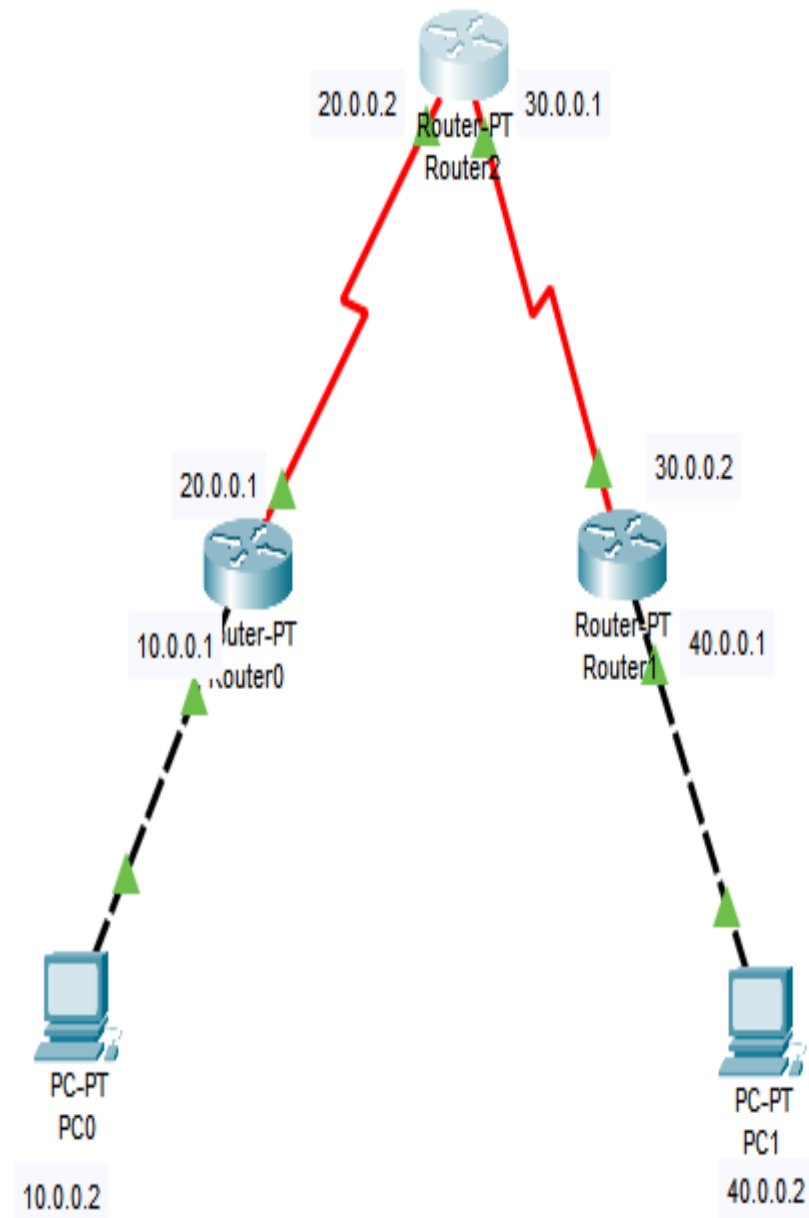


# Lab-2

lab2-b) Demonstrate the configure of default routers to the router



*Fig-1.1 Demonstrate the configure of default routers to the to the router*

```

Pinging 30.0.0.1 with 32 bytes of data:

Reply from 30.0.0.1: bytes=32 time=9ms TTL=254
Reply from 30.0.0.1: bytes=32 time=8ms TTL=254
Reply from 30.0.0.1: bytes=32 time=7ms TTL=254
Reply from 30.0.0.1: bytes=32 time=9ms TTL=254

Ping statistics for 30.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 7ms, Maximum = 9ms, Average = 8ms

PC>ping 40.0.0.1

Pinging 40.0.0.1 with 32 bytes of data:

Reply from 40.0.0.1: bytes=32 time=14ms TTL=253
Reply from 40.0.0.1: bytes=32 time=7ms TTL=253
Reply from 40.0.0.1: bytes=32 time=7ms TTL=253
Reply from 40.0.0.1: bytes=32 time=15ms TTL=253

Ping statistics for 40.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 7ms, Maximum = 15ms, Average = 10ms

PC>ping 20.0.0.1

Pinging 20.0.0.1 with 32 bytes of data:

Reply from 20.0.0.1: bytes=32 time=0ms TTL=255
Reply from 20.0.0.1: bytes=32 time=0ms TTL=255
Reply from 20.0.0.1: bytes=32 time=0ms TTL=255
Reply from 20.0.0.1: bytes=32 time=0ms TTL=255

Ping statistics for 20.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>ping 20.0.0.2

Pinging 20.0.0.2 with 32 bytes of data:

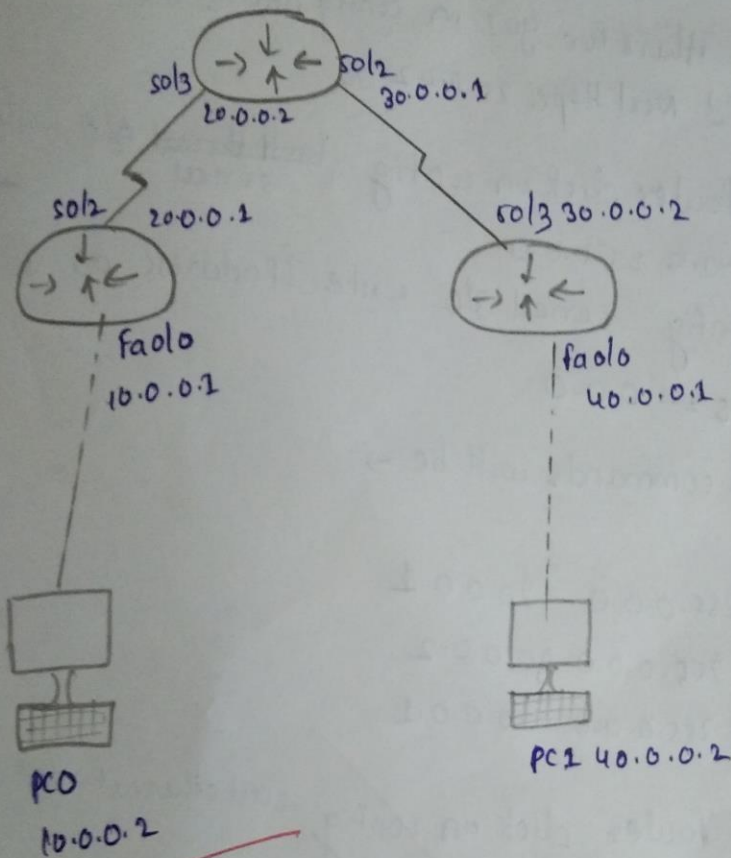
Reply from 20.0.0.2: bytes=32 time=8ms TTL=254
Reply from 20.0.0.2: bytes=32 time=6ms TTL=254
Reply from 20.0.0.2: bytes=32 time=1ms TTL=254
Reply from 20.0.0.2: bytes=32 time=10ms TTL=254

Ping statistics for 20.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 10ms, Average = 6ms

```

**Fig 1.2 lab2-b) Demonstrate the configuration of default routers to the router and explore the ping command**

LAB-III) demonstrate the configuration of default ~~route~~ routes to the router  
 15/10/2024



# IP route →  
 destination n/w IP destination mask next hop - help us to reach the  
 unknown network.

② ip route 30.0.0.0 255.0.0.0 20.0.0.1

③ show ip route

④ # ip route

30.0.0.0

255.0.0.0

20.0.0.2

⑤ # ip route

40.0.0.0

255.0.0.0

20.0.0.2

Steps for configure the router →

① take 3 routers

② and take 2 pc from end devices

③ click on the first pc and click on the Desktop and put IP address as 10.0.0.2, subnet mask 255.0.0.0 and Default gateway 10.0.0.1

④ click on first Router and click on config and in that write IP address as 20.0.0.1, subnet Mask 255.0.0.0

⑤ click on serial 2/0 write IP address as 20.0.0.1 and subnet Mask will be 255.0.0.0.

⑥ in config first Router click on CLI and write command like  
# show iproute

# iproute 20.0.0.0 255.0.0.0 20.0.0.2

# iproute 40.0.0.0 255.0.0.0 20.0.0.2

# iproute 30.0.0.0 255.0.0.0 20.0.0.2

similar step will be there for GUI in config static network add 20.0.0.1 Mask 255.0.0.0 and Next Hop 20.0.0.2

⑦ click on the Second Router click on config ~~fast ethernet~~ serial 2/0 write 20.0.0.2 & subnet Mask 255.0.0.0  
click on the ~~config~~ serial 3/0 write IP address as 30.0.0.2 and subnet mask as 255.0.0.0.

⑧ go to the CLI and commands will be →

# show iproute

# iproute 20.0.0.0 255.0.0.0 20.0.0.1

# iproute 40.0.0.0 255.0.0.0 30.0.0.2

# iproute 10.0.0.0 255.0.0.0 20.0.0.1

⑧ similarly for Third Router click on config fast ethernet 0/0 write - 40.0.0.2 and Mask address - 255.0.0.0  
click on serial 2/0 where IP address should be 30.0.0.2 subnet mask 255.0.0.0



In router 3<sup>rd</sup> when we click on CLI we should write

IP route 30.0.0.0 255.0.0.0 30.0.0.1  
 IP route 20.0.0.0 255.0.0.0 30.0.0.1  
 IP route 10.0.0.0 255.0.0.0 30.0.0.1

similar for pc1 go to desktop where static IP address 40.0.0.2, 255.0.0.0  
 Default gateway - 40.0.0.1

go to first pc1 and we should execute ping command  
 → ping 40.0.0.1

off. observation →

Pinging 40.0.0.1 with 32 bytes of data:

Reply from 40.0.0.1 bytes=32 time=4ms TTL=253  
 Reply from 40.0.0.1 bytes=32 time=7ms TTL=253  
 Reply from 40.0.0.1 bytes=32 time=7ms TTL=253  
 Reply from 40.0.0.1 bytes=32 time=15ms TTL=253

Ping statistics for 40.0.0.1:

Packets sent=4 Received=4 Lost=0 (0% loss)

Approximate round trip time in milliseconds:

Minimum=7ms, Maximum=15ms, Average=10ms

*show ip route*

show ip route

C 10.0.0.0/8 is directly connected fastEthernet0/0  
 C 20.0.0.0/8 is directly connected, serial 1/0  
 S 30.0.0.0/8 [110] via 20.0.0.2  
 S 40.0.0.0/8 [110] via 20.0.0.2

*Pass*  
*15/10/24*