Exp No: 10 Internetworking with Routers in Cisco Packet Tracker

AIM:

a) Design & configure a simple internetworking using a router.

A router & 2 PC's are used, computers are connected with routers using a copper straight through cable.

Procedure:

Step1:

- Select router & open CLI
- press enter to start configuring router
- Type enable to activate the privileged mode.

Router1 CLI

Router > enable

Router # config t

Router (config) # ip address 192.168.10.255.255.0

Router (config) # no shutdown

Router (config.if) # internet Ethernet 0/1.

Router (config.if) # no shutdown

PC1:

IP - 192.168.20.2

Subnet Mask - 255.255.255.0

Gateway - 192.168.20.1

Verification:

- Send a simple PDU from PC0 to PC1 to check Connectivity.

- If Succe
correctly.

Result:
The
work us

B) Design &
wireless

Addressing

Device
PC
wireless router
Cisco Server
Laptop

Procedu
Port 1
- Add
Cisco
PC
Rout
Mod
Clo

- If successful the network is configured correctly.

Result:

Therefore design & configure of simple internet work using a router.

8) Design & configure an internetwork using wireless router, DHCP server & internet cloud.

Addressing table:

Device	Interface	IP address	Subnet Mask	Gateway
PC	Ethernet	DHCP		192.168.0.1
Wireless router	LAN	192.168.0.1	255.255.255.0	
Cisco Server	ethernet	208.67.220.220.	11	
laptop	wireless 0	DHCP		

Procedure:

Part 1: Build the network

- Add: PC, laptop, wireless router, Coble, modem, Cisco com Server.

PC <-> Router

Router <-> modem

Modem <-> Cloud

Cloud <-> Server

Part 2: Configure devices

- Wireless Router
  Set SSID = Home network
  enable DHCP Server,
  Set DNS = 208.67.220.220
  Save settings

- laptop:
  IP assigned automatically via DHCP.

- PC:
  Set IP config → DHCP
  Verify IP using IP config

- Internet cloud
  config Connections : Coaxial → Ethernet, provides = Cable

- Cisco.com Server:
  DHCP settings:
  Pool name : DHCP Pool
  DNS: 208.67.220.220
  Start IP : 208.67.220.1
  Max users : 50.

Post 3:
Verify Connectivity

on PC : IP Config /release
IP Config /renew
Ping Cisco.com

Student observation

1. Wireless Router provides wifi & DHCP for IP Config

2. DHCP Ser

3. Internetwor
Switch &

Result:

Server
& Verifi

22/x/

2. DHCP simplifies config by assigning IP's automatically.

3. Internetwork can also be designed using router. Switch & ethernet cables for wired setup.

Result:

Internet with wireless router, DHCP server & internet cloud successfully configured & verified.

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