



## L2CP Tunneling MEF

This chapter introduces you to L2 Control Protocols (L2CP) tunneling to help initiate control packets from a local customer-edge (CE) device to a remote CE device.

**Table 1: Feature History Table**

| Feature Name   | Release Information | Feature Description   |
|----------------|---------------------|---|
| L2CP Tunneling | Release 7.4.1       | <p>This feature is now supported on routers that have Cisco NC57 line cards installed and operates in native and compatibility modes.</p> <p>L2 Control Protocols (L2CP) tunneling helps initiate control packets from a local customer-edge (CE) device to a remote CE device.</p> |

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## L2CP Tunneling

The router supports the following tunnel protocols:

- Link Layer Discovery Protocol (LLDP)
- Link Aggregation Control Protocol (LACP)
- Operation, Administration, Management (OAM)
- Ethernet Local Management Interface (ELMI)
- Cisco Discovery Protocol (CDP)

Some of the L2 transport interfaces are:

- VPWS L2 transport main
- VPWS L2 subinterface
- L2 transport main bridge port
- L2 subinterface bridge port

- VPWS L2 bundle main port
- VPWS L2 bundle subinterface
- L2 bundle main bridge port

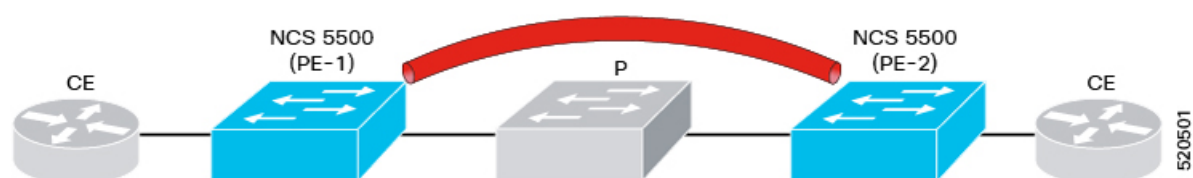
On a subinterface, when control packets such as LLDP and LACP are tunneled, the system tunnels the same control packets to the main interface.

The LACP packet for VPLS (also known as ELAN service) either gets peered or dropped.

The router tunnels Layer 2 packets between PEs.

The following figure depicts Layer 2 protocol tunneling.

**Figure 1: L2CP Tunneling**



L2CP packets are tunneled from NNI to NNI (depicted in red pipe). The Layer 2 traffic is sent through the Cisco NCS Routers, and these routers switch the traffic from end to end.

#### Restrictions

- VPLS service does not support LACP tunneling.
- VPWS and EVPN-VPWS services support LACP tunneling.

## L2CP Protocol Support on Cisco NCS Series Router

You do not need to configure L2CP tunneling explicitly. L2CP packets are tunneled over Layer 2 tunnel by default.

The following table lists the options that are supported on the router and displays the supported defaults and configuration options for the router.

| Protocol | Packet Type | Action             |
|----------|-------------|--------------------|
| CDP      | Untagged    | Peer               |
| LACP     | Untagged    | Peer               |
| LLDP     | Untagged    | Peer else Tunneled |
| STP      | Untagged    | Peer               |
| VTP      | Untagged    | Peer               |
| OAM      | Untagged    | Peer               |
| BPDU     | Untagged    | Tunneled           |

| Protocol | Packet Type | Action   |
|----------|-------------|----------|
| UDLD     | Untagged    | Peer     |
| CDP      | Tagged      | Tunneled |
| LACP     | Tagged      | Tunneled |
| LLDP     | Tagged      | Tunneled |
| STP      | Tagged      | Tunneled |
| VTP      | Tagged      | Tunneled |
| BPDU     | Tagged      | Tunneled |
| OAM      | Tagged      | Tunneled |
| ELMI     | Tagged      | Tunneled |
| UDLD     | Tagged      | Peer     |



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**Note** L2CP protocols over BVI is not supported.

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