

Configure DHCP within a LAN and outside LAN

Lab - 04

Configure DHCP within a LAN and outside LAN.

* Create topology:

* In server

Set IP address 10.0.0.1 (config setting → 10.0.0.25
(brackman))

Services → DHCP → on

Services → DHCP → Default gateway
→ 10.0.0.25

Service Pool

Start IP address 10.0.0.2

Same

→ Service Pool 1

Gateway → 10.0.0.25

Start IP address 20.0.0.2

add

→ Service Pool 2

Gateway → 10.0.0.25

Start IP address 40.0.0.2

add.

* In router :-

Set two network IP address

* config t

* interface fastEthernet 0/0

* ip address 10.0.0.25 255.0.0.0

* No shut

(Similarly 20.0.0.25)

* config t

* interface fastEthernet 0/0

* ip helper-address 10.0.0.1

* no shut

→ Static route (for 10.0.0.0 IP)
config
ip route 10.0.0.0 255.0.0.0 30.0.0.25

→ In router 2
* Set IP address
config +
interface fast ethernet 0/0
ip address 10.0.0.26 255.0.0.0
no shut

* config
interface serial 2/0
ip address 30.0.0.26 255.0.0.0
no shut

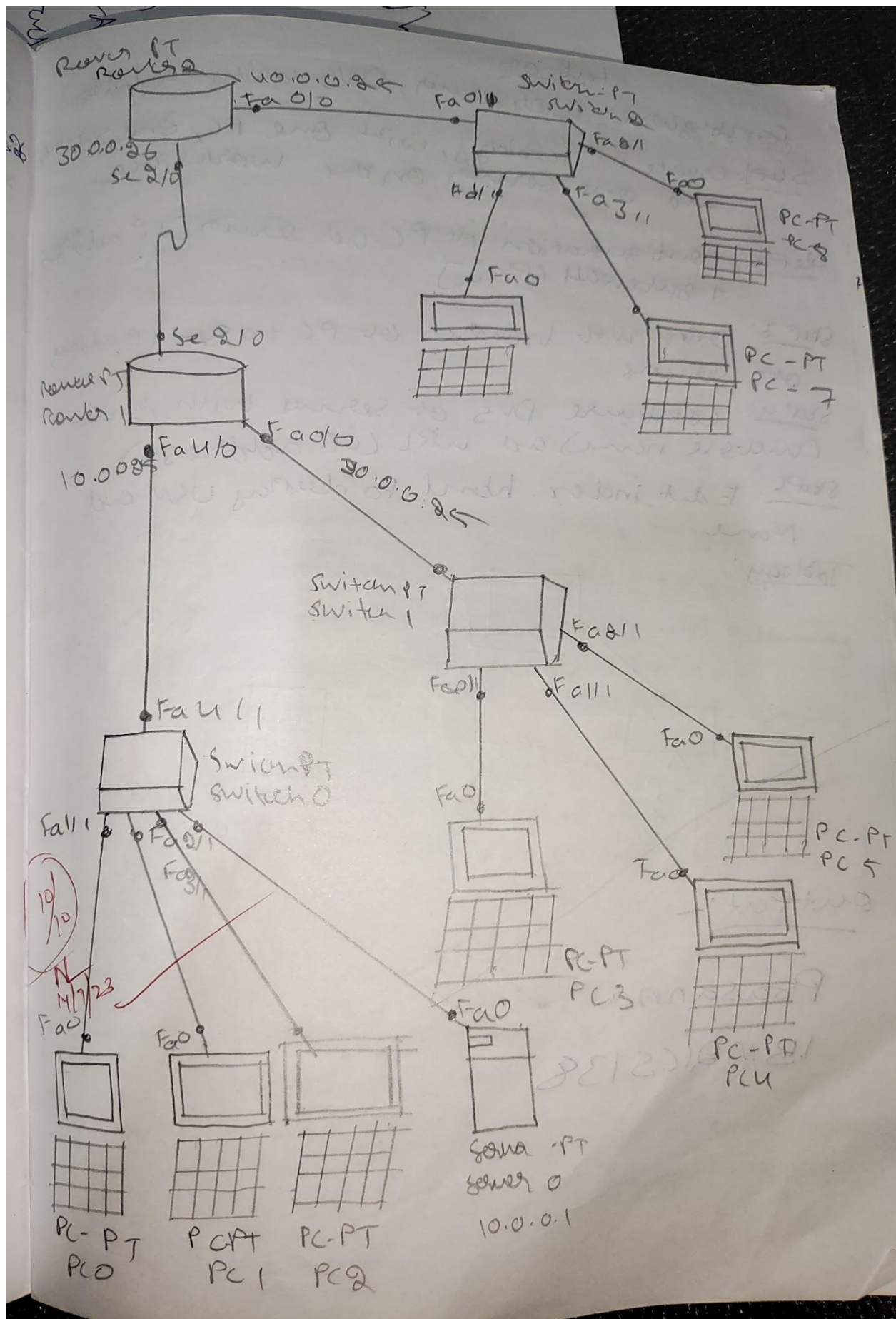
→ Static routing for 10 & 20 network.
config +
ip route 10.0.0.0 255.0.0.0 30.0.0.25
ip route 20.0.0.0 255.0.0.0 30.0.0.25
no shut

→ Setting helper address
config +
interface fast ethernet 0/0
ip helper-address 10.0.0.1
no shut

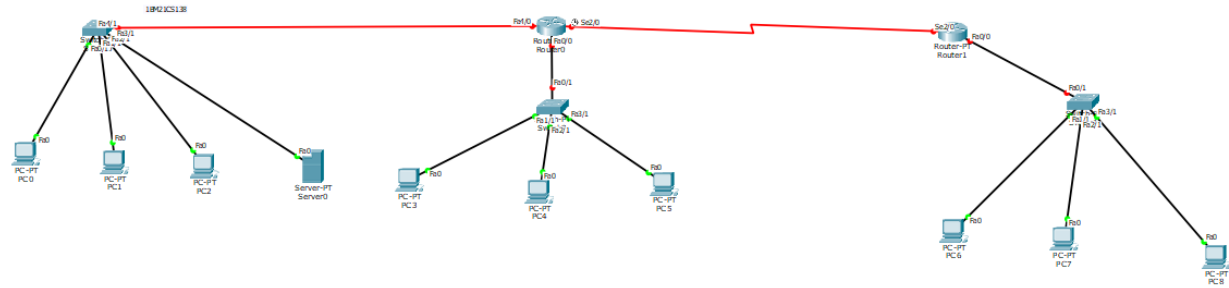
Output

In any PC

Desktop → IP configuration → DHCP
(Dynamic IP address is assigned to all
PC by server)



Topology:



Output:

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☒ DHCP ☐ Static

IPv4 Address 10.0.0.2

Subnet Mask 255.0.0.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::260:2FFF:FE75:6CE1

Default Gateway

DNS Server

802.1X