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LAB 05

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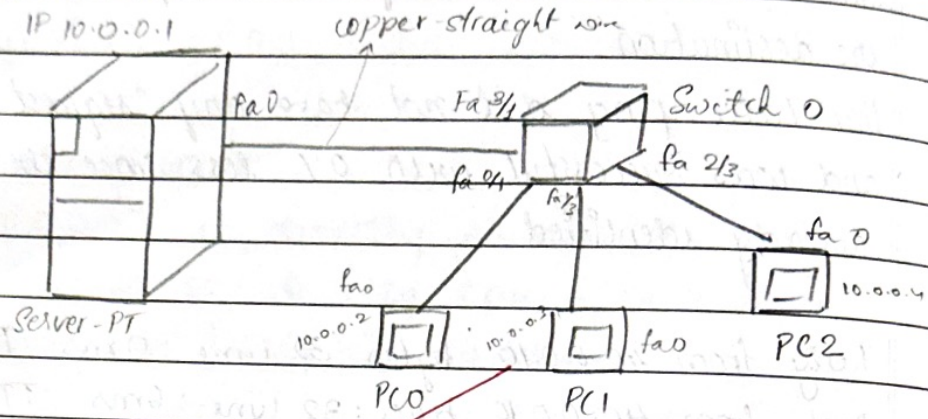
DATE :

Aim: To design a DHCP within LAN

Topology :

(1)

Within LAN



Procedure :

1. Place 3 PC's, 1 server and one switch and connect all devices to the switch using copper straight wire.
2. Go to Server PT → Desktop → IP configuration
 IP address - 10.0.0.1
 Default gateway - 10.0.0.0
3. In server PT go to config → services → DHCP turn service to on
 Poolname: switch 1
 Default gateway: 10.0.0.0
 Start IP: 10.0.0.3
 Max no. of users: 100
 Click on Add
4. Go to each PC Desktop - IP configuration and change IP configuration from static to DHCP. The IP address will be assigned automatically
5. Ping from PC0 to PC3

Observations :

1) All connections are successful

2. Ping 10.0.0.4

pinging 10.0.0.4 with 32 bytes of data

Reply from 10.0.0.4 : bytes = 32 time = 1ms TTL = 120

Reply from 10.0.0.4 : bytes = 32 time = 0ms TTL = 120

Reply from 10.0.0.4 : bytes = 32 time = 0ms TTL = 120

Reply from 10.0.0.4 : bytes = 32 time = 0ms TTL = 120

Ping status for 10.0.0.4

Packets :- sent = 4 , received = 4 , lost = 0

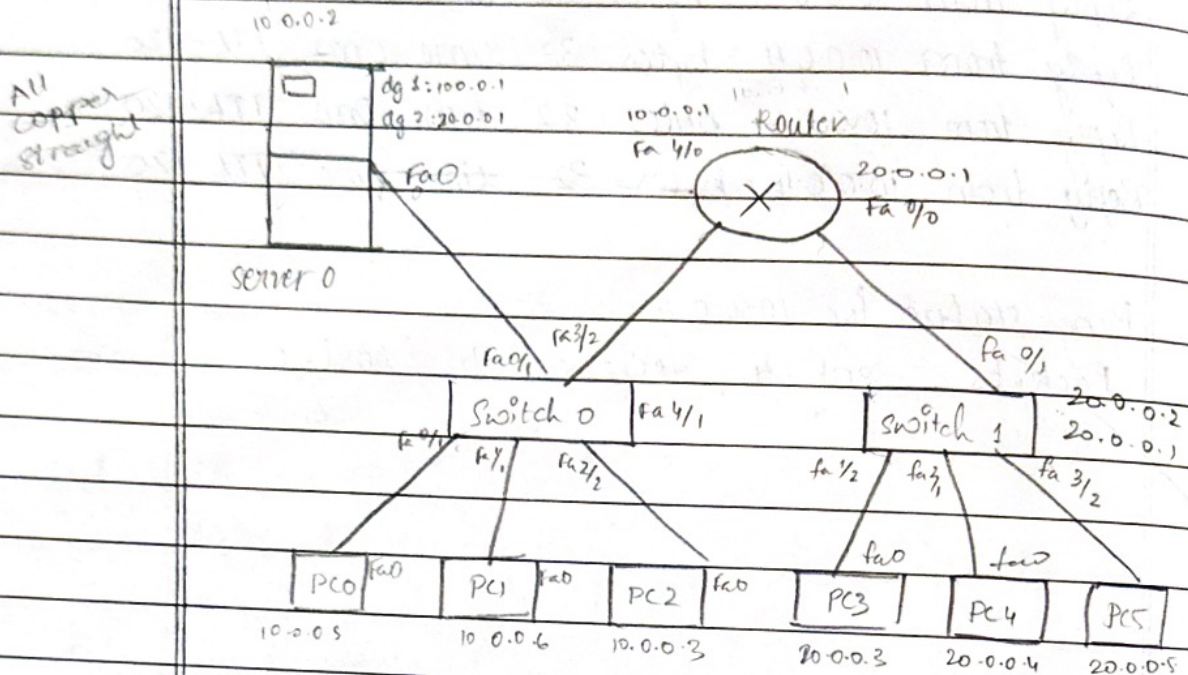
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LAB 06

PAGE NO :

DATE :

Aim : To design a DHCP outside LAN

Topology :
outside LAN

Procedure :

1 Place 6 PC's, 2 switches, 1 server, 1 router and connect them as shown in the figure

2 Server → Desktop → IP ~~address~~ configuration
 IP address - 10.0.0.2
 Default gateway - 10.0.0.1

3 config → services → DHCP, turn services on
 Poolname: switch 1
 Default gateway 10.0.0.1
 Start IP: 10.0.0.3
 max users: 100
 click on add

Poolname: Switch 2

Default gateway : 20.0.0.1
Start IP : 20.0.0.3

4. Go to router C1

>enable

#config terminal

#interface fastethernet 4/0

#ip address 10.0.0.1 255.0.0.0

#ip-helper-address 10.0.0.2

#no shut

Exit

#interface fastethernet 0/0

#ip address 20.0.0.1 255.0.0.0

#no shut

Exit

All router, switch connections go up

5. Go to all 6 PC's and change IP ~~address~~ configuration from static to DHCP, address will be automatically assigned

6. Ping PC0 to PC5

~~OBSERVATIONS:~~

~~Pinging 20.0.0.4 with 32 bytes of data~~

~~Request time out~~

~~Ping statistics:~~

~~Packets:- sent=4 Received=0, Lost=4 (100% loss)~~

~~When, ping sent across routers, request timeout~~

Pinging 20.0.0.23 with 32 bytes of data

Reply from 20.0.0.23 bytes=32 time=3ms TTL=120

Reply from 20.0.0.23 bytes=32 time=3ms TTL=120

Reply from 20.0.0.23 bytes=32 time=3ms TTL=120

Reply from 20.0.0.23 bytes=32 time=2ms TTL=120

Packets:- sent=4, Received=4 lost=0 (0% loss)

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