

## Lab 7 - Configuring CDP, LLDP, Syslog & NTP

**Please note this weeks lab is online only.**

**Before proceeding, review the slides Lecture 8 - Network Management (with solutions). These are available within Lecture 8 - Network Management Continued (St Patricks Day and all labs online) on the WAN Brightspace page and enter your answers in Lab 7 - Configuring CDP, LLDP, Syslog & NTP - QUESTIONS - 2025. Once you open your quiz, you will have two hours to complete.**

### Addressing Table

Device	Interface	IP Address
HQ	G0/0/0	192.168.1.1/24
	G0/0/1	192.168.2.1/24
	S0/1/0	192.168.3.1/30
Branch	G0/0/0	192.168.1.2
	S0/1/0	192.168.3.2/30
HQ-SW-1	VLAN 1	Not configured
HQ-SW-2	VLAN 1	Not configured
BR-SW-1	VLAN 10	
BR-SW-2	VLAN 10	
BR-SW-3	VLAN 10	
NTP Server	NIC	192.168.1.200
PC1	NIC	192.168.2.10
PC2	NIC	192.168.4.10
PC3	NIC	192.168.4.20

### Objectives

In this activity, you will configure a router to receive time information over NTP and configure devices with CDP and LLDP.

Configure CDP to run globally on a device.

Disable CDP on device interfaces where necessary.

Configure LLDP to run globally on a device.

Configure LLDP to send and receive messages according to requirements.

Configure a router to use an NTP server.

### Background / Scenario

A network administrator has been asked to investigate a new client's network. Documentation is incomplete for the network, so some information needs to be discovered. In addition, the NTP server needs to be configured on a router. Discovery protocols must also be adjusted to control traffic discovery protocol traffic and prevent information about the network from being received by potentially unauthorized hosts.

Some of the device IP addresses are unknown to you. You must determine what the IP addresses are so that you can connect to the devices over SSH in order to configure them. You can enter them into the Addressing Table as you discover them.

### Instructions

Use the table below to logon to the Branch switches when you need to do so.

Device	Username	User Password	Enable Secret
BR-SW1	admin	SW1admin#	SW1EnaAccess#
BR-SW2	admin	SW2admin#	SW2EnaAccess#
BR-SW3	admin	SW3admin#	SW3EnaAccess#

**Note:** Click the **Fast Forward Time** button in the blue bar below the topology to speed up STP convergence. You can also click it several times to speed up the CDP update process.

### Part 1: Configure LLDP

- Check if CDP is currently enabled on the HQ router using the **show cdp** command.

**QUESTION 1** Is CDP currently enabled on the HQ router?

**Before proceeding, go to the “Lab 7 - Configuring CDP, LLDP, Syslog & NTP” quiz on the Brightspace page and enter your answer for question 1. Leave the quiz open while you complete the rest of the lab sheet.**

- Disable CDP globally on the HQ router.
- Enable LLDP globally on HQ.
- On HQ, configure the links to the switches to only receive LLDP messages.
- Disable CDP on the HQ-SW-1 and HQ-SW-2 switches.
- Enable LLDP on the HQ-SW-1 and HQ-SW-2 switches.
- On the HQ-SW-1 and HQ-SW-2 switches, configure the links to the HQ router to only send, not receive, LLDP messages.
- Disable LLDP completely on the HQ-SW-1 and HQ-SW-2 access ports that are in use.

### Part 2: Configure CDP

- Check if CDP is currently enabled on the Branch router.

**QUESTION 2** Is CDP currently enabled on the Branch router?

**Before proceeding, return to the quiz on the Brightspace page and enter your answer for question 2. Leave the quiz open while you complete the rest of the lab sheet.**

- b. Activate CDP on the Branch router.
- c. Use the appropriate commands to check Branch's neighbours.

**QUESTION 3** What is the IP address of switch BR-SW-1?

**Before proceeding, return to the quiz on the Brightspace page and enter your answer for question 3. Leave the quiz open while you complete the rest of the lab sheet.**

- d. Connect to switch BR-SW1 over SSH. You will not be able to open a CLI window by clicking the Branch switches.
- e. Use the appropriate commands to check BR-SW-1's neighbours.

**QUESTION 4** What is the IP address of switch BR-SW-2?

**QUESTION 5** What is the IP address of switch BR-SW-3?

**Before proceeding, return to the quiz on the Brightspace page and enter your answers for questions 4 & 5. Leave the quiz open while you complete the rest of the lab sheet.**

- f. Connect to switches BR-SW2 and BR-SW3 over SSH. Configure the access ports that are in use to not send CDP messages out of the ports.

### Part 3: Configure NTP & Syslog

- a. Configure HQ to use the device at 192.168.1.200 as an NTP server.
- b. Verify the status of the NTP association using **show ntp associations**. Note: You may have to wait some time or fast forward time in Packet Tracer for the association to successfully form.

**QUESTION 6** What stratum level is the **NTP server** which HQ is getting its time from?

**Before proceeding, return to the quiz on the Brightspace page and enter your answer for question 6. Leave the quiz open while you complete the rest of the lab sheet.**

- c. Configure HQ to use the device at 192.168.1.200 as a Syslog server.
- d. Enable timestamps on log messages using the **service timestamps log datetime msec** command.

**If you have correctly configured all parts of the lab your activity score should now be showing as 100%. If so, click on "check results" in the activity window. Return to the Brightspace quiz one last time and enter the code into the appropriate question box (Q7) of the quiz.**

**You have completed the lab – please submit the Brightspace quiz**