



Configuring LLDP

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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}} | <p>Configures LLDP options.</p> <p>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.</p> <p>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.</p> <p>Use the timer option to set the rate (5 to 254 seconds) at which LLDP packets are sent. The default value is 30 seconds.</p> <p>Use the tlv-select option to specify the type length value (TLV). The default is enabled to send and receive all TLVs.</p> <p>Use the dcbxp option to specify the Data Center Ethernet Parameter Exchange (DCBXP) TLV messages.</p> <p>Use the management-address option to specify the management address TLV messages.</p> |

| | Command or Action | Purpose |
|---------------|---|--|
| | | <p>Use the port-description option to specify the port description TLV messages.</p> <p>Use the port-vlan option to specify the port VLAN ID TLV messages.</p> <p>Use the system-capabilities option to specify the system capabilities TLV messages.</p> <p>Use the system-description option to specify the system description TLV messages.</p> <p>Use the system-name option to specify the system name TLV messages.</p> |
| 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. |

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 <i>type slot/port</i> | <p>Selects the interface to change.</p> <p>Note If this is a QSFP+ GEM, the <i>slot/port</i> syntax is <i>slot/QSFP-module/port</i>.</p> |
| Step 3 | switch(config-if)# [no] lldp {receive transmit} | <p>Sets the selected interface to either receive or transmit.</p> <p>The no form of the command disables the LLDP transmit or receive.</p> |

| | Command or Action | Purpose |
|---------------|--|---|
| Step 4 | switch# show lldp {interface neighbors [detail interface system-detail] timers traffic} | (Optional) Displays LLDP configurations. |

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
```