28/11/22

Aim: Configuring DHCP within LAN in a packet tracer

Info: DHCP - Dynamic Host Configuration Protocol
- Dynamically allocate IP address
- applied in mobile networks
- Follows procedure as follows

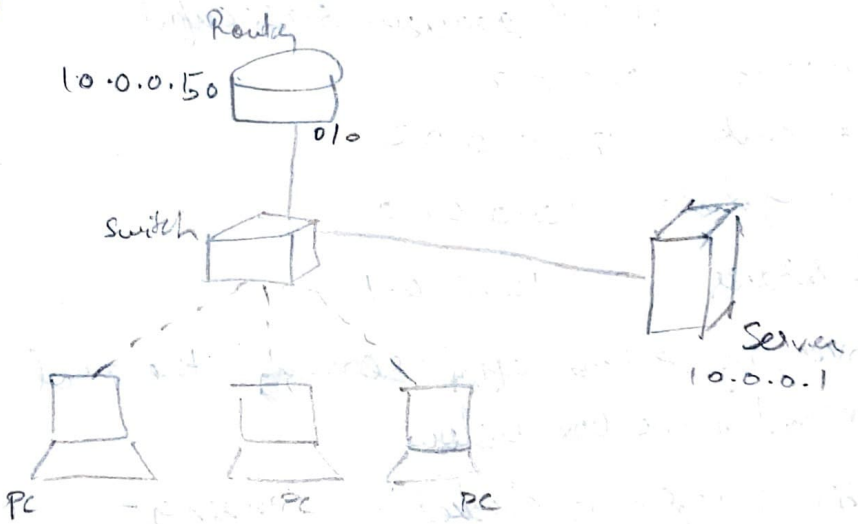
D - Discover → node → bx in n/w

O - Offer → DHCP servers ↗ reap back the node

R - Request → Node selects one & requests

A - Acknowledgement → Confirmation is sent to node

Topology:



Procedure:- • Place 3 generic PC's, 1 generic Switches, 1 generic router & 1 generic server

- Connect PC's to switch & to router, connect server to switch
- Click on router → CLI → Set the IP address of its port
- Click on server → config → set gateway address → Fastethernet → Set IP address → Services → DHCP
- In DHCP tab, click ON, enter Pool name

→ Set the gateway as router's IP address & TFTP server with same IP address
→ Set DNS server as the IP address of the server
→ Enter Start IP address
→ Save

- Click on a PC → Desktop → IP configuration select DHCP
- Ping PC to PC

Observation:-

- upon selecting DHCP in IP configuration we get the following output

DHCP request successful
IP address 10.0.0.2
Subnet mask 255.0.0.0
Default gateway 10.0.0.50
DNS server 10.0.0.1

- In server, DHCP Tab after serving the pool is displayed in the box below
- Connection integrity is checked by pinging - Results all the packets are sent & received with 0% loss