LAB ASSIGNMENT-3

Router Configuration with Cisco Packet Tracer

Experiment Overview:

In this experiment, you will configure a router and two PCs using Cisco Packet Tracer.
The computers are connected to the router using copper straight-through cables. After
setting up the network, you will test the connectivity by sending a simple PDU from PC0
to PC1. The successful simulation will demonstrate the router's capability to handle data
transfers between multiple devices.

Procedure:

Step 1: Configuring Router1

1. Select the router and open CLI.

2. Press ENTER to start configuring Router1.

3. Activate privileged mode:

○ Type enable

4. Access the configuration menu:

○ Type config t (configure terminal)

5. Configure interfaces of Router1:

○ FastEthernet0/0:

■ Type interface FastEthernet0/0

■ Configure with the IP address 192.168.10.1 and Subnet mask
255.255.255.0

○ FastEthernet0/1:

■ Type interface FastEthernet0/1

■ Configure with the IP address 192.168.20.1 and Subnet mask
255.255.255.0

6. Finish configuration:

○ Type no shutdown to activate the interfaces

Step 2: Configuring PCs

1. Assign IP addresses to each PC:

○ PC0:

■ Go to the desktop, select IP Configuration, and assign the following:

■ IP address: 192.168.10.2

■ Subnet Mask: 255.255.255.0

■ Default Gateway: 192.168.10.1

○ PC1:

■ Go to the desktop, select IP Configuration, and assign the following:

■ IP address: 192.168.20.2

■ Subnet Mask: 255.255.255.0

■ Default Gateway: 192.168.20.1

Step 3: Connecting PCs with Router

1. Connect the devices using copper straight-through cables:

○ Connect FastEthernet0 port of PC0 to FastEthernet0/0 port of Router1

○ Connect FastEthernet0 port of PC1 to FastEthernet0/1 port of Router1

Configuration Tables

Router Configuration Table:

Network Topology Design

Simulation of Designed Network Topology

Sending a PDU from PC0 to PC1

1. Open the simulation mode in Packet Tracer.

2. Send a PDU from PC0 to PC1:

○ Observe the packet traveling from PC0 to the router and then to PC1.