

CDP & LLDP

Layer 2 discovery protocols share information with and discover information about neighboring (connected) devices, can be used to share layer 3 information, shared info includes host name, IP address, device type,..etc, due to sharing info about devices in the network they can be considered a security risk and often not used.

Cisco Discovery Protocol (CDP): enabled on Cisco devices by default, messages are periodically sent to multicast address 0100.0000.0000, when a device receives a CDP message it processes and discards it (doesn't forward it), only directly connected neighbors can become CDP neighbors, CDP messages are sent once every 60 seconds by default out of all ints in up state.

An entry for the neighboring device is added in CDP neighbor table, if a message is received for holdtime (180 seconds) the entry is removed, CDPv2 are sent by default.

Command: show cdp. Show cdp traffic. Show cdp interface. Show cdp neighbors. Show cdp neighbors details.

Command: show cdp entry <hostname>. [no] cdp run. → globally. **[no] cdp enable** → per interface.

Command: cdp timer <seconds>. Cdp holdtime <seconds>. [no] cdp advertise-v2 to switch between v1 & v2.

ARPA is a type of Ethernet encapsulation.

LLDP: Link Layer Discovery Protocol: usually disabled on Cisco devices by default, CDP and LLDP can run concurrently, Periodically sent to multicast 0180.C200.000E, messages are not forwarded, by default LLDP messages are sent every 30 seconds, default holdtime is 120 seconds, has a re initialization timer of 2 secs by default which delays the actual initialization of LLDP.

LLDP and CDP must be globally enabled to enable them on interfaces.

Command: [no] lldp run → to globally enable LLDP. **[no] lldp transmit/receive** → per interface.

Command: lldp timer <seconds>. lldp holdtime <seconds> lldp reinit <seconds>.

Command: show lldp. Show lldp traffic. Show lldp interface.

Command: Show lldp neighbors. Show lldp neighbors details. show lldp entry <hostname>.

Command: Show interfaces status (on a switch).