

WEEK 3

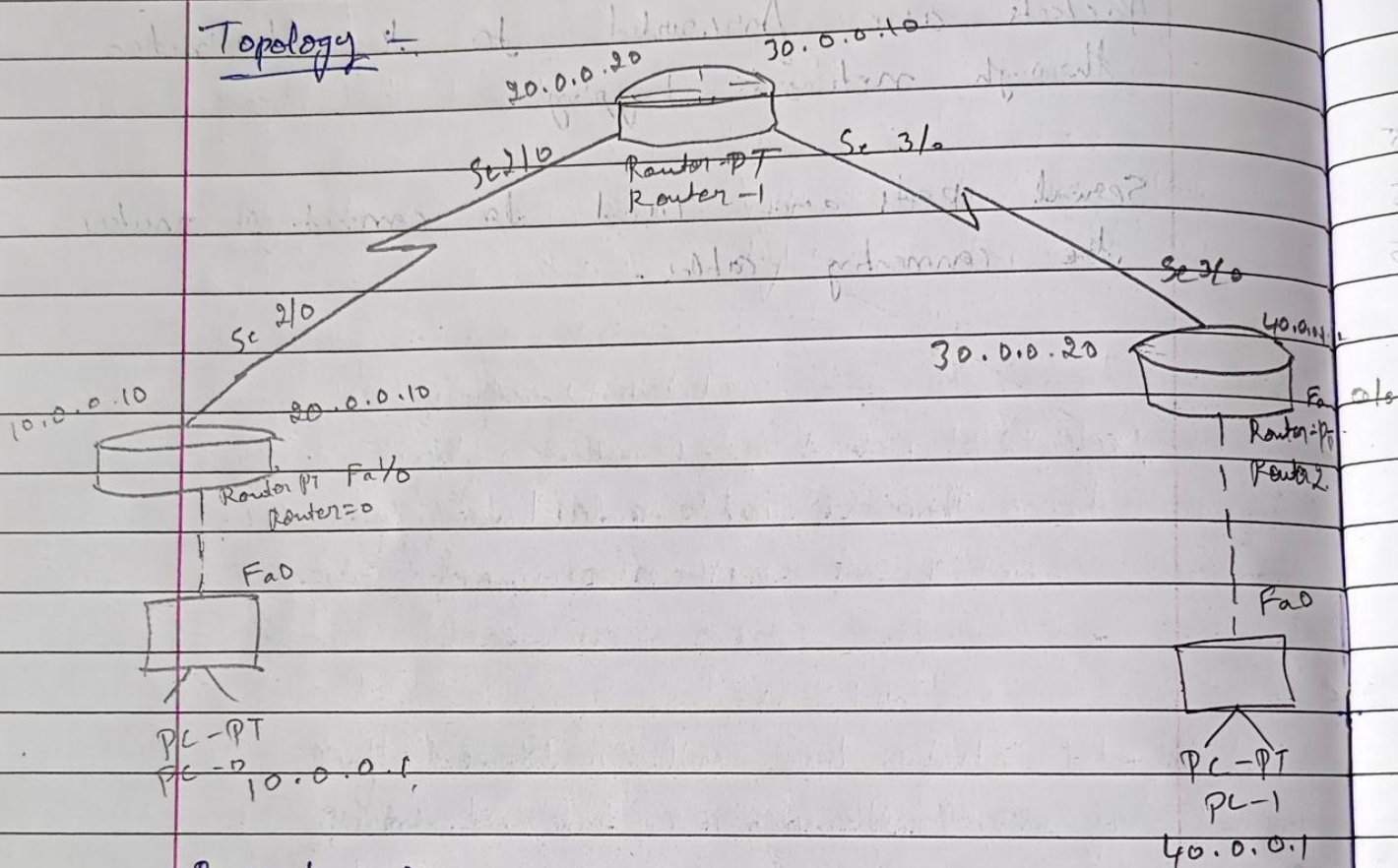
Configure default route, static route to the

Router. OBSERVATION:

Program - 3.1

AIM: Configure default router; static route to the Router.

Topology:



Procedure:

- Connect 3 Routers and 2 PC's using Copper cross-over Cable for PC to router and a serial DCF Cable to connect router to router.
- Set the IP address of both PC's and respective gateway ~~router~~ number.
- For all 3 Routers set the respective 2 IP address ~~eq~~ in CLI mode by using these commands.

Step 4: IP address 10.0.0.10 255.0.0.0

Step 5: No shut

Step 6: Exit

Step 7: Interface se 2/0

Step 8: IP address 20.0.0.10 255.0.0.0

Step 9: No shut

Step 10: Exit

Step 11: Exit

- Repeat these commands for other two routers with their respective IP addresses.

- For Router 1, set the IP route of other IP addresses statically by using following steps.

Step 1: Config T

Step 2: IP route 10.0.0.0 255.0.0.0 20.0.0.10

Step 3: IP route 40.0.0.0 255.0.0.0 30.0.0.20

Step 4: Exit

Step 5: Exit

Step 6: Show IP route

- For Router 0 & Router 2 we set default IP routes which means it can access any IP address with any subnet mask.

- Set the default IP route by following these commands.

Step 1: Config T

Step 2: IP route 0.0.0.0 0.0.0.0 20.0.0.20

Step 3: IP route 0.0.0.0 0.0.0.0 30.0.0.10

Step 2 is given for Router 0 & step 3 command for

PING output:

Packet Tracer PC command Line 1.0
PC7 Ping 40.0.0.1
Pinging 40.0.0.1 with 32 bytes of data:

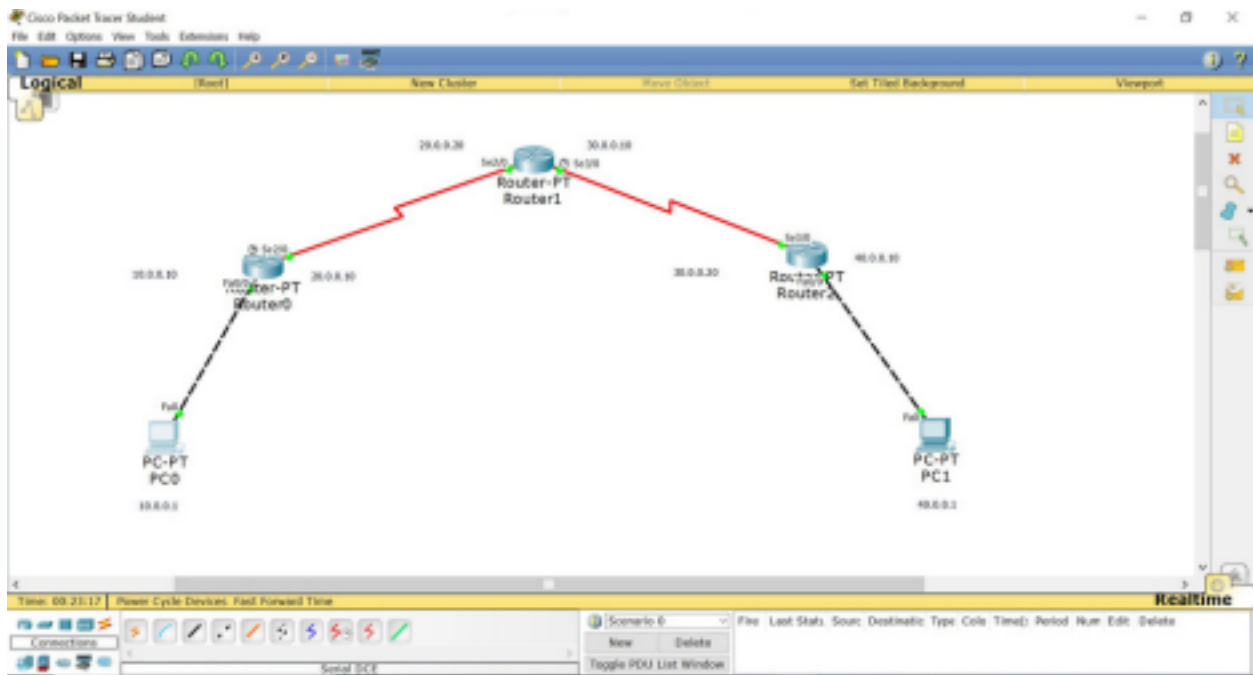
Request timed out
Reply from 40.0.0.1 : bytes=32 time=2ms TTL=125
Reply from 40.0.0.1 : bytes=32 time=16ms TTL=125
Reply from 40.0.0.1 : bytes=32 time=2ms TTL=125

Ping statistics for 40.0.0.1:
packets: Sent=4, Received=3, Lost=1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum=2ms, Maximum=16ms, Average=6ms

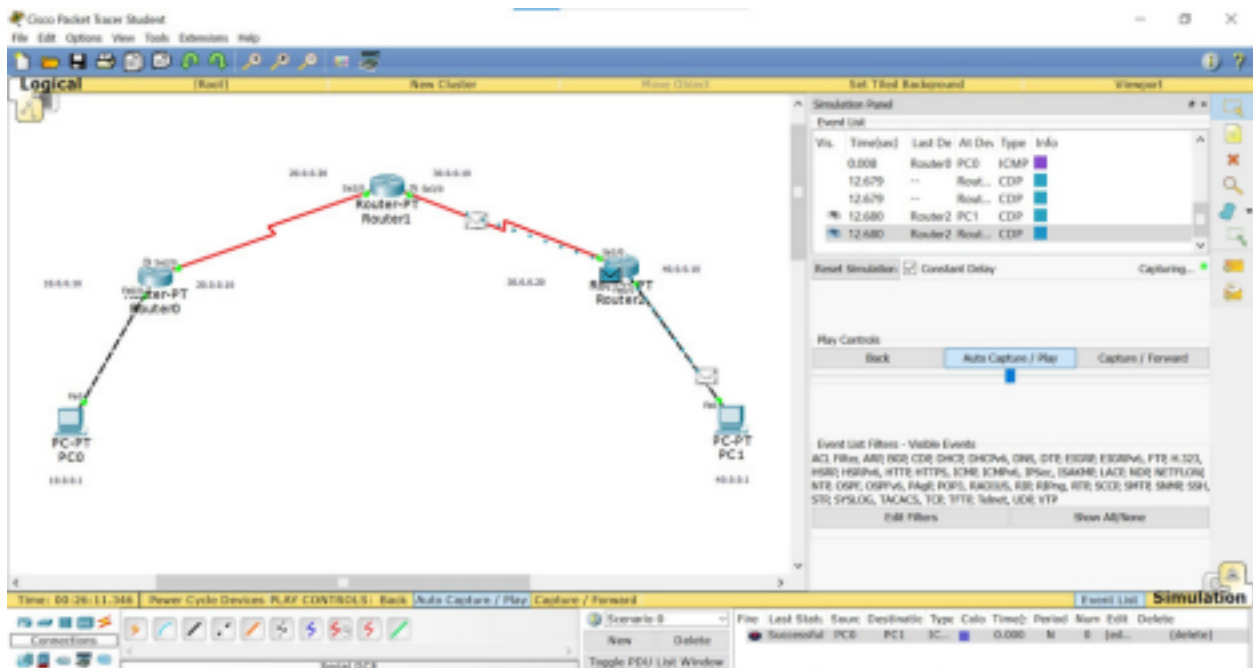
Observation

- A default route is the route which takes effect when no other route is available for an IP address destination.
- If a packet is received, the device first checks the IP destination address, if the IP destination address is not found the device checks its routing table.
- If the route destination Subnet is not listed then the packet is forwarded to the next hop toward the destination using the default route.

TOPOLOGY:



OUTPUT:



Command Prompt

```
Packet Tracer PC Command Line 1.0
PC>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=2ms TTL=125
Reply from 40.0.0.1: bytes=32 time=16ms TTL=125
Reply from 40.0.0.1: bytes=32 time=2ms 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 = 2ms, Maximum = 16ms, Average = 6ms

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=21ms TTL=125
Reply from 40.0.0.1: bytes=32 time=9ms TTL=125
Reply from 40.0.0.1: bytes=32 time=2ms TTL=125
Reply from 40.0.0.1: bytes=32 time=4ms TTL=125

Ping statistics for 40.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 21ms, Average = 9ms

PC>
```