timer   router-age**  *timer_value*

**no ip mld-snooping timer router-age**

Parameter

| 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# ip mld-snooping timer router-age 300

switch_config#

## 2.1.6 **ip mld-snooping timer response-time** *timer_value*

Syntax

**ip mld-snooping timer response-time** *timer_value*

**no ip 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 | 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# ip mld-snooping timer response-time 20

## 2.1.7 **ip mld-snooping mrouter** interface *inft_name*

Syntax

**ip mld-snooping mrouter** interface *inft_name*

**no ip mld-snooping mrouter** interface *inft_name*

To configure the port of the static multicast router of IGMP snooping, run **ip mcst mrouter interface** *inft_name*.

Parameter

| Parameter | Parameter description |
|---|---|
| | |

| 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 port G0/4 to the port of the static multicast router of MLD snooping.

switch_config# ip mld-snooping timer mrouter interface G0/4

## 2.1.8  ip mld-proxying enable

Syntax

**ip igmp-proxy enable**

**{no ip igmp-proxy enable}**

To enable IGMP proxy, run **ip igmp-proxy enable**. To resume the default value, run **{no ip igmp-proxy enable}**.

Parameter

None

Default value

The MLD proxy is disabled by default.

Remarks

None

Example

The following example shows how to enable the MLD proxy:

switch_config# ip igmp-proxy enable

### 2.1.9 **ip mld-proxying querier address** *[ip_addr]*

Syntax

**ip mld-proxying querier address** *ip_addr*

**no ip mld-proxying querier address**

To set the source IP address of the automatic query packet, run **ip mcst querier address** *ip_addr*. The negative form of this command is used to resume the default value.

Parameter

| Parameter | Parameter description |
|---|---|
| *ip_addr* | IP address of a normal broadcast |

Default value

源 IP 地址默认为 FE80::3FF:FEFE:FD00:1。

Remarks

None

Example

The following example shows how to set the source IP address of the query packet to FE80::3FF:FEFE:FD00:2:

switch_config# ip mld-proxying querier address FE80::3FF:FEFE:FD00:2

### 2.1.10 **ip mld-proxying last-member-query {count** *value1***| interval** *value2***}**

Syntax

**ip mld-proxying last-member-query {count** *value1***| interval** *value2***}**

**no ip mld-proxying last-member-query {count | interval}**

To set the source IP address of the automatic query packet, run **ip mld-proxying last-member-query {count** *value1***| interval** *value2***}**. The negative form of this command is used to resume the default value.

Parameter

| Parameter | Parameter description |
|---|---|

| value1 | 1-5 |
|--------|-----|
| value2 | 1-60 seconds |

Default value

Both *Value1* and *Value2* are 2 by default.

Remarks

None

Example

The following example shows how to set **last-member-query count** to 3.

switch_config# ip mld-proxying **last-member-query count 3**

## 2.1.11    **show ip mld-snooping**

Syntax

**show ip 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 ip mld-snooping**

Global multicast configuration:

----------------------------------

Globally enable       : Disabled

Multicast mode        : MLD Snooping

Dlf-frames filtering : Disabled

Router age           : 260 s
Response time        : 10 s
Handle Solicitation   : Disabled

Router Port PVID VLANMAP=

Router Port List:
----------------

None

switch#

## 2.1.12    show ip mld-snooping timer

Syntax

**show ip 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 ip mld-snooping timers**

**Querier on port** G0/4**: 258**

**vlan 2 multicast address 3333.0000.0005 response time : 13**

switch#

**Querier on port** G0/4**:** 251 means the timeout time of the ageing timer of the router.

**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.

## 2.1.13    **show ip mld-snooping groups**

Syntax

**show ip 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 ip mld-snooping timer

```
Vlan Group           Type      Port(s)
---- -------------- -------- -----------------------------------
2 ff12::5           LEARNING E0/1:1
switch#
```

## 2.1.14    **show ip mld-snooping statistics**

Syntax

**show ip 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 ip mld-snooping statistics
v1_packets:0          Number of the IGMPv1 packets
v2_packets:6          Number of the IGMPv2 packets
v3_packets:0          Number of the IGMPv3 packets
general_query_packets:5     Number of the general query packets
special_query_packets:0     Number of the special query packets
listener_packets:6     Number of the Report packets
leave_packets:0     Number of the Leave packets
err_packets:0     Number of the error packets

## 2.1.15   show ip mld-proxying

Syntax

**show ip mld-proxying**

Parameter

None

Default value

None

Remarks

This command is used to display the information about MLD proxy.

Example

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

switch#show ip mld-proxying
Global MLD Proxying configuration
-------------------------------
Status                : Disable
Last member query interval: 1
Last member query count    : 2

Querier address            : FE80::3FF:FEFE:FD00:1

switch#

# Chapter 3    Remote Configuration Commands for ONU Multicast

The IGMP-Snooping configuration commands include:

- **epon onu mcst enable**

- **epon onu mcst switch**

- **epon onu ctc mcst fast-leave enable**

- **epon onu port *port_id* ctc mcst tag-stripe enable**

- **epon onu port *port_id* ctc mcst max-group-number *value***

- **epon onu port *port_id* ctc mcst mc-vlan {add *vlanmap*| delete *vlanmap*|clear}**

## 3.1.1    **epon onu mcst enable**

Syntax

**epon onu mcst enable**

**{no epon onu mcst | epon onu mcst disable}**

To enable and disable the IGMP snooping function, run **epon onu mcst enable**; to resume the default value, run **{no epon onu mcst | epon onu mcst disable}**.

Parameter

None

Default value

The IGMP snooping is disabled.

Remarks

After IGMP snooping is enabled, when DLF occurs on multicast packets (that is, the destination address is not registered in the swap chip through the igmp-snooping), all multicast packets whose destination addresses are not registered on any port will be dropped. ONU only supports IGMP snooping V1 and IGMP snooping V2.

Example

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

switch_config#interface e0/1:1
switch_config_e0/1:1#epon onu mcst enable

### 3.1.2 **epon onu ctc mcst switch**

Syntax

**epon onu ctc mcst switch { dynamic-controllable | igmp-snooping }**

**no epon onu ctc mcst switch**

To enable the ONU multicast mode, run **epon onu ctc mcst switch { dynamic-controllable | igmp-snooping }**; to resume the default value, run **no epon onu ctc mcst switch**.

Parameter

None

Default value

The ONU multicast mode is IGMP snooping by default.

Remarks

None

Example

The following example shows how to switch the ONU multicast mode over to the controllable multicast:

switch_config#interface e0/1:1
switch_config_epon0/1:1#epon onu ctc mcst switch **dynamic-controllable**

### 3.1.3 **epon onu ctc mcst fast-leave enable**

Syntax

**epon onu ctc mcst fast-leave enable**

**{no epon onu ctc mcst fast-leave | epon onu ctc mcst fast-leave disable}**

To configure the fast-leave attribute, run **epon onu ctc mcst fast-leave enable**; to resume the default value, run **{no epon onu ctc mcst fast-leave | epon onu ctc mcst fast-leave disable}**.

Parameter

None

Default value

The **fast-leave** attribute is enabled by default.

Remarks

The configuration of the **fast-leave** attribute makes the ONU delete the corresponding port in the port list of the corresponding multicast group shortly after ONU receives the **leave** packet, while the timer is not enabled any more for waiting to see whether other hosts will be added to the multicast group; if other hosts of a same port also belong to this multicast group and are reluctant to leave, the multicast communication of these hosts may be affected and in this case the **fast-leave** function should not be enabled.

Example

The following example shows how to disable the **fast-leave** attribute.

switch_config_epon0/1:1#epon onu ctc mcst fast-leave disable

## 3.1.4    **epon onu ctc mcst premission**

Syntax

**ip mcst permission uni** *uni-index* **range** *A.B.C.D*&<1-n> **{permit | preview| forbidden}**

**no ip mcst permission uni** *uni-index* **range** *A.B.C.D*&<1-n>

Parameter

| Parameter | Parameter description |
|---|---|
| *uni-index* | UNI 端口索引| |
| *A.B.C.D* | IP address of the multicast |
| | |

Default value

None

Remarks

**None**

Example

The following example shows how to configure UNI 1 of ONU to forward the multicast flow of the multicast 225.1.1.1.

switch_config#ip mcst permission interface E3/1:2 uni 1 range 225.1.1.1 permit

## 3.1.5 **epon onu port *port_id* ctc mcst tag-stripe enable**

Syntax

**epon onu port *port_id* ctc mcst tag-stripe enable**

**{no epon onu port *port_id* ctc mcsttag-stripe | epon onu port *port_id* ctc mcst tag-stripe disable}**

To configure the tag-stripe attribute, which is used to remove the VLAN tag of the next multicast packet that ONU receives, run **epon onu port *port_id* ctc mcst tag-stripe enable**.

Parameter

| Parameter | Parameter description |
|-----------|----------------------|
| *port_id* | UNI ID of ONU |

Default value

Disable

Remarks

None

Example

The following example shows how to enable the Tag-Stripe function on UNI1 of ONU.

switch_config_epon0/1:1#epon onu port 1 ctc mcst tag-stripe enable

### 3.1.6 **epon onu port *port_id* ctc mcst max-group-number *value***

Syntax

**epon onu port *port_id* ctc mcst max-group-number *value***

**no epon onu port *port_id* ctc mcst** max-group-number

To configure the **max-group-number** attribute, which enables the UNI port of ONU to limit the number of the concurrently forwarded multicast groups, run **epon onu port *port_id* ctc mcst max-group-number *value***.

Parameter

| Parameter | Parameter description |
|-----------|----------------------|
| *port_id* | UNI ID of ONU |
| *value* | Maximum number of multicast groups |

Default value

***The default value is 128.***

Remarks

None

Example

The following example shows how to configure UNI1 of ONU to allow 64 concurrent multicast flows simultaneously: 1 最多同时允许 64 条组播流。

switch_config_epon0/1:1#epon onu port 1 ctc mcst max-group-number 64

### 3.1.7 **epon onu port *port_id* ctc mcst mc-vlan {add *vlanmap*| delete *vlanmap*|clear}**

Syntax

**epon onu port *port_id* ctc mcst mc-vlan {add *vlanmap*| delete *vlanmap*|clear}**

To configure the correlation of the UNI port and the multicast VLAN so that ONU can remove the VLAN tag of the downlink multicast packets, run the command above.

Parameter

| Parameter | Parameter description |
|-----------|----------------------|

| | |
|---|---|
| *vlanmap* | VLAN bitmap |

Default value

None

Remarks

None

Example

The following example shows how to configure UNI 1 of ONU to forward the multicast flow of the multicast VLAN2.

switch_config_e0/1:1#epon onu port 1 ctc mcst mc-vlan add 2