

## **Configuring LLDP**

This chapter describes how to configure the Link Layer Discovery Protocol (LLDP) in order to discover other devices on the local network.

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### **About LLDP**

The Cisco Discovery Protocol (CDP) is a device discovery protocol that allows network management applications to automatically discover and learn about other Cisco devices that are connected to the network.

To permit the discovery of non-Cisco devices, the switch also supports the Link Layer Discovery Protocol (LLDP), a vendor-neutral device discovery protocol that is defined in the IEEE 802.1ab standard. LLDP allows network devices to advertise information about themselves to other devices on the network. This protocol runs over the data-link layer, which allows two systems running different network layer protocols to learn about each other.

LLDP is a one-way protocol that transmits information about the capabilities and current status of a device and its interfaces. LLDP devices use the protocol to solicit information only from other LLDP devices.

LLDP supports a set of attributes that it uses to discover other devices. These attributes contain type, length, and value (TLV) descriptions. LLDP devices can use TLVs to send and receive information to other devices on the network. Details such as configuration information, device capabilities, and device identity can be advertised using this protocol.

LLDP advertises the following TLVs by default:

- DCBXP
- · Management address
- Port description
- Port VLAN

- · System capabilities
- System description
- System name

#### **About DCBXP**

The Data Center Bridging Exchange Protocol (DCBXP) is an extension of LLDP. It is used to announce, exchange, and negotiate node parameters between peers. DCBXP parameters are packaged as DCBXP TLVs in the LLDP packet. If CEE is used, DCBXP will use an acknowledgment mechanism over LLDP. When the port comes up, DCBX TLVs are sent and any DCBX TLVs received are processed. By default, the DCBX protocol is set to auto-detect, and the latest protocol version supported by both the peers is used.

Features that need to exchange and negotiate parameters with peer nodes using DCBXP are as follows:

- Priority-based Flow Control (PFC)—PFC is an enhancement to the existing Pause mechanism in Ethernet.
   It enables Pause based on user priorities or classes of service. A physical link that is divided into eight virtual links with PFC provides the capability to use Pause on a single virtual link without affecting traffic on the other virtual links. Enabling Pause on a per-user-priority basis allows administrators to create lossless links for traffic requiring no-drop service while retaining packet-drop congestion management for IP traffic.
- Enhanced Transmission Selection (ETS)—ETS enables optimal bandwidth management of virtual links. ETS is also called priority grouping. It enables differentiated treatments within the same priority classes of PFC. ETS provides prioritized processing based on bandwidth allocation, low latency, or best effort, resulting in per-group traffic class allocation. For example, an Ethernet class of traffic may have a high-priority designation and a best effort within that same class. ETS allows differentiation between traffic of the same priority class, thus creating priority groups.
- Application Priority Configuration—Carries information about the priorities that are assigned to specific protocols.
- Priority to DSCP Mapping—The mapping of the DSCP and COS values configured in the QoS policy are sent in the Application Priority TLV.



Note

For information on the quality of service (QoS) features, see the *Cisco Nexus 9000 Series NX-OS Quality of Service Configuration Guide*.

DCBXP is enabled by default, provided LLDP is enabled. When LLDP is enabled, DCBXP can be enabled or disabled using the [no] lldp tlv-select dcbxp command. DCBXP is disabled on ports where LLDP transmit or receive is disabled.

Beginning with Cisco NX-OS Release 10.2(3)F, an additional command is introduced: [no] **lldp tlv-select dcbxp egress-queuing**. While the [no] **lldp tlv-select dcbxp** command sends input queuing parameters in the ETS information that is exchanged with the peer, the [no] **lldp tlv-select dcbxp egress-queuing** command sends output queuing parameters in the ETS information. Hence, the bandwidths and priority information are extracted from the output queuing policy and exchanged with the peer.

At a time, you can configure either egress queuing or ingress queuing by running either **lldp tlv-select dcbxp egress-queuing** or **lldp tlv-select dcbxp** command as they overwrite each other.

The no forms of both the commands stop the DCBXP exchange on all interfaces.

To view which of the above two commands is enabled, run the **show lldp tlv-select** command.

When the default input queuing policy at system level is detached, the DCBXP exchange on all interfaces will stop sending ETS configuration and recommendation TLVs. However, the default output queuing policy at the system level cannot be detached.

### **High Availability**

The LLDP feature supports stateless and stateful restarts. After a reboot or supervisor switchover, the running configuration is applied.

For more information on high availability, see the Cisco Nexus 9000 Series NX-OS High Availability and Redundancy Guide.

### **Virtualization Support**

One instance of LLDP is supported.

### **Guidelines and Limitations for LLDP**

LLDP has the following configuration guidelines and limitations:

- LLDP must be enabled on the device before you can enable or disable it on any interfaces.
- LLDP is supported only on physical interfaces.

Beginning with Release 10.1(1), multiple LLDP neighbors per physical interface are supported on the following platforms:

- N9K-C93180YC-FX3S
- N9K-C93108TC-FX3P
- N9K-C93180YC-FX3
- LLDP can discover up to one device per port.
- DCBXP is supported on the following platforms:
  - Cisco Nexus 9200, 9300-EX, 9300-FX, and 9300-FX2 Series switches
  - Cisco Nexus 9332C, 9332PQ, 9364C, 9372PX, 9372PX-E, and 9396PX switches
  - Cisco Nexus 9504 and 9508 switches with X9432PQ, X9464PX, X9536PQ, X9564PX, X9636PQ, X9732C-EX, and X9736C-FX, line cards
- The Cisco Nexus 3232C and 3264Q switches do not support DCBXP.
- DCBXP incompatibility messages might appear when you change the network QoS policy if a physical loopback connection is in the device. The incompatibility exists for only a short time and then clears.
- PFC TLV are sent when pause is enabled for at-least one COS value in network-qos policy and priority-flow-control mode should be auto in the Interface level.

- Beginning with Cisco NX-OS Release 10.2(3)F, the [no] lldp tlv-select dcbxp egress-queuing command is introduced to provide you the option to advertise egress queuing configuration in the switch. This feature is supported on Cisco Nexus 9200, 9300-EX, and 9300-FX platform switches.
- DCBX TLVs are sent when ingress queuing is applied if **lldp tlv-select dcbxp** command is used and when output queuing is applied if **lldp tlv-select dcbxp egress-queuing** is used.
- Beginning with Cisco NX-OS Release 10.2(3)F, the Correctly Advertise LLDP Chassis-ID feature introduces a new global configuration command—**Ildp chassis-id switch**—to advertise the switch chassis MAC address instead of the port MAC address, that is, all the ports will publish only the MAC address of the switch chassis. This feature is supported on all Cisco Nexus 9000 series platform switches.
- Beginning with Cisco NX-OS Release 10.3(1)F, LLDP (Multi Neighbor and Port- channel) is supported on the Cisco Nexus 9808 platform switches.
- Beginning with Cisco NX-OS Release 10.3(1)F, PFC, ECN, and DCBX are supported on Cisco Nexus 9300-FX3 platform switches. On 9300-FX3, DCBX as FEX is supported with ingress queuing.
- Beginning with Cisco NX-OS Release 10.3(2)F, new optional parameters such as 802.1 link aggregation, 802.1 vlan name, and 802.3 max frame size are enabled by default for the **lldp tlv-select** command.
  - The TLV name will only have the first 32 characters as specified by standards, even if the user configures more than 32 characters when creating vlans. Only the names of 25 active vlans are displayed.
- Beginning with Cisco NX-OS Release 10.4(1)F, LLDP is supported on the following switches and line cards:
  - Cisco Nexus 9804 platform switch
  - Cisco Nexus X98900CD-A line card
  - Cisco Nexus X98900CD-A line card with Cisco Nexus 9808 and 9804 switches

## **Default Settings for LLDP**

This table lists the LLDP default settings.

Parameters	Default
Global LLDP	Disabled
LLDP on interfaces	Enabled, after LLDP is enabled globally
LLDP hold time (before discarding)	120 seconds
LLDP reinitialization delay	2 seconds
LLDP timer (packet update frequency)	30 seconds
LLDP TLVs	Enabled
LLDP receive	Enabled, after LLDP is enabled globally
LLDP transmit	Enabled, after LLDP is enabled globally
DCBXP	Enabled, provided LLDP is enabled
DCBXP version	Auto-detect

# **Configuring LLDP**



Note

Cisco NX-OS commands for this feature may differ from Cisco IOS commands for a similar feature.

### **Enabling or Disabling LLDP Globally**

You can enable or disable LLDP globally on a device. You must enable LLDP globally to allow a device to send and receive LLDP packets.

#### **SUMMARY STEPS**

- 1. configure terminal
- 2. [no] feature lldp
- 3. (Optional) [no] lldp chassis-id switch
- 4. (Optional) show running-config lldp
- 5. (Optional) copy running-config startup-config

	Command or Action	Purpose
Step 1	configure terminal	Enters global configuration mode.
	<pre>Example: switch# configure terminal switch(config)#</pre>	
Step 2	<pre>[no] feature lldp  Example: switch(config) # feature lldp</pre>	Enables or disables LLDP on the device. LLDP is disabled by default.  Note When this command is enabled, by default, the switch advertises the port MAC address per port.
Step 3	(Optional) [no] lldp chassis-id switch  Example: switch(config) # lldp chassis-id switch	Enable this command to indicate that the switch chassis MAC address must be advertised for all the ports.  Use the no form of this command to revert to advertising the port MAC address per port.  Note Use the show vdc detail command to view the switch chassis MAC address.
Step 4	(Optional) show running-config lldp  Example: switch(config) # show running-config lldp	Displays the global LLDP configuration. If LLDP is enabled, it shows "feature lldp." If LLDP is disabled, it shows an "Invalid command" error.

	Command or Action	Purpose
Step 5	(Optional) copy running-config startup-config	Copies the running configuration to the startup
	Example:	configuration.
	switch(config)# copy running-config startup-config	

## **Enabling or Disabling LLDP on an Interface**

After you globally enable LLDP, it is enabled on all supported interfaces by default. However, you can enable or disable LLDP on individual interfaces or selectively configure an interface to only send or only receive LLDP packets.

#### Before you begin

Make sure that you have globally enabled LLDP on the device.

#### **SUMMARY STEPS**

- 1. configure terminal
- 2. interface interface slot/port
- 3. [no] lldp transmit
- 4. [no] lldp receive
- **5.** (Optional) **show lldp interface** interface slot/port
- 6. (Optional) copy running-config startup-config

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	Command or Action	Purpose
Step 5	(Optional) show lldp interface interface slot/port	Displays the LLDP configuration on the interface.
	Example:	
	<pre>switch(config-if)# show lldp interface ethernet 7/1</pre>	
Step 6	(Optional) copy running-config startup-config	Copies the running configuration to the startup
	Example:	configuration.
	switch(config)# copy running-config startup-config	

## **Configuring DCBXP Egress Queuing**

Use the following procedure to configure DCBXP egress queuing.

#### Before you begin

• Make sure that you have globally enabled LLDP on the device (global configuration command **feature lldp**).



Note

After you globally enable LLDP, it is enabled on all supported interfaces by default.

#### **SUMMARY STEPS**

- 1. configure terminal
- 2. lldp tlv-select dcbxp
- 3. (Optional) lldp tlv-select dcbxp egress-queuing

	Command or Action	Purpose
Step 1	configure terminal	Enters global configuration mode.
	Example:	
	<pre>switch# configure terminal switch(config)#</pre>	
Step 2	Required: lldp tlv-select dcbxp	Enables DCBXP TLVs globally and starts sending input
	Example:	queuing parameters in the ETS information exchanged with the peer.
	<pre>switch(config)# lldp tlv-select dcbxp switch(config)#</pre>	the peet.
Step 3	(Optional) lldp tlv-select dcbxp egress-queuing	Enables DCBXP TLVs globally and starts sending output
	Example:	queuing parameters in the ETS information.

Command or Action	Purpose
<pre>switch(config)# lldp tlv-select dcbxp egress-queuing switch(config)#</pre>	

## **Configuring the DCBXP Protocol Version**

You can specify the protocol version in which the DCBX TLVs are sent.



Note

If the peers are not running the same version, DCBX parameters may not converge for the link. You may need to reset the link for the new protocol version to take effect.

#### Before you begin

Make sure that you have globally enabled LLDP on the device.

#### **SUMMARY STEPS**

- 1. configure terminal
- **2.** interface interface slot/port
- 3. lldp dcbx version cee/ieee/auto

	Command or Action	Purpose
Step 1	configure terminal	Enters global configuration mode.
	Example:	
	<pre>switch# configure terminal switch(config)#</pre>	
Step 2	interface interface slot/port	Enters interface configuration mode.
	<pre>Example: switch(config) # interface ethernet 1/25 switch(config-if) #</pre>	
Step 3	lldp dcbx version cee/ieee/auto	Specifies the protocol version mode sent.
	<pre>Example: switch(config-if)#lldp dcbx version cee</pre>	• The <i>cee</i> variable sets the port to only send TLVs in Converged Enhanced Ethernet (CEE) protocol version.
		• The <i>ieee</i> variable sets the port to only sent TLVs in IEEE 802.1Qaz protocol version.
		• The <i>auto</i> variable sets the port to send TLVs in the latest protocol version supported by both the peers.
		The default is set to <i>auto</i> .

Command or Action	Purpo	se
	Note	Devices that do not support IEEE 802.1Qaz may not properly respond to auto-negotiation attempts and may require the interface to be manually configured for lldp dcbx version cee.

### **Multiple LLDP Neighbors Per Physical Interface**

Often times a network device sends multiple LLDP packets, out of which one is from the actual host. If a Cisco Nexus switch is communicating with the device but can only manage a single LLDP neighbor per interface, there is a good chance that becoming a neighbor with the actual required host will fail. To minimize this, Cisco Nexus switch interfaces can support multiple LLDP neighbors creating a better opportunity of becoming an LLDP neighbor with the correct device.

Support for multiple LLDP neighbors over the same interface requires LLDP multi-neighbor support to be configured globally.



Note

You must disable DCBX globally before configuring LLDP multi-neighbor support. Failure to do so invokes an error message.

#### **Enabling or Disabling LLDP Multi-Neighbor Support**

#### Before you begin

Consider the following before enabling LLDP multi-neighbor support on the interfaces:

• Make sure that you have globally enabled LLDP on the device (global configuration command **feature lldp**).



Note

After you globally enable LLDP, it is enabled on all supported interfaces by default.

- A maximum of three (3) neighbors are supported on an interface.
- LLDP multi-neighbor is not supported on FEX interfaces.

#### **SUMMARY STEPS**

- 1. configure terminal
- 2. no lldp tlv-select dcbxp
- 3. no lldp tlv-select dcbxp egress-queuing
- 4. [no] lldp multi-neighbor
- 5. interface port / slot
- 6. (Optional) [no] lldp transmit
- 7. (Optional) [no] lldp receive

- **8.** (Optional) **show lldp interface** *port I slot*
- 9. (Optional) copy running-config startup-config

	Command or Action	Purpose	
Step 1	configure terminal	Enters global configuration mode.	
	<pre>Example: switch# configure terminal switch(config)#</pre>	Note If the output of the show lldp tlv-select command shows dcbxp, then perform step 2 and skip step 3. If the output shows dcbxp egress-queuing then skip step 2 and perform step 3.	
		This is required to avoid invoking an error message when you configure LLDP multi-neighbor support.	
Step 2	Required: no lldp tlv-select dcbxp	Disables DCBXP TLVs globally.	
	Example:		
	<pre>switch(config)# no lldp tlv-select dcbxp switch(config)#</pre>		
Step 3	Required: no lldp tlv-select dcbxp egress-queuing	Disables DCBXP TLVs globally.	
	<pre>Example: switch(config) # no lldp tlv-select dcbxp egress-queuing switch(config) #</pre>		
Step 4	Required: [no] lldp multi-neighbor  Example:  switch(config) # lldp multi-neighbor	Enables or disables LLDP multi-neighbor support for all interfaces globally.	
	switch(config)#		
Step 5	interface port / slot	Specifies the interface on which you are enabling LLI	
	<pre>Example: switch(config) # interface 1/1 switch(config-if) #</pre>	and enters the interface configuration mode.	
Step 6	(Optional) [no] lldp transmit	Disables (or enables) the transmission of LLDP packets on	
	Example:	the interface.	
	switch(config-if)# lldp transmit	Note The transmission of LLDP packets on this interface was enabled using the global <b>feature lldp</b> command. This option is to disable the feature for this specific interface.	
Step 7	(Optional) [no] lldp receive	Disables (or enables) the reception of LLDP packets on the	
	Example:	interface.	

	Command or Action	Purpose
	switch(config-if)# lldp receive	Note The reception of LLDP packets on this interface was enabled using the global <b>feature lldp</b> command. This option is to disable the feature for this specific interface.
Step 8	(Optional) show lldp interface port / slot  Example: switch(config-if) # show lldp interface 1/1	Displays the LLDP configuration on the interface.
Step 9	(Optional) copy running-config startup-config  Example: switch(config) # copy running-config startup-config	Copies the running configuration to the startup configuration.

### **Enabling or Disabling LLDP Support on Port-Channel Interfaces**

#### Before you begin

Consider the following before enabling LLDP support on port-channels:

• Make sure that you have globally enabled LLDP on the device (global configuration command **feature lldp**).



Note

After you globally enable LLDP, it is enabled on all supported interfaces by default.

- Applying the **lldp transmit** and **lldp receive** configuration commands to a port-channel does not affect the configuration for the members of the port-channel.
- LLDP neighbors form between the port-channels only when LLDP transmit and receive is configured on both sides of the port-channel.
- The LLDP transmit and receive commands do not work on MCT, VPC, fex-fabric, FEX port-channels, and port-channel sub-interfaces.



Note

If you enable the LLDP port-channel feature globally, the LLDP configuration is not applied to any of these port types. If the configuration is removed from the port-channels or the port type feature is disabled globally, you cannot use the **Ildp port-channel** command to enable it on the newly supported port-channels. The command was already issued. To enable LLDP port-channel on the port-channels in question, configure **Ildp transmit** and **Ildp receive** for each port-channel (see steps 4, 5, and 6 in the following procedure).

#### **SUMMARY STEPS**

- 1. configure terminal
- 2. no lldp tlv-select dcbxp
- 3. no lldp tlv-select dcbxp egress-queuing
- 4. [no] lldp port-channel
- $\textbf{5.} \quad \textbf{interface port-channel} \ [\textit{port-channel-number} \ | \ \textit{port-channel-range}]$
- 6. (Optional) [no] lldp transmit
- 7. (Optional) [no] lldp receive
- **8.** (Optional) **show lldp interface port-channel** *port-channel-number*
- 9. (Optional) copy running-config startup-config

	Command or Action	Purpose	
Step 1	configure terminal	Enters global configuration mode.	
	<pre>Example: switch# configure terminal switch(config)#</pre>	Note If the output of the show lldp tlv-select command shows dcbxp, then perform step 2 and skip step 3. If the output shows dcbxp egress-queuing then skip step 2 and perform step 3.	
		This is required before configuring LLDP on port-channels.	
Step 2	Required: no lldp tlv-select dcbxp	Disables DCBXP TLVs globally.	
	Example:		
	<pre>switch(config)# no lldp tlv-select dcbxp switch(config)#</pre>		
Step 3	Required: no lldp tlv-select dcbxp egress-queuing	Disables DCBXP TLVs globally.	
	Example:		
	<pre>switch(config)# no lldp tlv-select dcbxp egress-queuing switch(config)#</pre>		
Step 4	Required: [no] lldp port-channel	Enables or disables LLDP transmit and receive for all port	
	Example:	channels globally.	
	<pre>switch(config)# lldp port-channel switch(config)#</pre>		
Step 5	interface port-channel [port-channel-number   port-channel-range]	Specifies the interface port-channel on which you are enabling LLDP and enters the interface configuration mode.	
	Example:	Specifies the interface port-channel range on which you are	
	<pre>switch(config)# interface port-channel 3 switch(config-if)#</pre>	enabling LLDP and enters the interface range configuration mode.	
	Example:		
	Enter a range of port-channel numbers if you are configuring LLDP over more than one port-channel:		

	Command or Action	Purpose
	<pre>switch(config)# interface port-channel 1-3 switch(config-if-range)#</pre>	
Step 6	(Optional) [no] lldp transmit  Example: switch(config-if) # lldp transmit	Disables (or enables) the transmission of LLDP packets on the port-channel or range of port-channels.  Note The transmission of LLDP packets on this port-channel was enabled using the global lldp port-channel command in step 3. This option is to disable the feature for this specific port-channel.
Step 7	(Optional) [no] lldp receive  Example: switch(config-if) # lldp receive	Disables (or enables) the reception of LLDP packets on the port-channel or range of port-channels.  Note The reception of LLDP packets on this port-channel was enabled using the global lldp port-channel command in step 3. This option is to disable the feature for this specific port-channel.
Step 8	(Optional) show lldp interface port-channell port-channel-number  Example:  switch(config-if) # show lldp interface port-channel 3	Displays the LLDP configuration on the port-channel.
Step 9	(Optional) copy running-config startup-config  Example: switch(config) # copy running-config startup-config	Copies the running configuration to the startup configuration.

## **Configuring Optional LLDP Parameters**

You can configure the frequency of LLDP updates, the amount of time for a receiving device to hold the information before discarding it, and the initialization delay time. You can also select the TLVs to include in LLDP packets.

#### **SUMMARY STEPS**

- 1. configure terminal
- 2. (Optional) [no] lldp holdtime seconds
- 3. (Optional) [no] lldp reinit seconds
- 4. (Optional) [no] lldp timer seconds
- 5. (Optional) show lldp timers
- **6.** (Optional) [no] lldp tlv-select tlv
- 7. (Optional) show lldp tlv-select
- 8. (Optional) copy running-config startup-config

#### **DETAILED STEPS**

	Command or Action	Purpose
Step 1	configure terminal	Enters global configuration mode.
	Example:	
	<pre>switch# configure terminal switch(config)#</pre>	
Step 2	(Optional) [no] lldp holdtime seconds	Specifies the amount of time in seconds that a receiving
	Example:	device should hold the information that is sent by your device before discarding it.
	switch(config)# lldp holdtime 200	The range is 10 to 255 seconds; the default is 120 seconds.
Step 3	(Optional) [no] lldp reinit seconds	Specifies the delay time in seconds for LLDP to initialize
	Example:	on any interface.
	switch(config)# lldp reinit 5	The range is 1 to 10 seconds; the default is 2 seconds.
Step 4	(Optional) [no] lldp timer seconds	Specifies the transmission frequency of LLDP updates in
	Example:	seconds.
	switch(config)# lldp timer 50	The range is 5 to 254 seconds; the default is 30 seconds.
Step 5	(Optional) show lldp timers	Displays the LLDP hold time, delay time, and update
	Example:	frequency configuration.
	switch(config) # show lldp timers	
Step 6	(Optional) [no] lldp tlv-select tlv	Specifies the TLVs to send and receive in LLDP packets.
	Example:	The available TLVs are management-address, port-description, port-vlan, system-capabilities,
	switch(config)# lldp tlv-select system-name	system-description, port vlan-name, port link-aggregation,
	<pre>switch(config)# lldp tlv-select port link-aggregation</pre>	port max-framesize, and system-name. All available TLVs are enabled by default.
		Use the no form of the command to disable the TLV.
Step 7	(Optional) show lldp tlv-select	Displays the LLDP TLV configuration.
	Example:	
	switch(config)# show lldp tlv-select	
Step 8	(Optional) copy running-config startup-config	Copies the running configuration to the startup
	Example:	configuration.
	switch(config)# copy running-config startup-config	J. Company of the com

# **Verifying the LLDP Configuration**

To display the LLDP configuration, perform one of the following tasks:

Command	Purpose
show running-config lldp	Displays the global LLDP configuration.
show lldp interface interface slot/port	Displays the LLDP interface configuration.
show lldp timers	Displays the LLDP hold time, delay time, and update frequency configuration.
show lldp tlv-select	Displays the LLDP TLV configuration.
show lldp neighbors {detail   interface interface slot/port}	Displays the LLDP neighbor device status.  Note If the neighboring switch advertises switch MAC, then this show command displays the switch MAC and if it advertises the port MAC, the show command will display the port MAC.
show lldp traffic	Displays the LLDP counters, including the number of LLDP packets sent and received by the device, the number of discarded packets, and the number of unrecognized TLVs.
show lldp traffic interface interface slot/port	Displays the number of LLDP packets sent and received on the interface.
show qos dcbxp interface slot/port	Displays DCBXP information for a specific interface.

Use the **clear lldp counters** command to clear the LLDP statistics.

# **Configuration Example for LLDP**

This example shows how to enable LLDP on a device; disable LLDP on some interfaces; configure optional parameters such as hold time, delay time, and update frequency; and disable several LLDP TLVs:

```
switch# configure terminal
Enter configuration commands, one per line. End with \mathtt{CNTL}/\mathtt{Z}\text{.}
switch(config)# feature lldp
switch(config) # interface ethernet 7/9
switch(config-if) # no lldp transmit
switch(config-if)# no lldp receive
switch(config-if)# exit
switch(config)# interface ethernet 7/10
switch(config-if) # no lldp transmit
switch(config-if)# no lldp receive
switch(config-if)# exit
switch(config)# 11dp holdtime 200
switch(config)# 11dp reinit 5
switch(config)# 11dp timer 50
switch(config)# no lldp tlv-select port-vlan
switch(config) # no lldp tlv-select system-name
```

**Configuration Example for LLDP**