



Link Layer Discovery Protocol (LLDP) Command Reference

This chapter describes the commands to configure LLDP.

- [lldp](#), on page 2
- [lldp holdtime](#), on page 3
- [lldp reinit](#), on page 4
- [lldp timer](#), on page 5
- [lldp tlv-select](#), on page 6
- [receive disable](#), on page 7
- [transmit disable](#), on page 8
- [show lldp](#), on page 9
- [show lldp interface](#), on page 10
- [show lldp neighbors](#), on page 11
- [show lldp neighbors detail](#), on page 13

lldp

To enable the Link Layer Discovery Protocol (LLDP) globally for both transmit and receive operation on the system, use the **lldp** command in XR Config mode. To disable LLDP, use the **no** form of this command.

lldp

no lldp

Syntax Description	lldp	Enables or disables LLDP globally for both transmit and receive operation on the system.
Command Default	None	
Command Modes	Config mode	
Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.	
Task ID	Task ID	Operation
	ethernet-services	read, write

Example

The following example shows how to enable LLDP globally for both transmit and receive operation on a system.:

```
RP/0/RP0:hostname# configure
RP/0/RP0:hostname(config)# lldp
```

lldp holdtime

Use the **lldp holdtime** command to specify the hold time for the receiving device to hold the information from an LLDP packet before aging and removing it. To return to the default, use the **no** form of this command.

lldp holdtime *seconds*

no lldp holdtime

Syntax Description	seconds	Specify the time in seconds to hold the packet information. Default value: 120
Command Default	None	
Command Modes	Config mode	
Usage Guidelines	None	
Task ID	Task ID	Operation
	ethernet-services	read, write

Example

The following example shows how to specify the hold time:

```
RP/0/RP0:hostname(config)# lldp holdtime 60
```

Topic 2.1

lldp reinit

Use the **lldp reinit** command to specify the time to delay the initialization of LLDP on an interface. To return to the default, use the **no** form of this command.

lldp reinit *seconds*

no lldp reinit

Syntax Description	seconds	Specify the time in seconds for which LLDP should delay initialization. Default value: 2
--------------------	---------	---

Command Default	None
-----------------	------

Command Modes	Config mode
---------------	-------------

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.
------------------	---

Task ID	Task ID	Operation
	ethernet-services	read, write

Example

The following example shows how to specify the time to delay the initialization of LLDP on an interface:

```
RP/0/RP0:hostname(config)# lldp reinit 4
```

lldp timer

Use the **lldp timer** command to specify the interval at which the device sends LLDP packets to neighboring devices. To return to the default, use the **no** form of this command.

lldp timer *seconds*

no lldp timer

Syntax Description	seconds Specify the interval in seconds. Default value: 30	
Command Default	None	
Command Modes	Config mode	
Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.	
Task ID	Task ID	Operation
	ethernet-services	read, write

Example

The following example shows how to LLDP time interval:

```
RP/0/RP0:hostname(config)# lldp timer 60
```

lldp tlv-select

Use the **lldp tlv-select** command to disable transmission of the selected Type Length Value (TLV) in LLDP packets. To return to the default, use the **no** form of this command.

lldp tlv-select *tlv-name* **disable**

no lldp tlv-select

Syntax Description	<i>tlv-name</i>	Name of the TLV to be suppressed from LLDP packets. Valid TLV values: • management-address • port-description • system-capabilities • system-description • system-name
	disable	Disables the specified TLV.

Command Default None

Command Modes Config mode

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID	Task ID	Operation
	ethernet-services	read, write

Example

The following example shows how to disable transmission of the *system-capabilities* TLV from LLDP packets:

```
RP/0/RSP0/CPU0:router(config)# lldp tlv-select system-capabilities disable
```

receive disable

Use the **receive disable** command to disable the reception of LLDP packets on an interface. To return to the default, use the **no** form of this command.

receive disable

no receive disable

Syntax Description	This command has no arguments or keywords.	
Command Default	None	
Command Modes	LLDP configuration	
Usage Guidelines	None	
Task ID	Task ID	Operation
	ethernet-services	read, write

Example

The following example shows how to disable LLDP receive operations on an interface:

```
RP/0/RP0:hostname(config-if)# lldp
RP/0/RP0:hostname(config-if-lldp)# receive disable
```

transmit disable

Use the **transmit disable** command to disable the transmission of LLDP packets from an interface. To return to the default, use the **no** form of this command.

transmit disable

no transmit disable

Syntax Description	This command has no arguments or keywords.	
Command Default	None	
Command Modes	LLDP configuration	
Usage Guidelines	None	
Task ID	Task ID	Operation
	ethernet-services	read, write

Example

The following example shows how to disable LLDP receive operations on an interface:

```
RP/0/RP0:hostname(config-if)# lldp
RP/0/RP0:hostname(config-if-lldp)# transmit disable
```


show lldp

Use the **show lldp** command to display the global LLDP configuration status and the operational characteristics of the system.

show lldp

Syntax Description	This command has no arguments or keywords.	
Command Default	None	
Command Modes	LLDP configuration	
Command History	Release	Modification
	Release 6.5.33	This command was introduced.
Usage Guidelines	The show lldp command displays the LLDP status and operational characteristics when LLDP is enabled globally on the system using the lldp command. The settings for the following commands are displayed: • lldp timer • lldp holdtime • lldp reinit	
Task ID	Task ID	Operation
	ethernet-services	read, write

Example

The following example shows how to display the default LLDP operational characteristics when LLDP is enabled globally on the system:

```
RP/0/RP0:hostname# show lldp
Wed Dec 13 06:16:45.510 DST
Global LLDP information:
Status: ACTIVE
LLDP advertisements are sent every 30 seconds
LLDP hold time advertised is 120 seconds
LLDP interface reinitialisation delay is 2 seconds
```

show lldp interface

Use the **show lldp interface** display LLDP configuration and status information on an interface.

show lldp interface *type interface-path-id*

Syntax Description	<i>type</i>	Specify the interface type.
	<i>interface-path-id</i>	Specify the physical interface or virtual interface ID in the rack/slot/module notation.
Note Use the show interfaces command to see a list of all interfaces currently configured on the router.		

Command Default LLDP configuration and status information for all interfaces is displayed.

Command Modes EXEC mode

Task ID	Task ID	Operation
	ethernet-services	read

Example

The following example shows sample output for the **show lldp interface** command for the Ten Gigabit Ethernet interface at 0/1/0/7:

```
RP/0/RP0:hostname# show lldp interface TenGigE 0/1/0/7
Wed Dec 13 13:22:30.501 DST
  TenGigE0/1/0/7:
    Tx: enabled
    Rx: enabled
    Tx state: IDLE
    Rx state: WAIT FOR FRAME
```

Table 1: show lldp interface Field Descriptions

Field	Description
Tx:	Configuration status of the interface to transmit LLDP advertisements.
Rx:	Configuration status of the interface to receive LLDP advertisements.
Tx state:	Status of the LLDP transmit process on the interface.
Rx state:	Status of the LLDP receive process on the interface.

show lldp neighbors

Use the **show lldp neighbors** command to display the basic details of the neighbor devices.

show lldp neighbors

Syntax Description	This command has no arguments or keywords.	
Command Default	Basic device information for LLDP neighbors is displayed.	
Command Modes	EXEC mode	
Command History	Release	Modification
	Release 6.5.33	This command was introduced.
Task ID	Task ID	Operation
	ethernet-services	read

Example

The following example shows sample output for the **show lldp neighbors** command:

```
RP/0/RP0:ios#show lldp neighbors
Capability codes:
  (R) Router, (B) Bridge, (T) Telephone, (C) DOCSIS Cable Device
  (W) WLAN Access Point, (P) Repeater, (S) Station, (O) Other

Device ID          Local Intf          Hold-time    Capability    Port ID
R1                 TenGigECtrlr0/5/0/4/1  150         R             TenGigECtrlr0/5/0/4/1
Total entries displayed: 1
```

Table 2: show lldp neighbor Field Descriptions

Field	Description
Device ID	Name of the neighbor device.
Local Interface	Displays the interface on which the LLDP packet is received.
Hold Time	Time (in seconds) that the local device will hold the LLDP advertisement from a sending device before discarding it.
Capability	Name of the system capability advertised by the neighbor. Capabilities are represented in a bitmap that defines the system's primary functions.

Field	Description
Port ID	Displays the Port identifier that identifies the port component of the endpoint identifier associated with the transmitting LLDP agent.

show lldp neighbors detail

Use the **show lldp neighbors detail** command to display the neighbor devices details such as system description, name, and capabilities.

show lldp neighbors detail

Syntax Description	This command has no arguments or keywords.				
Command Default	Detailed device information for LLDP neighbors is displayed.				
Command Modes	EXEC mode				
Command History	<table><tr><th>Release</th><th>Modification</th></tr><tr><td>Release 6.5.33</td><td>This command was introduced.</td></tr></table>	Release	Modification	Release 6.5.33	This command was introduced.
Release	Modification				
Release 6.5.33	This command was introduced.				
Task ID	<table><tr><th>Task ID</th><th>Operation</th></tr><tr><td>ethernet-services</td><td>read</td></tr></table>	Task ID	Operation	ethernet-services	read
Task ID	Operation				
ethernet-services	read				

Example

The following example shows sample output for the **show lldp neighbors detail** command:

```
RP/0/RP0:ios#show lldp neighbors detail
Capability codes:
  (R) Router, (B) Bridge, (T) Telephone, (C) DOCSIS Cable Device
  (W) WLAN Access Point, (P) Repeater, (S) Station, (O) Other
-----
Local Interface: TenGigECtrlr0/5/0/4/1
Chassis id: 22 33
Port id:
Port Description - not advertised
System Name - not advertised
System Description - not advertised
Time remaining: 16 seconds
Hold Time: 17 seconds
System Capabilities: N/A
Enabled Capabilities: N/A
Management Addresses - not advertised
Peer MAC Address: 10:02:03:04:05:06
Total entries displayed: 1
```

Table 3: show lldp neighbor details Field Descriptions

Field	Description
Local Interface	Displays the interface on which the LLDP packet is received.

show lldp neighbors detail

Field	Description
Chassis id	Displays the chassis component of the endpoint identifier associated with the transmitting LLDP agent.
Port id	Displays the port ID that identifies the port component of the endpoint identifier associated with the transmitting LLDP agent.
Port Description	Displays the description of the port associated with the interface on which the LLDP agent is transmitting.
System Name	Displays the system's administratively assigned name.
System Description	Displays the description of the network entity.
Time remaining	Displays the remaining time.
Hold Time	Displays the time or duration in seconds that an LLDP device maintains the neighbor information before discarding.
System Capabilities	Displays a bit-map of the capabilities that define the primary functions of the system. A system may advertise more than one capability.
Enabled Capabilities	Indicates whether the corresponding system capability is enabled on the neighbor.
Management Addresses	Displays a network address of the remote device.
Peer MAC Address	Displays the source MAC address in the received LLDP packet.