

4.0 IP Services

Network Address Translation

- 4.1 Configure and verify inside source NAT using static and pools

Objective: 4.1
Learner Objective:
Title: Configure **and** verify **NAT**
Description: The prevalent use of RFC 1918 addresses within a **LAN** doesn't allow for networks to connect to resources across the internet. You will learn the how to configure NAT to use static, pools and dynamic translations.

Network Time Protocol

- 4.2 Configure and verify NTP operating in a client and server mode

Objective: 4.2
Learner Objective:
Title: Configure **and** Verify **NTP**
Description: **NTP** is a very useful time protocol the help insure devices on the **network** are synchronized **to** a single clock. You will learn how **to** configure a device **to** that **NTP server or to** be a **client** of of it.

DHCP and DNS

- 4.3 Explain the role of DHCP and DNS within the network
- 4.6 Configure and verify DHCP client and relay

Objective(s): 4.3 **and** 4.6
Learner Objective:
Title: Configure **and** Verify DHCP **and** DNS
Description: DHCP **and** DNS are important services that make it networking easier. You will learn how **DNS and** DHCP serve the **network** as well how **to** configure **and** verify a DHCP server.

SNMP

- 4.4 Explain the function of SNMP in network operations

Objective(s): 4.4
Learner Objective:
Title: Identify the function of **SNMP**
Description: **SNMP** provides many details **and** data about the devices within our networks. You will identify the function of **SNMP and** see the options **for** configuring it.

Syslog

- 4.5 Describe the use of syslog features including facilities and levels

Objective (s): 4.5
Learner Objective:
Title: Identify the features of Syslog
Description: Everything that occurs on a cisco device generates a message. You will see and learn how to interpret those messages.

PHB for QoS

- 4.7 Explain the forwarding per-hop behavior (PHB) for QoS such as classification, marking, queuing, congestion, policing, shaping

Objective(s): 4.7
Learner Objective:
Title: Identify Per-Hop **Behavior** for QoS
Description: QoS **behavior** can help in prioritizing traffic. You will learn how to **differentiate** Classification, Marking, Queuing, Congestion, Policing **and** Shaping for QoS.

Remote Access SSH

- 4.8 Configure network devices for remote access using SSH

Objective(s): 4.8
Learner Objective:
Title: Configure Secured Remote Access
Description: Accessing router and switches remotely require configuration. You will learn how to configure secured remote access to Cisco devices using SSH.

FTP/TFTP

- 4.9 Describe the capabilities and function of TFTP/FTP in the network

Objective(s): 4.9
Learner Objective:
Title: Describe the use of TFTP/FTP
Description: FTP **and** TFTP great protocols **to** help us **to** transfer files between a **client and** the server. You also see how we can move IOS files **from server** back onto a switch **or** router using TFTP **and** what is required **to do** so.