

Practical - 3

Aim: To Design and configure a network using Dynamic Host Configuration Protocol (DHCP).

Scenario:

Mr. Jason has hired a new network admin and asked him to create a network for his company. He has given him the liberty to erase all the previous network setup and create a new one as per his understanding and expertise. Below are the details provided by Mr. Jason to the network admin.

- 1) The company has 3 departments – Admin, HR, Sales.
- 2) Each department have 10 users (add at least 3 devices in each network)
- 3) The networking device available in the organization is 3 DNS servers, 2 DHCP servers, 3 routers and 3 switches.
- 4) All the users should get the IP address dynamically.
- 5) The organization has their own inbuilt Domain Name Server (DNS) which will have the details of the website that the user can access.
- 6) The users of the company are allowed to access only mentioned websites in the office premises. The list of the website is mentioned below:

Admin – google, yahoo, cisco

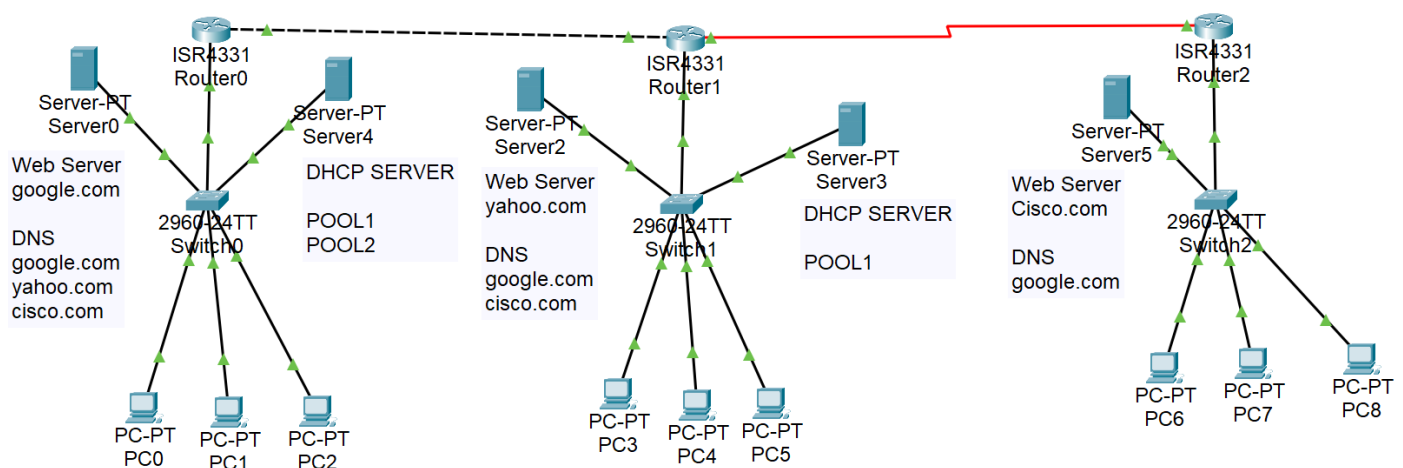
HR – google, cisco

Sales – google

Help the admin to create the network and establish the connection between the devices.

Procedure:

- 1) Create network as given below



- 2) Configure IP address (Routers, DNS servers, DHCP servers)
- 3) Configure dynamic routing table (RIP in routers)
- 4) Configure DNS service
- 5) Configure DHCP server
- 6) Configure IP-Helper command to appropriate interface of a router
- 7) Set PC to get IP address based on DHCP

Configuration:

Output:

Conclusion:

Note:

Make sure last two digits of your enrollment numbers appears in network IP address that must be visible in snapshot of the cisco packet tracer.
i.e. 192.XX.10.1 (XX indicates last two digits of your enrollment no.)