

ENCS 5400 Switch LLDP

This chapter describes how to configure the Link Layer Discovery Protocol (LLDP) on ENCS 5400.

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Link Layer Discovery Protocol (LLDP) Commands

Link Layer Discovery Protocol (LLDP), is a neighbor discovery protocol that is used for 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 unidirectional, operating only in an advertising mode. LLDP does not solicit information or monitor state changes between LLDP nodes. LLDP periodically sends advertisements to a constrained multicast address. Devices supporting LLDP can send information about themselves while they receive and record information about their neighbors. Additionally, devices can choose to turn off the send or receive functions independently. Advertisements are sent out and received on every active and enabled interface, allowing any device in a network to learn about all devices to which it is connected.

LLDP supports a set of attributes that it uses to discover neighbor devices. These attributes contain type, length, and value descriptions and are referred to as TLVs. LLDP supported devices can use TLVs to receive and send information to their neighbors. Details such as configuration information, device capabilities, and device identity can be advertised using this protocol.

Enabling and Disabling LLDP

To globally enable LLDP:

```
configure terminal
switch
    lldp run
    commit
```

To globally disable LLDP:

```
configure terminal
switch
```

```
    no lldp run
    commit
```

LLDP is enabled by default on all supported interfaces. You must enable LLDP globally to allow a device to send LLDP packets. However, no changes are required at the interface level.

You can configure the interface selectively not to send and receive LLDP packets with the **no lldp transmit** and **no lldp receive** commands.

To enable LLDP on an interface:

```
configure terminal
switch
    interface gigabitEthernet1/0
        lldp transmit
        lldp receive
        commit
```

Configuring LLDP Characteristics

To specify an interval at which LLDP packets are sent:

```
configure terminal
switch
    lldp timer 135
    commit
```

To display LLDP statistics:

```
nfvis# show switch lldp statistics
                                                                        RX
      TX             RX FRAMES          RX         TLVS           AGEOUTS
PORT  FRAMES  TOTAL  DISCARDED  ERRORS  DISCARDED  UNRECOGNIZED  TOTAL
-------------------------------------------------------------------------
1/0   0       0      0          0       0          0             0
1/1   0       0      0          0       0          0             0
1/2   792     756    0          0       0          0             0
1/3   791     756    0          0       0          0             0
1/4   0       0      0          0       0          0             0
1/5   0       0      0          0       0          0             0
1/6   792     756    0          0       0          0             0
1/7   791     756    0          0       0          0             0
```

To display information about LLDP neighbors:

```
nfvis# show switch lldp neighbors

SYSTEM
INDEX PORT DEVICE ID PORT ID NAME CAPABILITIES TTL
-----------------------------------------------------------------------
1 gi1/1 00:1a:6c:81:f0:80 Gi1/0/31 SW-026 Bridge 93
2 gi1/6 2c:0b:e9:3c:89:00 Gi1/0/5 Switch Bridge 119
```