

EXPERIMENT-3

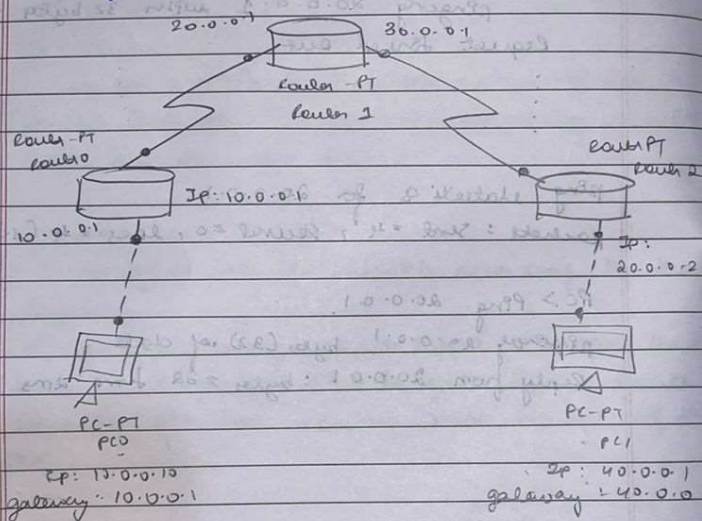
Aim: Configure default route, static route to the Router. Topology, Procedure and Observation:

Experiment 3.

1) Static and default Routing :

Aim : demonstrate static and default routing using three routers.

Topology :



\* Host PC :

PC 0 → IP : 10.0.0.10, gateway : 10.0.0.1  
PC 1 : IP : 40.0.0.10, gateway : 40.0.0.1

\* Three Router :

Router 0 : Interface Fa0/0 : 10.0.0.1  
Interface E0/0 : 20.0.0.1  
connected to PC0 and Router 1

\* Router  
• 9nle  
• 9nle

\* Router  
• 9nlefa  
• 9nlefa

Procedure  
1) Conf  
2) Con

Router  
Router  
Router  
Router  
Router  
Router

Router  
Router  
Router  
Router  
Router  
Router

Sam  
Rou

P.T.

- \* Router 1 : connects router 0 and router 2
- Interface Se 2/0 : 20.0.0.2
  - Interface Se 3/0 : 30.0.0.1

- \* Router 2 : connected to PC1 and Router 1
- Interface Se 3/0 : 30.0.0.2
  - Interface Se 0/0 : 40.0.0.1

### Procedure:

1) configure the PC & PC1

2) configure Router interface.

Router > enable

Router H Config 1.

Router (config): interface fastethernet 0/0

Router (config): ip address 10.0.0.1 255.0.0.0

Router (config) no shut

Router > exit

Router H Config 2

Router H interface serial Se 2/0

Router (config): ip address 20.0.0.1 255.0.0.0

Router (config): (ip address) no shut

Router > exit

Same configuration for  
Router 2 & Router 1.

PT:0



Router 0. > show ip route

C 10.0.0.0/8 is directly connected to  
fastethernet 0/0

C 20.0.0.0/8 is directly connected to  
Serial 2/0

S 0.0.0.0/0 [1/0] via 20.0.0.0

Router 2. > show ip route

C 30.0.0.0/8 is directly connected serial 3/0

C 40.0.0.0/8 is directly connected fastethernet 0/0

S 0.0.0.0/0 [1/0] via 30.0.0.2

Router 1 > show ip route

S 10.0.0.0/8 [1/0] via 20.0.0.1

C 20.0.0.0/8 is directly connected serial 2/0

C 30.0.0.0/8 is directly connected serial 3/0

S 40.0.0.0/8 [1/0] via 30.0.0.2

#### Observation:

if configuration and cabling are correct,  
you will receive successful ping replies  
b/w the two PC's

3/1/25

Exper

a) Confe

Term

out

Topic



Server  
Server  
def gate

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

13.

14.

15.

16.

17.

18.

19.

20.

## Screenshots:



PC0

Physical Config Desktop Custom Interface

**Command Prompt**

```
Pinging 40.0.0.10 with 32 bytes of data:

Request timed out.
Reply from 40.0.0.10: bytes=32 time=7ms TTL=125
Reply from 40.0.0.10: bytes=32 time=6ms TTL=125
Reply from 40.0.0.10: bytes=32 time=5ms TTL=125

Ping statistics for 40.0.0.10:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 5ms, Maximum = 7ms, Average = 6ms

PC>ping 40.0.0.10

Pinging 40.0.0.10 with 32 bytes of data:

Reply from 40.0.0.10: bytes=32 time=8ms TTL=125
Reply from 40.0.0.10: bytes=32 time=7ms TTL=125
Reply from 40.0.0.10: bytes=32 time=9ms TTL=125
Reply from 40.0.0.10: bytes=32 time=6ms TTL=125

Ping statistics for 40.0.0.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 6ms, Maximum = 9ms, Average = 7ms

PC>
```