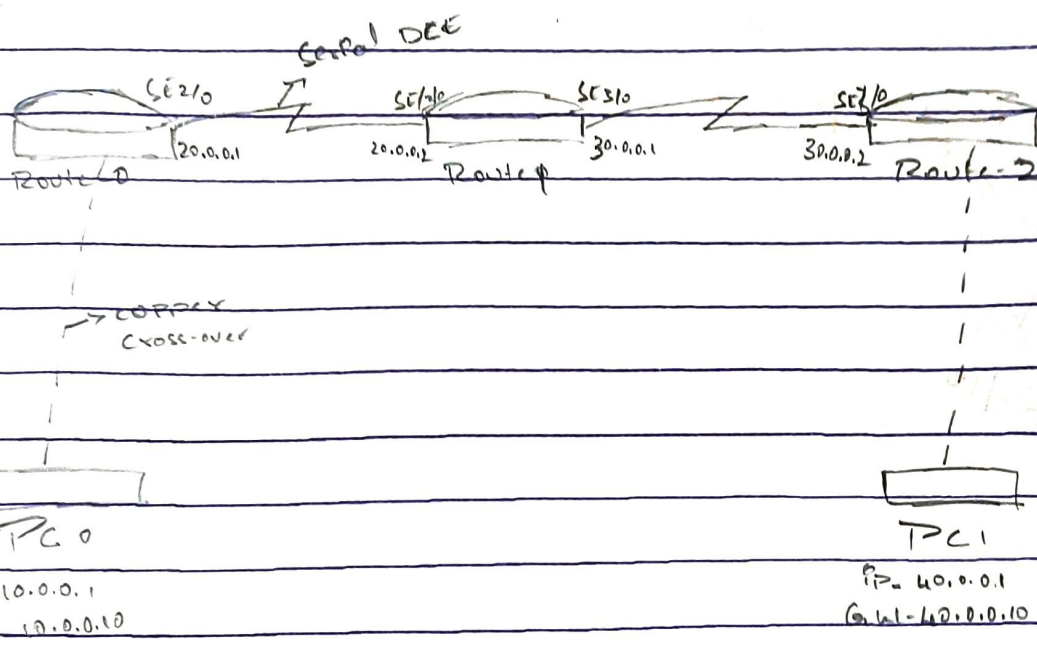


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Experiment-1

Objective : config the static & default routing using three routers & 2 PC's.

Topology



Procedure

Step 1: Place 3 Routers & 2 PC. Connect the PC to Router with Copper cross-over cable & Router to Router with Serial DCE

Step 2: Select PC0 config -> FastEthernet 0/0 set IP address as 10.0.0.1 and config -> setting set gateway as 10.0.0.10

Step 3: select PC1 config -> FastEthernet 0/0 set IP address as 40.0.0.1 and config -> setting set gateway as 40.0.0.10

Step 4: select Router 0 & go to CLI
execute the following commands

> enable

config terminal

ip address interface FastEthernet 0/0

ip address 10.0.0.1 255.0.0.0

no shut

exit

interface serial 2/0

~~connecting~~ # ip address 20.0.0.1 255.0.0.0

no shut

Router 2 -> CLI

> enable

config terminal

interface FastEthernet 0/0

ip address 40.0.0.1 255.0.0.0

no shut

exit

interface serial 3/0

ip address 30.0.0.2 255.0.0.0

no shut

connection between PC1, R0 and PC2 R2 will
turn green

Step 5 Router1 → CLI

> enable

config terminal

interface Serial 2/0

ip address 20.0.0.2 255.0.0.0

no shut

exit

interface Serial 3/0

ip address 30.0.0.1 255.0.0.0

no shut

exit

connect blue R0, R1 & ~~R2~~, R2 will ~~turn~~ turn green

Step 6 Router → CLI

config terminal

ip route 0.0.0.0 255.0.0.0 20.0.0.1

ip route 0.0.0.0 255.0.0.0 30.0.0.2

exit

Route 0 → CLI

config terminal

ip route 0.0.0.0 0.0.0.0 20.0.0.2

Route 2 → CLI

> enable

config terminal

ip route 0.0.0.0 0.0.0.0 30.0.0.1

Step 6: - Show IP route in the router, Ping 40.0.0.10
from 10.0.0.1 & vice versa

Observation

i) All the connections are successful

ii) PC1 → Desktop → command prompt

Ping 40.0.0.10 is successful

Ping Statistics

Sent=4, Received=4, lost 0 (0% Loss)

iii] IP route in R1

S 10.0.0.0 via 20.0.0.1

C 20.0.0.0 directly

C 30.0.0.0 directly

S 40.0.0.0 via 30.0.0.2

iv] Ping 40.0.0.1

Reply from 40.0.0.10: bytes 32 time 0ms TTL=125

Reply from 40.0.0.1: bytes 32 time 7ms TTL=125

Reply from 40.0.0.1: bytes 32 time 8ms TTL=125

Reply from 40.0.0.1: bytes 32 time 7ms TTL=125

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