

Module 9 : CCNA - IP Connectivity and IP Services

1) Border Routers serve as a final router from outside untrusted networks and direct traffic into, out of, and throughout networks.

2) Types of access lists

- Standard ACL. An access-list that is developed solely using the source IP address.
- Extended ACL. An access-list that is widely used as it can differentiate IP traffic.
- ACLs everywhere. ACLs are enforced on each interface, in nearly all security or routing gear.
- ACL in order.
- Document your work.

- 3) Dynamic Host Configuration Protocol (DHCP) is a network protocol used to automate the process of configuring devices on IP networks.
- 4) DORA stands for Discover, Offer, Request, Acknowledge.
- 5) A Network Address Translation (NAT) is the process of mapping an internet protocol (IP) address to another by changing the header of IP packets while in transit via a router.
- 6) NAT cannot support applications where the initiator lies on the “outside”.
- 7) ACLs help us to adhere to the “least privilege” element of the zero-trust security model by filtering (allowing or denying) network traffic.
- 8) it provides the ability to limit what addresses will be allowed to send traffic

on individual switch ports within the switched network.

- 9) The command syntax format of a standard ACL is access-list access-list-number {permit|deny} {host|source source-wildcard|any}.
- 10) DHCP snooping listens to DHCP message exchanges and builds a binding database of valid tuples (MAC address, IP address, VLAN interface).
- 11) The function of the DHCP relay agent is to forward the DHCP messages to other subnets so that the DHCP server does not have to be on the same subnet as the DHCP clients.
- 12) The three main NAT types are static NAT, dynamic NAT, and port address translation (PAT).
- 13) The command syntax format of a standard ACL is access-list

access-list-number {permit|deny}
{host|source source-wildcard|any}.

14) SSH encrypts the data while Telnet sends data in plain text.

15) Login to the device using SSH / TELNET and go to enable mode.

- Go into the config mode.
- Exclude IP addresses from being assigned by DHCP by using the ip dhcp excluded-address FIRST_IP LAST_IP.
- Create a new DHCP pool with the ip dhcp pool NAME command.

16) Identifying the inside interface and the outside global interface by using the command “ip nat <inside/outside>” on the appropriate interfaces.