Experiment

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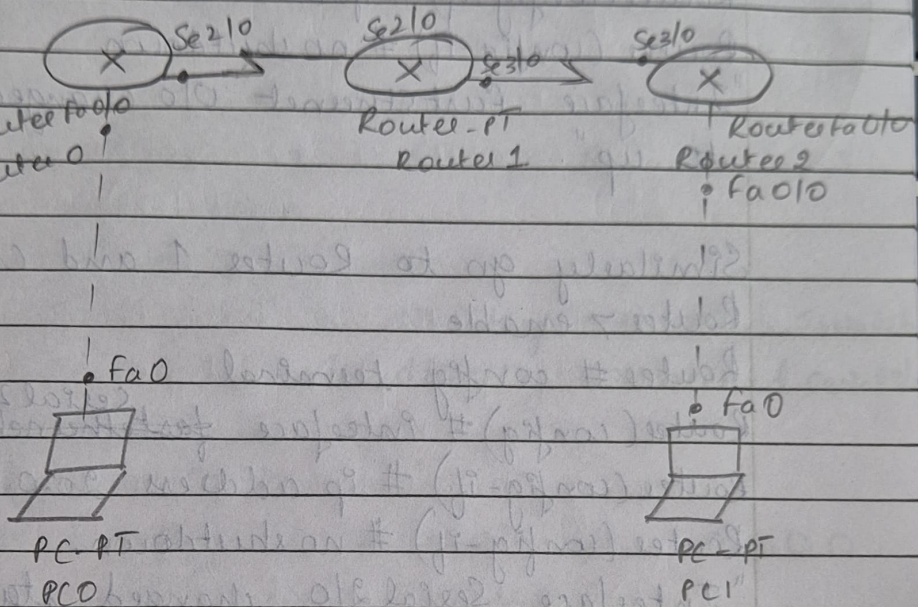
Aim : Configure default route and static route

Topology :



Procedure :

I. Select a generic router R0

II. Connect an end device PC0 to router R0 through parallel connection fast ethernet 0/0

III. Configure PC0 with ip address 10.0.0.10 and gateway 10.0.0.1

IV. ~~Conf~~ Select another router R1

V. There is a serial connection from router R0 to R1 ie Se2/0

VI. Select another router R2 and there is a serial connection from router R1 to R2 ie Se 3/0

VII. ~~From~~ Router ~~0~~ R2 ~~there~~ connect a PC1 through parallel connection fa0/0

VIII. Configure PC1 with ip address 40.0.0.10 and gateway 40.0.0.1

In Router 0 we also need to set up for serial 2/0.

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Now go to Router 0 and CLI and type
Router > enable
Router # config terminal
Router (config) # Interface fastethernet 0/0
Router (config-if) # ip address 10.0.0.1 255.0.0.0
Router (config-if) # no shutdown
"Interface fastethernet 0/0 changed state to up".

Similarly go to Router 1 and CLI and type
Router > enable
Router # config terminal
Router (config) # Interface ~~fastethernet~~ serial 2/0
Router (config-if) # ip address 20.0.0.2 255.0.0.0
Router (config-if) # no shutdown.
"Interface Serial 2/0, changed state to up

So now we have to do for serial 3/0
Router > enable
Router (config) # Interface serial 3/0
Router (config-if) # ip address 30.0.0.1
255.0.0.0
Router (config-if) # no shutdown
"Interface Serial 3/0, changed state to up".

Now go to Router 2 and CLI and type
Router > enable
Router # config terminal
Router (config) # Interface fastethernet 0/0
Router (config-if) # ip address 40.0.0.1
255.0.0.0
Router (config-if) # no shutdown
"Interface FastEthernet 0/0 changed state to up"

for PC1

So now we will do for serial 3/0
Router (config) # interface serial 3/0
Router (config-if) # ip address 30.0.0.2
255.0.0.0
Router (config-if) # no shutdown

Now we will set static Route.
So for that we will go to Router 1 cli and type.
Router # show ip route
C 20.0.0.0/8 is directly connected, Serial2/0
C 30.0.0.0/8 is directly connected serial3/0
So now again type
Router # config terminal
Router (config) ip ~~address~~ 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
Router # show ip route
S 10.0.0.0/8 via 20.0.0.1
C 20.0.0.0/8 is directly connected, Serial2/0
C 30.0.0.0/8 is directly connected, Serial3/0
S 40.0.0.0/8 via 30.0.0.1

No we have to set default Route
So we will go to Routes 0
Router (config) # ip route 0.0.0.0 0.0.0.0
20.0.0.2

Then Router 2
Router (config) # ip route 0.0.0.0 0.0.0.0
30.0.0.1

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Observation
So now we will go to PC0 and in the command prompt type
PC> ping 40.0.0.10
Pinging 40.0.0.10 with 32 bytes of data

Ping statistics for 40.0.0.10
Packets : Sent = 4, Received = 4, Lost = 0
(0% loss)

No in PC1 we have to go to Command prompt and type
PC> ping 10.0.0.10
Pinging 10.0.0.10 with 32 bytes

Packets: Sent = 4, Received = 4, Lost = 0

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