



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. 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. 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. Use the timer option to set the rate (5 to 254 seconds) at which LLDP packets are sent. The default value is 30 seconds. 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. Use the management-address option to specify the management address TLV messages. Use the port-description option to specify the port description TLV messages. Use the port-vlan option to specify the port VLAN ID TLV messages. Use the system-capabilities option to specify the system capabilities TLV messages. Use the system-description option to specify the system description TLV messages. 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 <i>port</i> syntax is <i>QSFP-module/port</i> .
Step 3	switch(config-if)# [no] lldp {receive transmit}	Sets the selected interface to either receive or transmit. 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

```


