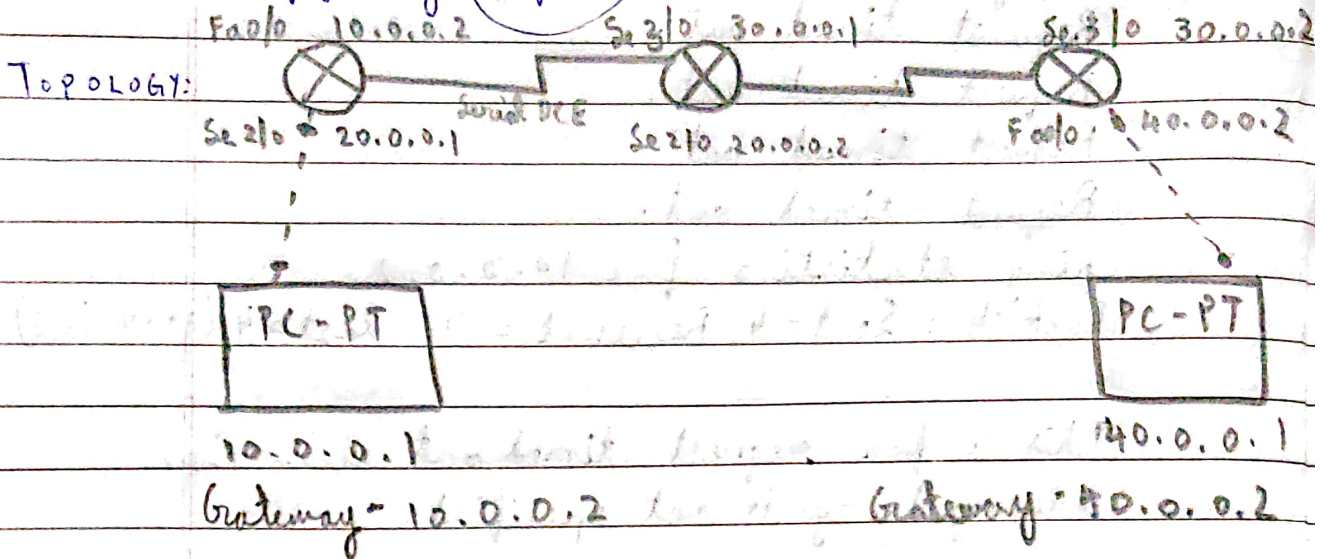


24/11/22

8

LAB - 3

AIM: Configuring <sup>static</sup> ~~default~~ route to the Router.



PROCEDURE: A topology was created with 3 generic routers and 2 generic end devices.

- \* For the router connection we used Serial DCE and for end devices to router, automatic connection.
- \* For Serial DCE we used Serial 2/0 & Serial 3/0
- \* For automatic connection, we used FastEthernet.
- \* Then we configure with different IP address.

#### OBSERVATION

- \* Creating a multiple router topology by connecting routers to serial ports & PC-router through fastethernet.
- \* Assigning gateway to routers as we did in the previous lab.
- \* Pinging PC1 from PC0 at this state gives DESTINATION HOST UNREACHABLE.
- \* Viewing the routers ip routes using SHOW IP ROUTE.

- \* Adding static routes to the routers using  
`ip addressroute <dest. network> <subnet mask>  
 <next hop>` in privileged (enable) configure  
 (configure terminal) mode.
- \* Pinging PC1 from PC0 & PC0 from PC1  
 now works as expected.
- \* As we did show ip route we'll see that  
 10.0.0.0 & 20.0.0.0 is directly connected  
 whereas the 30.0.0.0 & 40.0.0.0 were  
 not connected successfully.
- \* So to avoid unreachable we use the above  
 format to send successfully.

RESULT: In CLI, for 1st router,

# show ip route

C 10.0.0.0/8 is directly connected, FastEthernet0/0

C 20.0.0.0/8 is directly connected, Serial2/0

\* After using

# ip ~~address~~<sup>route</sup> 30.0.0.0 255.0.0.0 20.0.0.2  
 exit

# ip ~~address~~<sup>route</sup> 40.0.0.0 255.0.0.0 20.0.0.2  
 exit

o/p \* C 10.0.0.0/8 is directly connected, FastEthernet0/0  
 C 20.0.0.0/8 is directly connected, Serial2/0  
 S 30.0.0.0/8 [1/0] via 20.0.0.2  
 S 40.0.0.0/8 [1/0] via 20.0.0.2

Before PC > ping 40.0.0.1

Gateway Pinging 40.0.0.1 with 32 bytes of data:

Request timed out.

Request timed out.

Request timed out.

Packet sent = 4, Received = 0 (100% loss)



After  
Gateway Ping 40.0.0.1  
Reply from 140.0.0.2: Destination host unreachable  
Reply from 140.0.0.2: Destination host unreachable  
Packets: Sent = 4, Received = 0 (100% Loss)

→ After ip route config to all 3 routers.

Ping 40.0.0.1  
Reply from 40.0.0.1: bytes = 32, time = 20 ms, TTL = 125  
Reply from 40.0.0.1: bytes = 32, time = 30 ms, TTL = 125  
Ping statistics for 40.0.0.1:  
Packets: Sent = 4, Received = 3 (25% loss)

Wecding  
1/12/2022