Link Layer Discovery Protocol (LLDP) Command Reference

This chapter describes the commands to configure LLDP.

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

tlv-name	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

type	Specify the interface type.
interface-path-id	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

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 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.

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.