

MLD Proxy

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ipv6 mld-proxy ssm

To define the Source Specific Multicast (SSM) range of IP Multicast addresses, use the **ipv6 mld-proxy ssm** command in Global Configuration mode. To disable the SSM range, use the **no** form of this command.

Syntax

ipv6 mld-proxy ssm {**default** | **range** *access-list*}

no ipv6 mld-proxy ssm

Parameters

default—Defines the SSM range access list to FF3x::/32 (see rfc4607).

range *access-list*—Specifies the standard IPv6 access list name defining the SSM range.

Default Configuration

The command is disabled.

Command Mode

Global Configuration mode

User Guidelines

A new **ipv6 mld-proxyssm** command overrides the previous **ipv6 mld-proxy ssm** command.

Use the **no ipv6 mld-proxy ssm** command to remove all defined ranges.

Example

The following example shows how to configure SSM service for the default IPv6 address range and the IPv6 address ranges defined by access lists **list1**:

```
switchxxxxxx(config)# ipv6 access-list list1 permit FF7E:1220:2001:DB8::/64
switchxxxxxx(config)# ipv6 access-list list1 deny FF7E:1220:2001:DB1::1
switchxxxxxx(config)# ipv6 access-list list1 permit FF7E:1220:2001:DB1::/64
switchxxxxxx(config)# ipv6 pim mld-proxy range list1
```

ipv6 mld-proxy

To add downstream interfaces to a MLD proxy tree, use the **ip mld-proxy** command in Interface Configuration mode. To remove downstream from interfaces to a MLD proxy tree, use the **no** form of this command.

Syntax

ipv6 mld-proxy *upstream-interface-id*

no ipv6 mld-proxy

Parameters

- ***upstream-interface-id***—Upstream Interface identifier.

Default Configuration

The protocol is disabled on the interface.

Command Mode

Interface Configuration mode

User Guidelines

Use the **ipv6 mld-proxy** command to add a downstream interface to a MLD proxy tree. If the proxy tree does not exist it is created.

Use the **no** format of the command to remove the downstream interface. When the last downstream interface is removed from the proxy tree it is deleted too.

Example 1. The following example adds a downstream interface to a MLD Proxy process with vlan 200 as its Upstream interface:

```
switchxxxxxx(config)# interface vlan 100
switchxxxxxx(config-if)# ipv6 mld-proxy vlan 200
switchxxxxxx(config-if)# exit
```

Example 2. The following example adds a range of downstream interfaces to an IGMP Proxy process with vlan 200 as its Upstream interface:

```
switchxxxxxx(config)# interface range vlan 100-105
switchxxxxxx(config-if)# ipv6 mld-proxy vlan 200
switchxxxxxx(config-if)# exit
```

ipv6 mld-proxy downstream protected

To disable forwarding of IPv6 Multicast traffic from downstream interfaces, use the **ipv6 mld-proxy downstream protected** command in Global Configuration mode. To allow forwarding from downstream interfaces, use the **no** form of this command.

Syntax

ipv6 mld-proxy downstream protected

no ipv6 mld-proxy downstream protected

Parameters

This command has no arguments or keywords.

Default Configuration

Forwarding from downstream interfaces is allowed.

Command Mode

Global Configuration mode

User Guidelines

Use the **pv6 mld-proxy downstream protected** command to block forwarding from downstream interfaces.

Example

The following example prohibits forwarding from downstream interfaces:

```
switchxxxxxx(config)# ipv6 mld-proxy downstream protected
```

ipv6 mld-proxy downstream protected interface

To disable or enable forwarding of IPv6 Multicast traffic from a given downstream interface, use the **ipv6 mld-proxy downstream protected interface** command in Interface Configuration mode. To return to default, use the **no** form of this command.

Syntax

ipv6 mld-proxy downstream protected interface {enabled | disabled}

no ipv6 mld-proxy downstream protected interface

Parameters

- **enabled**—Downstream interface protection on the interface is enabled. IPv6 Multicast traffic arriving on the interface will not be forwarded.
- **disabled**—Downstream interface protection on the interface is disabled. IPv6 Multicast traffic arriving on the interface will be forwarded.

Default Configuration

Global downstream protection configuration (see the **ipv6 mld-proxy downstream protected** command)

Command Mode

Interface Configuration mode

User Guidelines

Use the **ipv6 mld-proxy downstream protected interface disabled** command to block forwarding from the given downstream interface.

Use the **ipv6 mld-proxy downstream protected interface enabled** command to allow forwarding from the given downstream interface.

The command can be configured only for a downstream interface. When a downstream interface is removed from the MLD Proxy tree the configuration is removed too.

Example

The following example prohibits forwarding from downstream interface vlan 100:

```
switchxxxxxx(config)# interface vlan100
switchxxxxxx(config-if)# ipv6 mld-proxy downstream protected interface enabled
switchxxxxxx(config-if)# exit
```

show ipv6 mld-proxy interface

To display information about interfaces configured for MLD Proxy, use the **show ipv6 mld-proxy interface** command in User EXEC mode or Privileged EXEC mode.

Syntax

show ipv6 mld-proxy interface [*interface-id*]

Parameters

- ***interface-id***—(Optional) Display MLD Proxy information about the interface.

Command Mode

User EXEC mode

Privileged EXEC mode

User Guidelines

The **show ipv6 mld-proxy interface** command is used to display all interfaces where the MLD Proxy is enabled or to display the MLD Proxy configuration for a given interface.

Example 1. The following example displays MLD Proxy status on all interfaces where the MLD Proxy is enabled:

```
switchxxxxxx# show ip mld-proxy interface
```

* - the switch is the Querier on the interface

```
IPv6 Forwarding is enabled
IPv6 Multicast Routing is enabled
MLD Proxy is enabled
Global Downdtream interfaces protection is disabled
SSM Access List Name: list1
Interface  Type         Dicarding IPv6 Multicast
 vlan 100  upstream
*vlan 102  downstream   enabled
*vlan 110  downstream   default
 vlan 113  downstream   disabled
```

Example 2. The following is sample output from the **show ipv6 mld-proxy interface** command for given upstream interface:

```
switchxxxxxx# show ipv6 mld-proxy interface vlan 100
```

* - the switch is the Querier on the interface

```
IPv6 Forwarding is enabled
IPv6 Multicast Routing is enabled
MLD Proxy is enabled
Global Downdtream interfaces protection is disabled
SSM Access List Name:
vlan 100 is a Upstream interface
Downstream interfaces:
 *vlan 102, *vlan 110, vlan 113
```

Example 3. The following is sample output from the **show ipv6 mld-proxy interface** command for given downstream interface:

```
switchxxxxxx# show ipv6 mld-proxy interface vlan 102
IPv6 Forwarding is enabled
IPv6 Multicast Routing is enabled
MLD Proxy is enabled
Global Downdtream interfaces protection is disabled
SSM Access List Name: default
vlan 102 is a Downstream interface
The switch is the Querier on vlan 102
Upstream interface: vlan 100
```

Example 4. The following is sample output from the **show ipv6 mld-proxy interface** command for an interface on which IGMP Proxy is disabled:

```
switchxxxxxx# show ipv6 mld-proxy interface vlan 1
IPv6 Forwarding is enabled
IPv6 Multicast Routing is enabled
MLD Proxy is disabled
```