# Configuring LLDP

This chapter contains the following sections:


- Configuring LLDP, on page 1
- Configuring Interface LLDP, on page 2


# Configuring LLDP

### Before you begin

Ensure that the Link Layer Discovery Protocol (LLDP) feature is enabled on the switch.

### Procedure

| | Command or Action | Purpose |
|---|---|---|
| **Step 1** | switch# **configure terminal** | Enters global configuration mode. |
| **Step 2** | switch(config)# **lldp** {**holdtime** *seconds* \| **reinit** *seconds* \| **timer** *seconds* \| **tlv-select** {**dcbxp** \| **management-address** \| **port-description** \| **port-vlan** \| **system-capabilities** \| **system-description** \| **system-name**}} | Configures LLDP options.<br>Use the **holdtime** option to set the length of time (10 to 255 seconds) that a device should save LLDP information received before discarding it. The default value is 120 seconds.<br>Use the **reinit** option to set the length of time (1 to 10 seconds) to wait before performing LLDP initialization on any interface. The default value is 2 seconds.<br>Use the **timer** option to set the rate (5 to 254 seconds) at which LLDP packets are sent. The default value is 30 seconds.<br>Use the **tlv-select** option to specify the type length value (TLV). The default is enabled to send and receive all TLVs. |

| | Command or Action | Purpose |
|---|---|---|
| | | Use the **dcbxp** option to specify the Data Center Ethernet Parameter Exchange (DCBXP) TLV messages.<br>Use the **management-address** option to specify the management address TLV messages.<br>Use the **port-description** option to specify the port description TLV messages.<br>Use the **port-vlan** option to specify the port VLAN ID TLV messages.<br>Use the **system-capabilities** option to specify the system capabilities TLV messages.<br>Use the **system-description** option to specify the system description TLV messages.<br>Use the **system-name** option to specify the system name TLV messages. |
| **Step 3** | switch(config)# **no lldp** {**holdtime** \| **reinit** \| **timer**} | Resets the LLDP values to their defaults. |
| **Step 4** | (Optional)switch# **show lldp** | Displays LLDP configurations. |

### Example

This example shows how to configure the global LLDP hold time to 200 seconds:

```
switch# configure terminal
switch(config)# lldp holdtime 200
switch(config)#
```

This example shows how to enable LLDP to send or receive the management address TLVs:

```
switch# configure terminal
switch(config)# lldp tlv-select management-address
switch(config)#
```

# Configuring Interface LLDP

### Procedure

| | Command or Action | Purpose |
|---|---|---|
| **Step 1** | switch# **configure terminal** | Enters global configuration mode. |
| **Step 2** | switch(config)# **interface** *type slot*/*port* | Selects the interface to change. |

| | Command or Action | Purpose |
|---|---|---|
| | | **Note** If this is a QSFP+ GEM or a breakout port, the *port* syntax is *QSFP-module*/*port*. |
| **Step 3** | switch(config-if)# [**no**] **lldp** {**receive** \| **transmit**} | Sets the selected interface to either receive or transmit.<br>The **no** form of the command disables the LLDP transmit or receive. |
| **Step 4** | (Optional) switch# **show lldp** {**interface** \| **neighbors** [**detail** \| **interface** \| **system-detail**] \| **timers** \| **traffic**} | Displays LLDP configurations. |

### Example

This example shows how to set an interface to transmit LLDP packets:

```
switch# configure terminal
switch(config)# interface ethernet 1/2
switch(config-if)# lldp transmit
```

This example shows how to configure an interface to disable LLDP:

```
switch# configure terminal
switch(config)# interface ethernet 1/2
switch(config-if)# no lldp transmit
switch(config-if)# no lldp receive
```

This example shows how to display LLDP interface information:

```
switch# show lldp interface ethernet 1/2
tx_enabled: TRUE
rx_enabled: TRUE
dcbx_enabled: TRUE
Port MAC address:    00:0d:ec:a3:5f:48
Remote Peers Information
No remote peers exist
```

This example shows how to display LLDP neighbor information:

```
switch# show lldp neighbors
LLDP Neighbors
Remote Peers Information on interface Eth1/40
Remote peer's MSAP: length 12 Bytes:
00    c0    dd    0e    5f    3a    00    c0    dd    0e    5f    3a
LLDP TLV's
LLDP TLV type:Chassis ID  LLDP TLV Length: 7
LLDP TLV type:Port ID  LLDP TLV Length: 7
```

```
LLDP TLV type:Time to Live  LLDP TLV Length: 2
LLDP TLV type:LLDP Organizationally Specific  LLDP TLV Length: 55
LLDP TLV type:LLDP Organizationally Specific  LLDP TLV Length: 5
LLDP TLV type:END of LLDPDU  LLDP TLV Length: 0
Remote Peers Information on interface Eth1/34
Remote peer's MSAP: length 12 Bytes:
00    0d    ec    a3    27    40    00    0d    ec    a3    27    69
LLDP TLV's
LLDP TLV type:Chassis ID  LLDP TLV Length: 7
LLDP TLV type:Port ID  LLDP TLV Length: 7
LLDP TLV type:Time to Live  LLDP TLV Length: 2
LLDP TLV type:LLDP Organizationally Specific  LLDP TLV Length: 55
LLDP TLV type:LLDP Organizationally Specific  LLDP TLV Length: 5
LLDP TLV type:END of LLDPDU  LLDP TLV Length: 0
Remote Peers Information on interface Eth1/33
Remote peer's MSAP: length 12 Bytes:
00    0d    ec    a3    27    40    00    0d    ec    a3    27    68
LLDP TLV's
LLDP TLV type:Chassis ID  LLDP TLV Length: 7
LLDP TLV type:Port ID  LLDP TLV Length: 7
LLDP TLV type:Time to Live  LLDP TLV Length: 2
LLDP TLV type:LLDP Organizationally Specific  LLDP TLV Length: 55
LLDP TLV type:LLDP Organizationally Specific  LLDP TLV Length: 5
LLDP TLV type:END of LLDPDU  LLDP TLV Length: 0
```

This example shows how to display the system details about LLDP neighbors:

```
switch# sh lldp neighbors system-detail
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 Chassis ID PortID Hold-time Capability

switch-2  Eth1/7  0005.73b7.37ce Eth1/7  120 B
switch-3  Eth/9   0005.73b7.37d0 Eth1/9  120 B
switch-4  Eth1/10 0005.73b7.37d1 Eth1/10 120 B
Total entries displayed: 3
```

This example shows how to display LLDP timer information:

```
switch# show lldp timers

LLDP Timers

holdtime 120 seconds

reinit 2 seconds

msg_tx_interval 30 seconds
```

This example shows how to display information about LLDP counters:

```
switch# show lldp traffic

LLDP traffic statistics:


    Total frames out: 8464

    Total Entries aged: 6

    Total frames in: 6342

    Total frames received in error: 2

    Total frames discarded: 2

    Total TLVs unrecognized: 0
```