Link Layer Discovery Protocol

This document describes how to display the RPD LLDP neighbors and counters information. It also describes how to use the **show lldp neighbors/statistics** command.

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 Remote PHY Device

Cisco HFC Platform	Remote PHY Device
Cisco GS7000 Super High Output Node	Cisco 1x2 / Compact Shelf RPD Software 2.1 and Later Releases

Cisco HFC Platform	Remote PHY Device
Cisco GS7000 Super High Output Intelligent Node (iNode)	Cisco 1x2 / Compact Shelf RPD Software 4.1 and Later Releases Cisco Intelligent Remote PHY Device 1x2 • PID—iRPD-1X2= • PID—iRPD-1X2-PKEY=

Note   The -PKEY suffix in the PID indicates units that enable the SCTE-55-2 Out-of-Band protocol support.

Link Layer Discovery Protocol

LLDP (Link Layer Discovery Protocol) is a vendor-neutral link layer protocol in the Internet Protocol Suite used by network devices for advertising their identities and capabilities on an IEEE 802 local area network, principally wired Ethernet.

In Cisco 1x2 / Compact Shelf RPD Software 6.1, LldpEnable TLV is introduced to enable or disable the LLDP protocol.

This TLV will be documented in a forthcoming revision of the Cablelabs Remote PHY Specification. The TLV Type is 15.6.1. A Boolean value is defined to enable/disable LLDP operation on the RPD. 0 means LLDP is disabled. 1 means LLDP is enabled. Default value is 1.

Displaying LLDP Status

To display RPD LLDP neighbors and counters information, use **show lldp neighbors/statistics** command as shown in the following example.

```
R-PHY#show lldp neighbors
-------------------------------------------------------------------------------
LLDP neighbors:
-------------------------------------------------------------------------------
Interface:    eth0, via: LLDP, RID: 1, Time: 0 day, 21:10:24
  Chassis:
    ChassisID:    mac 00:1c:0e:82:c3:26
    SysName:      K02-NM-SW.cisco.com
    SysDescr:     Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 12.2(37)SE,
 RELEASE SOFTWARE (fc2)
                  Copyright (c) 1986-2007 by Cisco Systems, Inc.
                  Compiled Thu 10-May-07 16:43 by antonino
    MgmtIP:       10.74.54.231
    Capability:   Bridge, off
    Capability:   Router, off
  Port:
    PortID:       local Fa0/38
    PortDescr:    FastEthernet0/38
-------------------------------------------------------------------------------
Interface:    vbh0, via: LLDP, RID: 2, Time: 0 day, 04:12:02
```

```
   Chassis:
     ChassisID:      mac 00:de:fb:95:17:01
     SysName:        Cloud-Leaf-C
     SysDescr:       Cisco NX-OS(tm) n6000, Software (n6000-uk9), Version 7.3(3)N1(1), Interim
 version 7.3(3)N1(0.535), RELEASE SOFTWARE Copyright (c) 2002-2012, 2016-2017 by Cisco
Systems, Inc. Compiled 11/18/2017 2:00:00
     MgmtIP:         10.74.54.173
     Capability:     Bridge, on
   Port:
     PortID:         local Eth1/26
     PortDescr:      Ethernet1/26
   UnknownTLVs:
     TLV:            OUI: 00,01,42, SubType: 1, Len: 1 01
     TLV:            OUI: 00,01,42, SubType: 2, Len: 16
24,00,24,00,24,00,24,00,24,00,24,00,24,00
     TLV:            OUI: 00,01,42, SubType: 6, Len: 4 06,00,00,00
-------------------------------------------------------------------------------

R-PHY#show lldp statistics
-------------------------------------------------------------------------------
LLDP statistics:
-------------------------------------------------------------------------------
Interface:    eth0
  Transmitted: 5099
  Received:    3818
  Discarded:   0
  Unrecognized: 6
  Ageout:      0
  Inserted:    2
  Deleted:     0
-------------------------------------------------------------------------------
Interface:    vbh0
  Transmitted: 2548
  Received:    2554
  Discarded:   6
  Unrecognized: 8
  Ageout:      0
  Inserted:    1
  Deleted:     0
-------------------------------------------------------------------------------
```

If the LLDP is disabled, the output of the **show lldp statistics** command will be:

```
R-PHY#show lldp statistics
lldp disabled
```

Feature Information for LLDP

Use Cisco Feature Navigator to find information about platform support and software image support.
Cisco Feature Navigator enables you to determine which software images support a specific software release,
feature set, or platform. To access Cisco Feature Navigator, go to http://tools.cisco.com/ITDIT/CFN/. An
account on http://www.cisco.com/ is not required.

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 LLDP

Feature Name	Releases	Feature Information
LLDP	Cisco 1x2 / Compact Shelf RPD Software 5.4	This feature was integrated into the Cisco Remote PHY Device.
Disable LLDP by TLV	Cisco 1x2 / Compact Shelf RPD Software 6.1	This feature was integrated into the Cisco Remote PHY Device.