WEEK 6

Configure RIP routing Protocol in Routers.

OBSERVATION:

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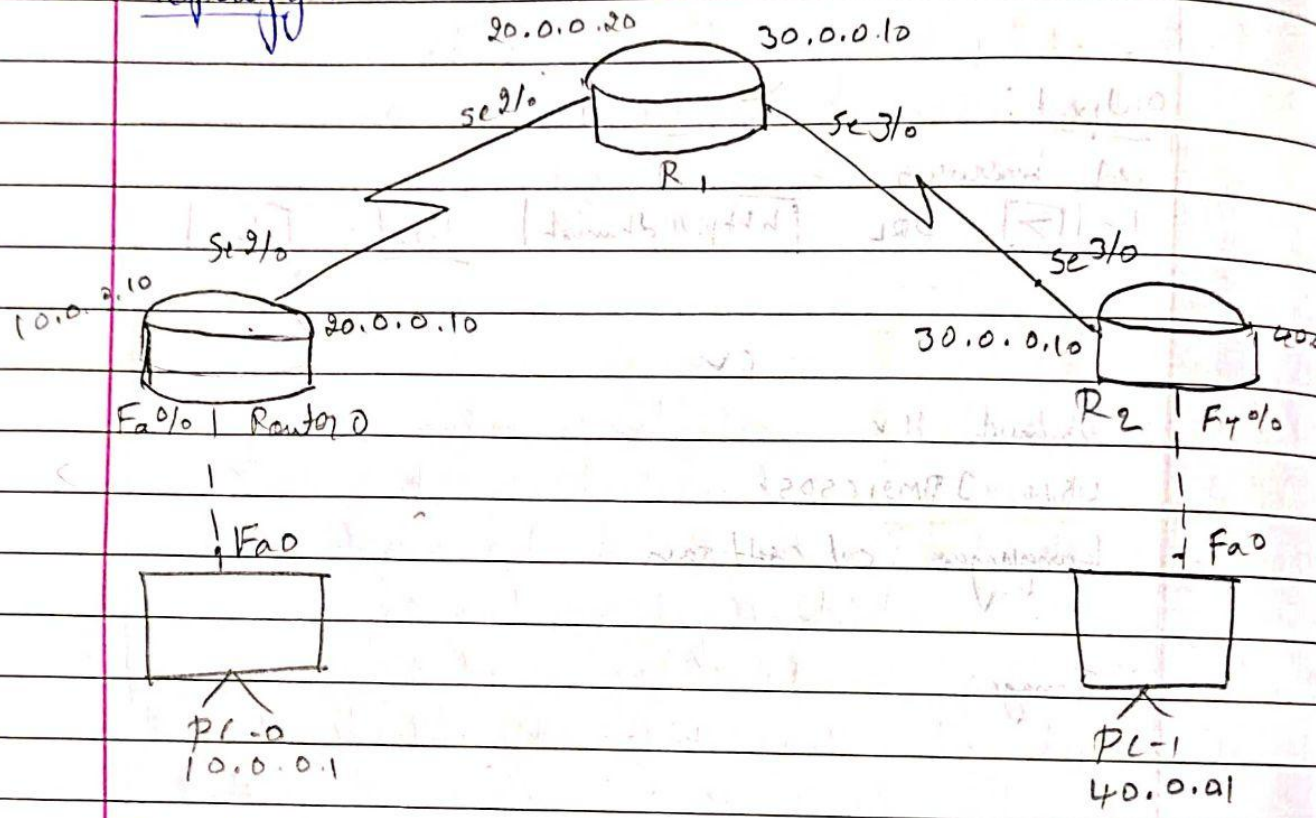
LAB-6

AIM:
Configure RIP routing protocol in Routers.

Topology:



Procedure

- Create a Network using 3 routers and 2 PC's. Connect routers using V serial DCE cable and pc to router using copper-crossover cable.
- Set the IP address and gateway no for both pc's as 10.0.0.1 - IP 10.0.0.10 - gateway - PC0
  40.0.0.1 - IP 40.0.0.10 - gateway - PC1 respectively
- Up to Router → CLI mode and execute the Commands

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Step 5 - IP address 10.0.0.10 255.0.0.0
Step 6 - No shut
Step 7 - Exit
Step 8 - interface se 2/0
Step 9 - Ip address 20.0.0.10 255.0.0.0
Step 10 - Encapsulation ppp //
Step 11 - clock rate 64000 //
Step 12 - No shut

- Here for Routers with Fast Ethernet execute only till Step 7 and type No shut.
- Only for Router to Router connection execute all steps, also execute the step 11 only for the router connection which has a clock syn bol at start.
Repeat these steps for all routers.
- Again go to Router 0 → CLI mode and type these steps
  Step 1 : config T
  Step 2 : router rip
  Step 3 : Network 10.0.0.0
  Step 4 : Network 20.0.0.0
  Step 5 : Exit
- Repeat these steps for all routers.
- At last now go to each router and type show Ip route. Here the Ip addresses associated with that router will be labelled as C and other Ip addresses are labelled as R.
- Lastly go to PC 0 and ping a message to PC 1 using ping destination IP address command.

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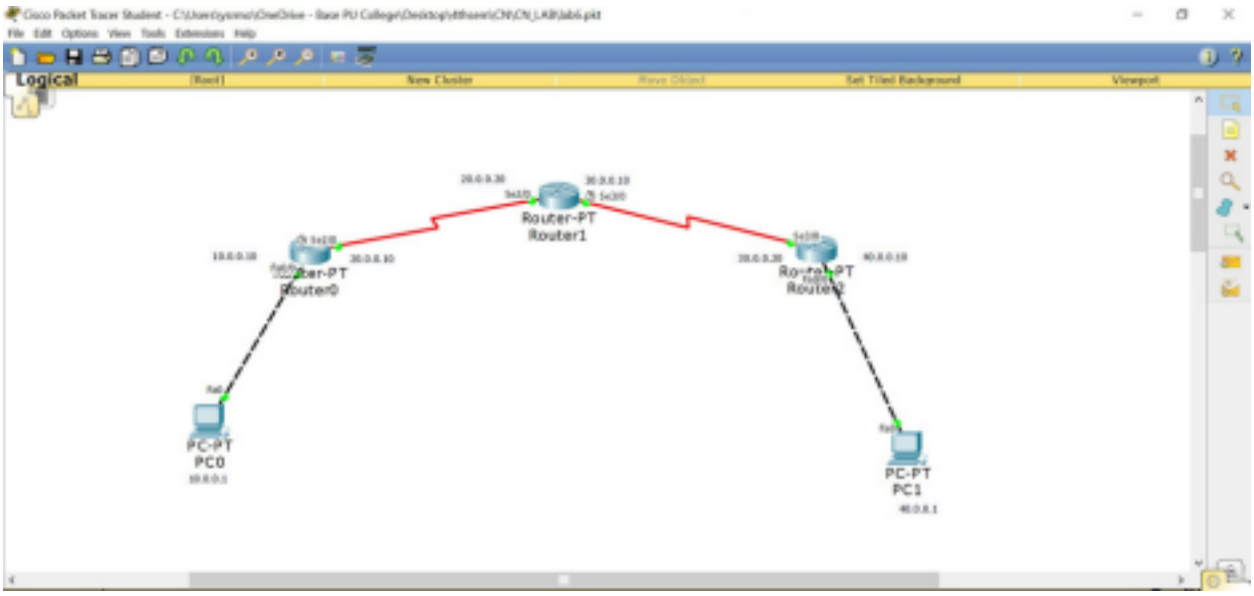
Request timed out.
Reply from 40.0.0.1 : bytes=32 times : 8ms TTL=125
Reply from 40.0.0.1 : bytes=32 times : 5ms TTL=125
Reply from 40.0.0.1 : bytes=32 times : 10ms TTL=125

ping statistics for 40.0.0.1:
Packets sent = 4, Recieved = 3, Lost = 1 (25% loss)
Approximate round trip times in milli seconds:
Minimum = 5ms, Maximum = 10ms, Average = 7ms.

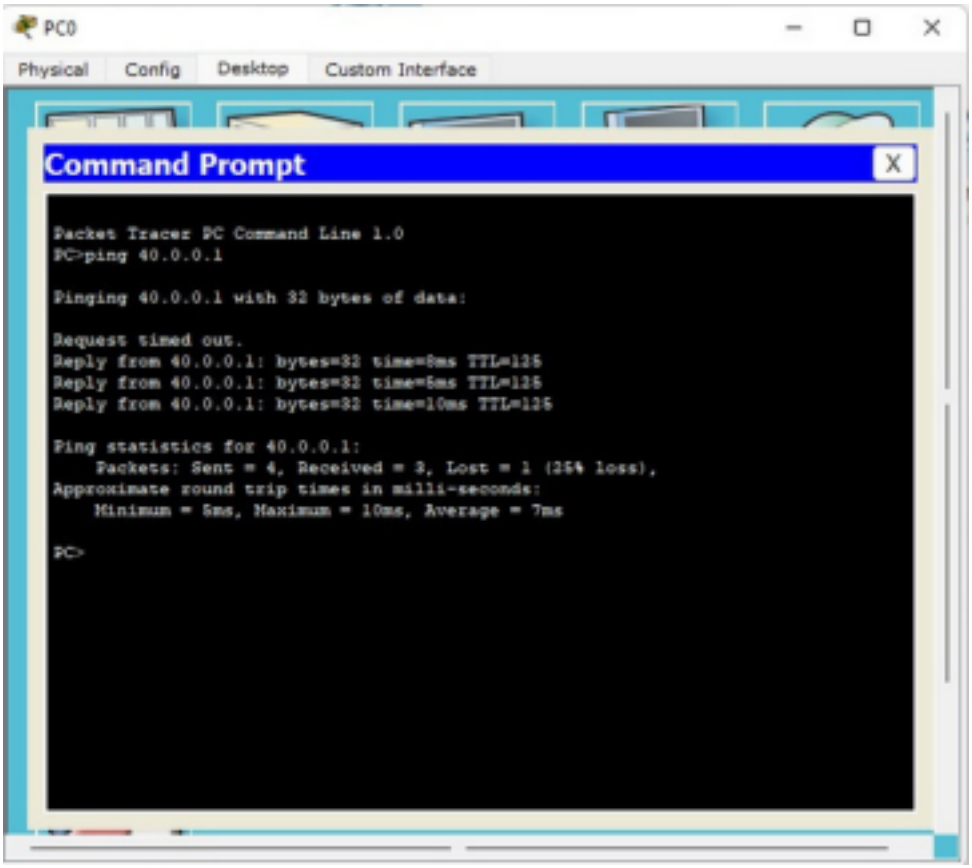
Observation:

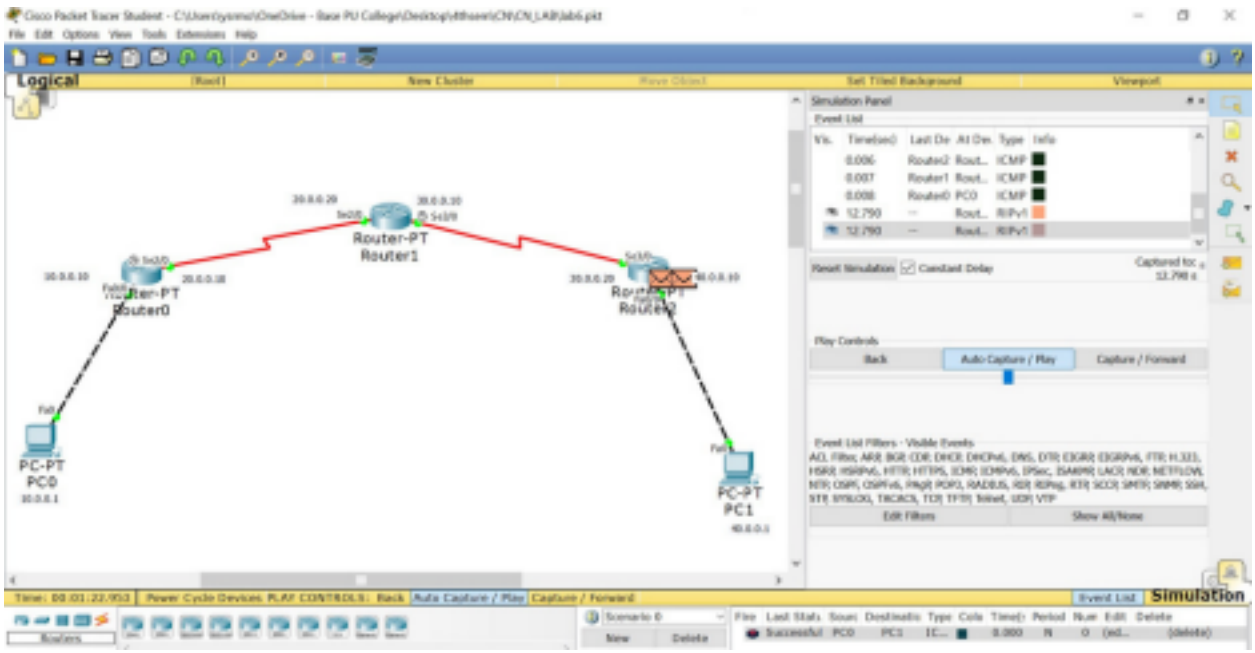
- Routing information protocol (rip) is a dynamic rou protocol that uses hop count as a routing metric t find the best path between source and destination. It a distance-vector routing protocol.
- Hop count is the no of routers coming in between sour and destination. The path with least hop count is selected.
- Updates of the networks are exchanged periodically.
- Updates of routing information are always broadcast
- Full routing tables are sent in update.
- Routers always trust routing information received from neighbour routers.

TOPOLOGY:



OUTPUT:




Logical
Router-PT
Router1
Router-PT
Router0
Router-PT
Router2
PC-PT
PC0
PC-PT
PC1
Simulation Panel
Event List
Play Controls
Back
Auto Capture / Play
Capture / Forward
Simulation