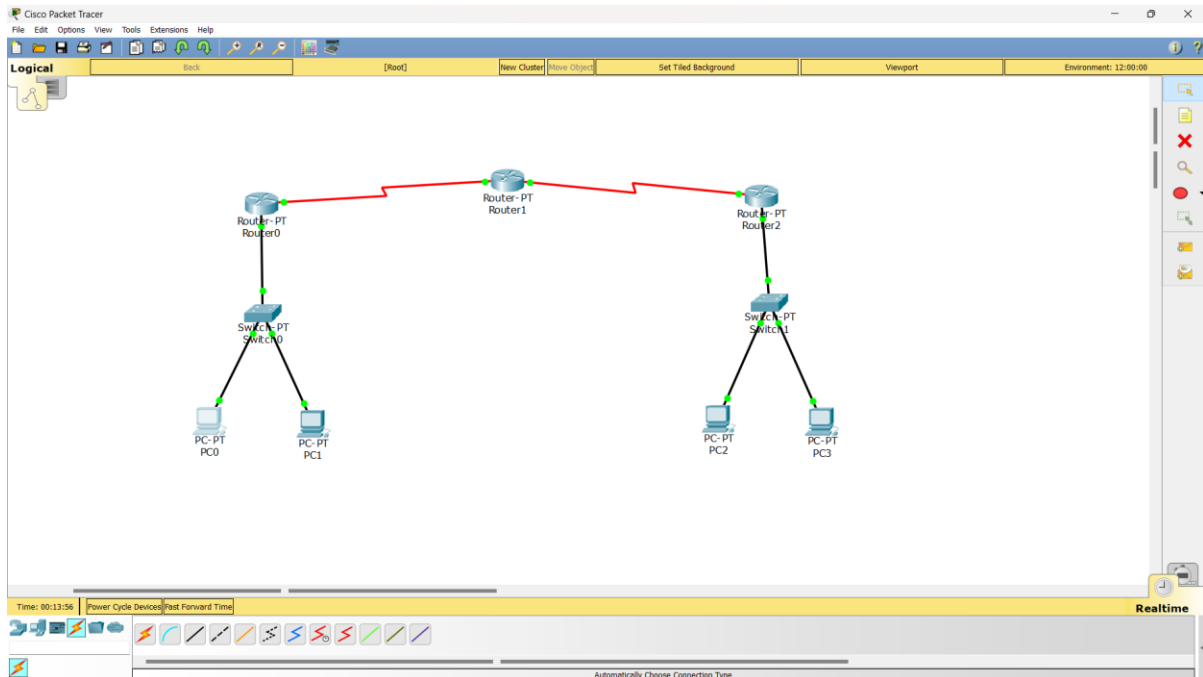


LAB 4

Aim of the program

Configuring default route to the Router

Topology



Procedure

```
Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

C    10.0.0.0/8 is directly connected, FastEthernet0/0
C    20.0.0.0/8 is directly connected, Serial2/0

Router#config terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip route 0.0.0.0 0.0.0.0 20.0.0.2
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

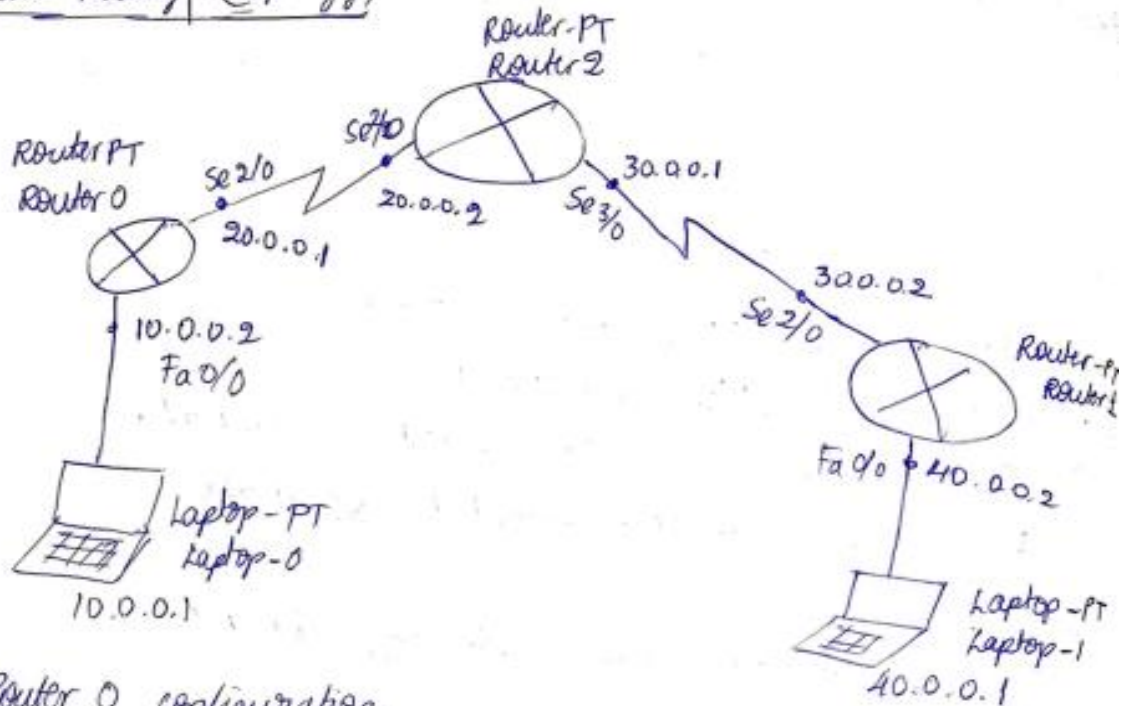
Gateway of last resort is 20.0.0.2 to network 0.0.0.0

C    10.0.0.0/8 is directly connected, FastEthernet0/0
C    20.0.0.0/8 is directly connected, Serial2/0
S*   0.0.0.0/0 [1/0] via 20.0.0.2
```

Lab - 5

1/12/22

Default Routing (Topology)



Router 0 configuration

Router > enable

Router # config terminal

Router (config) # interface fast Ethernet 0/0

Router (config-if) # ip address 10.0.0.2 255.0.0.0

Router (config-if) # no shutdown

Router (config-if) # exit

Router (config) # interface serial 2/0

Router (config-if) # ip address 20.0.0.1 255.0.0.0

Router (config-if) # no shutdown

Router (config-if) # exit

Router (config) # exit

Router # show ip route

Router # config terminal

Router (config) # ip route 0.0.0.0 0.0.0.0 20.0.0.2

Router (config) # exit

Router 1 configuration :

```
Router > enable
Router # config terminal
Router (config) # interface serial 2/0
Router (config-if) # IP address 30.0.0.2 255.0.0.0
Router (config-if) # no shutdown
Router (config-if) # exit
Router (config) # interface fastEthernet 0/0
Router (config-if) # IP address 40.0.0.2 255.0.0.0
Router (config-if) # no shutdown
Router (config-if) # exit
Router (config) # exit
Router # show ip route
Router # config terminal
Router (config) # ip route 0.0.0.0 0.0.0.0 30.0.0.1
Router (config) # exit
```

Router-2 configuration :

```
Router > enable
Router # config terminal
Router (config) # interface serial 2/0
Router (config-if) # IP address 20.0.0.2 255.0.0.0
" # no shutdown
" # exit
Router (config) # interface serial 3/0
Router (config-if) # IP address 30.0.0.1 255.0.0.0
" # no shutdown
" # exit
Router (config) # exit
```

Router # show ip route
Router # config terminal
Router (config) # ip route 10.0.0.0 255.0.0.0 20.0.0.1
Router (config) # ip route 40.0.0.0 255.0.0.0 30.0.0.2
Router (config) # exit

command prompt

C:\> ping 10.0.0.1

Pinging 10.0.0.1 with 32 bytes of data:

Reply from 10.0.0.1: bytes=32 time=15ms TTL=125

Reply from 10.0.0.1: bytes=32 time=4ms TTL=125

Reply from 10.0.0.1: bytes=32 time=11ms TTL=125

Reply from 10.0.0.1: bytes=32 time=6ms TTL=125

Ping statistics for 10.0.0.1:

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

Approximate round trip times in milliseconds:

Minimum = 4ms, Maximum = 15ms, Average = 9ms

Output

```
Packet Tracer PC Command Line 1.0
C:\>ping 40.0.0.1

Pinging 40.0.0.1 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 40.0.0.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 40.0.0.1

Pinging 40.0.0.1 with 32 bytes of data:

Reply from 10.0.0.10: Destination host unreachable.
Reply from 10.0.0.10: Destination host unreachable.
Reply from 10.0.0.10: Destination host unreachable.
Reply from 10.0.0.10: Destination host unreachable.

Ping statistics for 40.0.0.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 40.0.0.1

Pinging 40.0.0.1 with 32 bytes of data:

Request timed out.
Reply from 40.0.0.1: bytes=32 time=10ms TTL=125
Reply from 40.0.0.1: bytes=32 time=10ms TTL=125
Reply from 40.0.0.1: bytes=32 time=10ms TTL=125

Ping statistics for 40.0.0.1:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 10ms, Maximum = 10ms, Average = 10ms

C:\>
```