x:130
110/25

Internetworking with router in CISCO Packet Tracer.

AIM:

To design and configure internetwork using a router in cisco packet tracer and verify the network connection between two PC using simple

Theory:

Inter connect is process of connecting multiple network through router. a router helps in transfer data between different network segment. router config with two PCs are connect, to one network is config, PC0 to PC1 UPD is verified communication.

Procedure:

step -1: Configure router

- select the route & open IT's lab.
- Press enter start config
- Enter following command to assign IP address and enable interfaces.

Router > enable

Router # config

Router (config) I t interface fast Ethernet 0/0

Router (config-if) # ipaddress 192.168.10.1 255.255.0

Router (config-if) # no shut down

Router (config-if) # Fast Ethernet 0/1

Router (config-if) # ip address 192.168.20.1

Router (config-if) # no shut down

stp 2: config PCs

- click on PC0 - Desktop → IP config
- Assign IP address, subnet mask, default gateway
- click on PC1 → Desktop → IP config.

stp 3: connecting devices

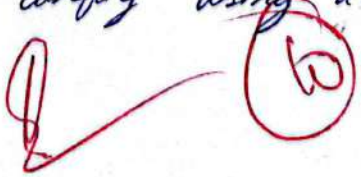
- Connect PC0 to router using a copper cable
- Connect PC1 router using copper cable.

stp 4: Testing connectivity

- Go to simulation mod
- Send to simple PDU from PC0 to PC1
- observe that packet successful PC1 & an acknowledge received back to PC0

Result:

Hence, the internetwork was successfully designed & config using a router



Exp. No: 13b
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Internetwork with wireless routers

Aim

To design & configure internetwork using a wireless router, DHCP server & internet cloud in CISCO packet tracer.

Theory:

A wireless network allocates devices to connect and communicate using radio waves. The DHCP server automatically assign IP address to connected device, while the DNS provides domain name IP address dynamically and connect to internet wireless router

Procedure:

step 1: open cisco packet tracker add the wireless router, PC, laptop, internet cloud

step 2: connect devices as follow: connect PC to wireless router LAN port using a copper straight cable, connect wireless cable modems internet cloud coaxial cable.

stp 3: configure wireless router by opening its GUI tab. select wireless tab & setting SSID to home Network

stp 4: configure the Laptop by powering off & replacing ethernet module with wireless module.

stp 5: configure PC by opening desktop, IP Configure, select DHCP & verify IP address in 192.168.0.x range

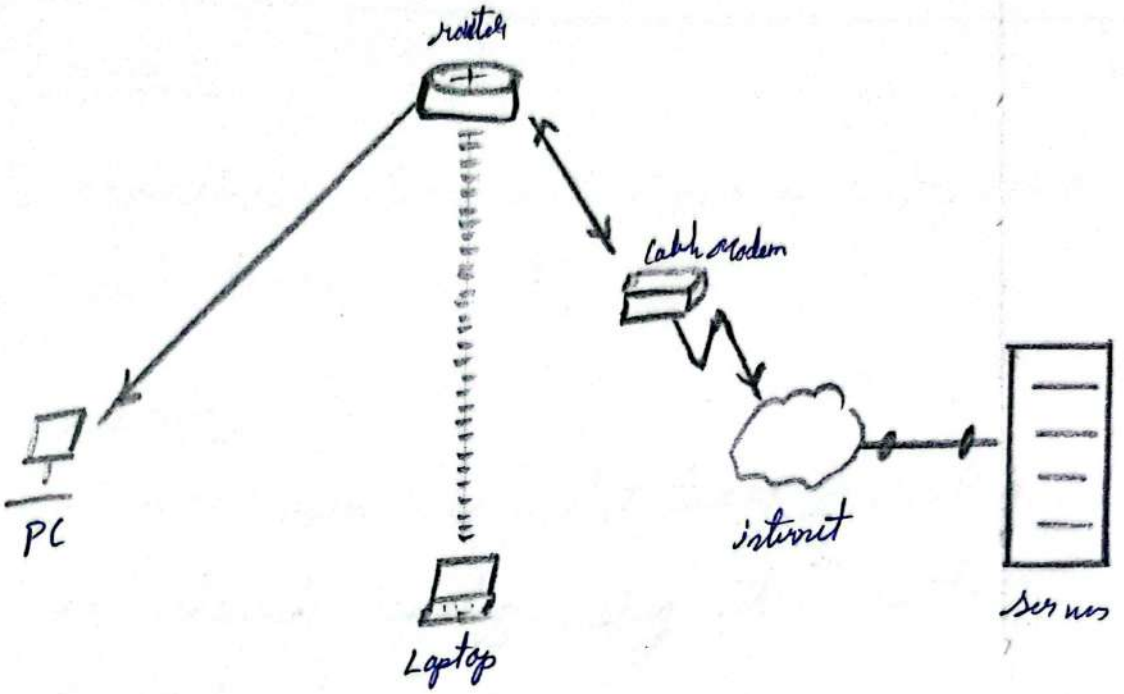
stp 6: configure internet cloud by ensuring module PT-Cloud-NM-1CX added, defining Provider network as cable.

stp 7: configure cisco.com server running on DHCP service, setting pool name to DHCPool. DNS server

stp 8: In same server enable DNS service add a new record with name cisco.com.

stp 9: config -> setting on server, to set gateway 208.67.220.1 & DNS server to 208.67.220.220, fast Ethernet0 assign IP address

Diagram:



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Result:

The wireless internetwork using DHCP server and internet cloud was successfully designed & configured.