



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.

SUMMARY STEPS

1. switch# **configure terminal**
2. switch# **feature lldp**
3. switch(config)# **lldp** {**holdtime** *seconds* | **reinit** *seconds* | **timer** *seconds* | **tlv-select** {**dcbxp** | **management-address** | **power management** | **port-description** | **port-vlan** | **system-capabilities** | **system-description** | **system-name**}}
4. switch(config)# **no lldp** {**holdtime** | **reinit** | **timer**}
5. (Optional)switch# **show lldp**

DETAILED STEPS

	Command or Action	Purpose
Step 1	switch# configure terminal	Enters global configuration mode.
Step 2	switch# feature lldp	Enable LLDP.
Step 3	switch(config)# lldp { holdtime <i>seconds</i> reinit <i>seconds</i> timer <i>seconds</i> tlv-select { dcbxp management-address power management 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.

	Command or Action	Purpose
		<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> <p>Use the power management option to specify the power management TLV for LLDP.</p> <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 4	switch(config)# no lldp {holdtime reinit timer}	Resets the LLDP values to their defaults.
Step 5	(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

SUMMARY STEPS

1. switch# **configure terminal**
2. switch(config)# **interface** *type slot/port*
3. switch(config-if)# **[no] lldp {receive | transmit}**
4. (Optional) switch# **show lldp {interface | neighbors [detail | interface | system-detail] | timers | traffic}**

DETAILED STEPS

	Command or Action	Purpose
Step 1	switch# configure terminal	Enters global configuration mode.
Step 2	switch(config)# interface <i>type slot/port</i>	Selects the interface to change.
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
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
SW-INSBU-JWALA-PP52.cisco.com
  mgmt0             Eth1/41        120        B           Gi1/0/37
MTC-2               Eth1/41        120        BR          Ethernet1/43
MTC-CR2             Eth1/42        120        BR          Ethernet1/43
MTC-CR2             Eth1/43        120        BR          Ethernet1/42
MTC-2               Eth1/44        120        BR          Ethernet1/41
MTC-CR2             Eth1/45        120        BR          Ethernet1/41
MTC-2               Eth1/46        120        BR          Ethernet1/44
MTC-2               Eth1/47        120        BR          Ethernet1/42
MTC-CR2             Eth1/48        120        BR          Ethernet1/44
Total entries displayed: 9
```

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
```

MIBs for LLDP

MIB	Link
LLDP-MIB	ftp://ftp.cisco.com/pub/mibs/supportlists/nexus3000/Nexus3000MIBSupportList.html

