Redundant Multicast DEPI Pool

This document describes how to configure redundant multicast DEPI pool.

Finding Feature Information

Your software release may not support all the features documented in this module. For the latest feature information and caveats, see the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the Feature Information Table at the end of this document.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to http://tools.cisco.com/ITDIT/CFN/. An account on http://www.cisco.com/ is not required.

Hardware Compatibility Matrix for Cisco Remote PHY Device

Note Unless otherwise specified, the hardware components introduced in a given Cisco Remote PHY Device Software Release are supported in all subsequent releases.

Table 1: Hardware Compatibility Matrix for the Cisco 2x2 Remote PHY Device

Cisco HFC Platform	Remote PHY Device
Cisco GS7000 BAU	Cisco 2x2 RPD Software 2.x and Later Releases Cisco Remote PHY Device 2x2 PID—RPD-2X2=

Redundant Multicast DEPI Pool

In DS sharing, the DS controller of the secondary line card uses the same multicast IP address as the primary line card DS controller. For a single RPD, the principal and standby Cores use different source IP addresses, but same group IP address in a multicast group. However, the NCS switch does not support one Group with multiple Sources in a multicast group. Hence, you must assign additional multicast IP addresses for standby cores.

Assign the additional multicast IP addresses to the DS controllers on the secondary line cards if the secondary line card is up.

When you enable the redundant multicast DEPI pool, the secondary line card is up in the redundancy line card group and the multicast IP addresses are assigned to secondary line card from the redundant multicast pool. All RPDs on standby cores are automatically cleared to be offline and later online again.

When you disable the redundant multicast pool, the IP addresses are removed from the redundant multicast pool, and all the RPD standby cores are cleared automatically. If you do not configure redundant pool, the secondary line card downstream controllers use the same IP as the downstream controllers in the primary line card.

You cannot use the redundant multicast pool in the downstream controller profile configuration.

Multicast IP address for the secondary line card is assigned based on the DS controller and the TenGE port. One DS controller can be assigend 8 IPv4/IPpv6 addresses from Tx/1/0 to Tex/1/7, where x is the secondary line card slot number. Hence, the redundant multicast DEPI pool needs a minimum of 266 IP addresses (32 controller for 8 ports for DOCSIS, 10 for OOB). If 266 IP addresses are not available, you can assign 4 IPv4/IPv6 addresses to the ports 0,2,4,6 on a single DS controller for multicast DEPI IP addresses on the secondary line card.

Configure Redundant Multicast DEPI Pool

This section describes how to configure the redundant multicast DEPI pool on Cisco cBR-8 routers.

Note To know more about the commands referenced in this section, see the Cisco IOS Master Command List.

Configuring Redundant Multicast DEPI Pool

When a secondary line card is configured, multicast IP addresses are assigned to its downstream controllers from the redundant multicast DEPI pool.

Procedure

Step 1 Configure the multicast DEPI pool by using the following command:

```
configure terminal
cable depi multicast pool id{ip|ipv6} address ip mask
```

Step 2 Verify the multicast DEPI pool configuration.

`show cable depi multicast pool`

Example:

```
show cable depi multicast pool
Load for five secs: 7%/1%; one minute: 7%; five minutes: 7%
No time source, *15:57:05.512 CST Wed Aug 22 2018
POOL ID     Net IP            Net Mask          Redundant DESCRIPTION
1           227.0.0.0         255.255.255.0     FALSE
127         227.226.225.0     255.255.255.0     FALSE      to TE9/1/1+TE9/1/7

POOL ID     IPv6              Redundant DESCRIPTION
10          FF3A::9000:0/120  FALSE
```

Step 3 Configure the redundant multicast DEPI pool.

`configure terminal`
` cable depi multicast pool ` *`id`*
`redundant`

Step 4 Verify the redundant multicast DEPI pool configuration.

show cable depi multicast pool

Example:

```
show cable depi multicast pool
Load for five secs: 7%/1%; one minute: 7%; five minutes: 7%
No time source, *16:27:05.552 CST Wed Aug 22 2018
POOL ID     Net IP            Net Mask          Redundant DESCRIPTION
1           227.0.0.0         255.255.255.0     FALSE
127         227.226.225.0     255.255.255.0     FALSE      to TE9/1/1+TE9/1/7

POOL ID     IPv6              Redundant DESCRIPTION
10          FF3A::9000:0/120  TRUE
```

Verify Assigned Multicast IP Addresses

Verify the multicast addresses that are assigned to the secondary linecard downstream controllers by running the `show cable depi multicast ip/ipv6 all` command, similar to the following example:

```
show cable depi multicast ipv6 all
Load for five secs: 6%/0%; one minute: 6%; five minutes: 7%
No time source, *14:23:14.522 CST Tue Aug 28 2018
IPv6              POOL ID     CONTROLLER
FF3E::8140:0      20          0/0/0(1-Te0/1/0)
FF3E::8140:8      20          0/0/1(2-Te0/1/0)
FF3E::8140:10     20          0/0/2(3-Te0/1/0)
FF3E::8140:18     20          0/0/3(4-Te0/1/0)
FF3E::8140:20     20          0/0/4(5-Te0/1/0)
FF3E::8140:28     20          0/0/5(6-Te0/1/0)
FF3E::8140:30     20          0/0/6(7-Te0/1/0)
......
```

Feature Information for Redundant Multicast DEPI Pool

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Note The below table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Table 2: Feature Information for Redundant Multicast DEPI Pool

Feature Name	Releases	Feature Information
Redundant Multicast DEPI Pool	Cisco 2x2 RPD Software 2.x	This feature was introduced in the Cisco 2x2 Remote PHY Device.