WEEK 3

Configure default route, static route to the Router.

OBSERVATION:

Lab - 3

Aim: Configure default route, state route to router

Topology:

20.0.0.20 30.0.0.10
Se3I0   Se8I0
Router : PT
Router - I

Se 2/0   Se 3I0
20.0.0.10   40.0.0.10
100.0.10   30.0.0.30
Router PT   Router 01
Router : 0   Router 2
: Fa 0   Fa/0
PC-PCT   PC-PT
PCO   40-0-0-1
10.0.0-1

Procedure:

1. Connect 3 routers & 2 PC's using copper cross over cable for e to router & serial DCE cable to connect router to router.

2. Set the IP address of both PC's & respective gateway.

3. For all 3 routers set the respective IP address in CLI mode using following commands.

   (i) Enable
   (ii) Config t
   (iii) Interface fastethernet 0/0
   (iv) IP address 10.0.0.10 255.0.0.0
   (v) No shut
   (vi) Interface Se 2/0
   (vii) Ipaddress 20.0.0.10 255.0.0.0
   (viii) Noshut
   (ix) End

Right side (partially visible):

4. Repeat t...
5. For Router...
   (i) config...
   (ii) ip sho...
   (iii) iperate...
   (iv) exit
   (v) exit
   (vi) show
   rule set
   access an
   Default
   (i) confi
   (ii) enab
   (iii) ip

   Go to c

   Payou
   PC >
   Ping
   Reg
   Refl

   19/5/202...

   Ping st
   P
   A

4. Repeat the Commands for the other routers
5. For Router 1 set the route of its adjacent router statically
   (i) config t
   (ii) ip route 10.0.0.0 255.0.0.0 20.0.0.10
   (iii) ip route 40.0.0.0 255.0.0.0 30.0.0.20
   (iv) exit
   (v) exit
   (vi) show ip route

we set default ip route to router 0 & node 2 which tells it can access any ip address with any subnet mask address

Default ip route is set by following command.
   (i) config t
   (ii) enable ip route 0.0.0.0 0.0.0.0 20.0.0.20 (R-0)
   (iii) ip route 0.0.0.0 0.0.0.0 30.0.0.10 (R-1)

Go to Command Request on PC give ping to send message

Ping output

PC > Ping 40.0.0.1
Pinging 40.0.0.4 with 32 bytes of data.

Request timed out.
Reply from 40.0.0.1 : bytes =32 time = 2ms TTL = 125
               : bytes =32 time = 9ms TTL = 125
      "   "   : bytes = 32 time = 2ms TTL = 125

Ping state for 40.00.1
   packets sent = 4, Received = 3 (lost = 1)
   Approximate round loop time in ms
       min = 2 ms   Max 9ms   Avg = 4ms

Observations

A default route is given to routers which takes over when no other route is available for an ip address destination, packet so it travel, default first checks ip address, if it is not available it checks its routing table packet is forwarded to next hop towards destination.
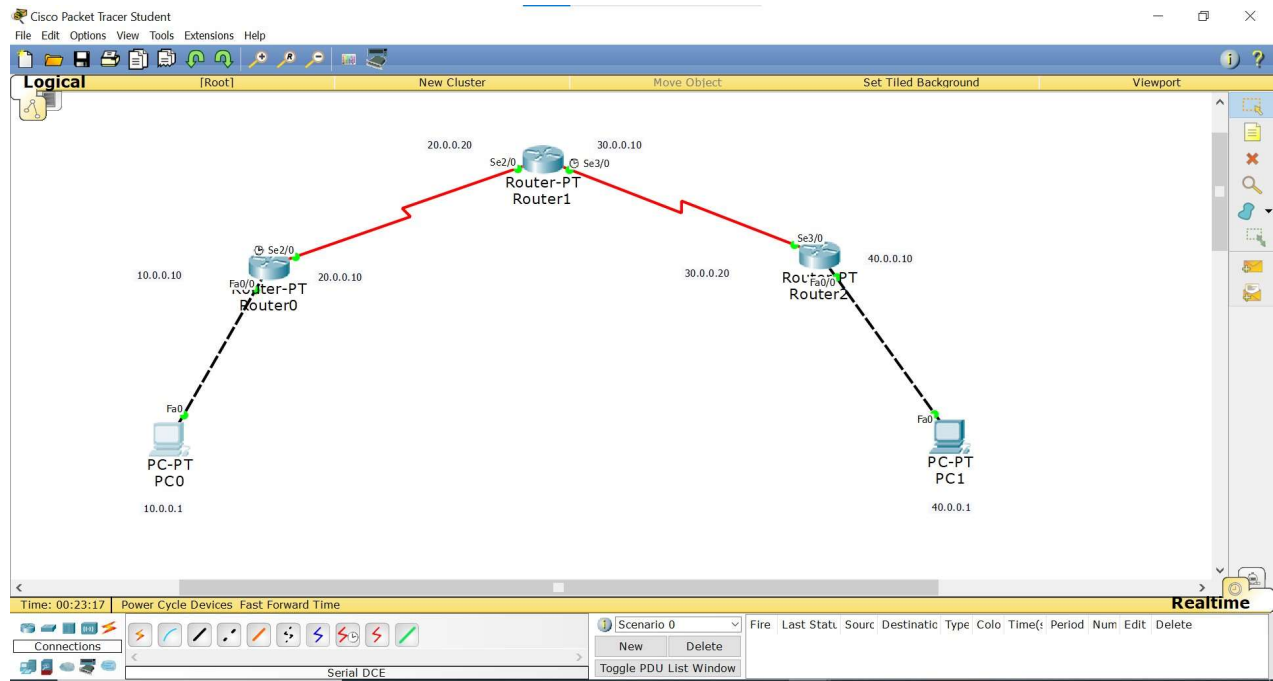This process repeats till it reach destination.

Procedure:
→ Connect
   through
→ Go to se
→ Set ip
   fast ethe
→ click
   Select D
   get PH
→ Repeat
→ Go to

Output
PC> P
   ping
   Reply
   "
   " -
   "

TOPOLOGY:

OUTPUT:

PC0

Physical | Config | **Desktop** | Custom Interface
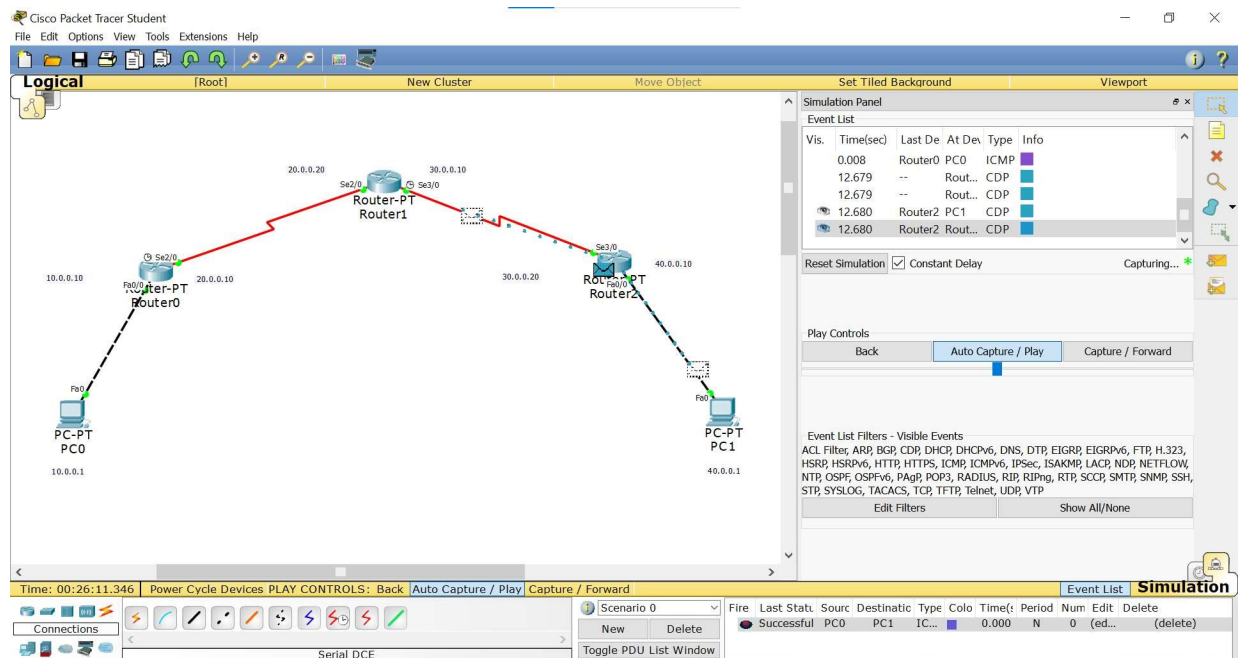
Command Prompt

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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>
```