WEEK 6

Configure RIP routing Protocol in Routers.

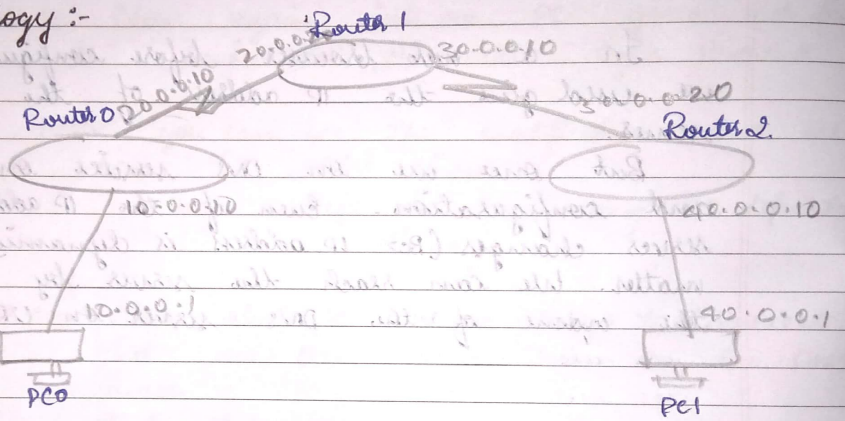
OBSERVATION:

LAB-6

Configure RIP routing Protocol in routers

Aim :- Configuration of RIP routing Protocol.

Topology :-



Procedure :-

Step 1 :- Create a network topology as shown above.

Step 2 :- And configure PC0 and PC1 by setting IP address and gateway for both.

PC0 → IP 10.0.0.1
Gateway 10.0.0.10

PC1 → IP 40.0.0.1
Gateway 40.0.0.10

Step 3:- Configure the routers.

Router 0.

enable
config t.
Router (config)# int Fa0/0.
Router (config-if)# ip address 10.0.0.10 255.0.0.0.
Router (config-if)# no shut.
exit.

int se2/0.
ip address 20.0.0.10 255.0.0.0.
encapsulation PPP.
clockrate 64000
no shut
exit.

NOTE :- The encapsulation ppp should be given to all the routers and 'clockrate 64000' command should be only given to the clock symboled ports of the routers (i.e. open circle).

→ For making the routers to know about the other devices, in the previous 2 experiments we used static and the others with dynamic address but here we use routing protocol algorithm that itself makes the router to know other devices.

→ router rip
→ network 20.0.0.0 } router 2
network 30.0.0.0.

router rip
network 30.0.0.0 } router 3
network 40.0.0.0

router rip
network 10.0.0.0 } router 1.
network 20.0.0.0

Ping output:-

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 : 0.ms TTL: 128
Reply from 40.0.0.1 bytes = 32 time : 0ms TTL: 128
Reply from 40.0.0.1 bytes = 32 time : 0ms TTL: 128
Reply from 40.0.0.1 bytes = 32 time : 0ms TTL: 128.

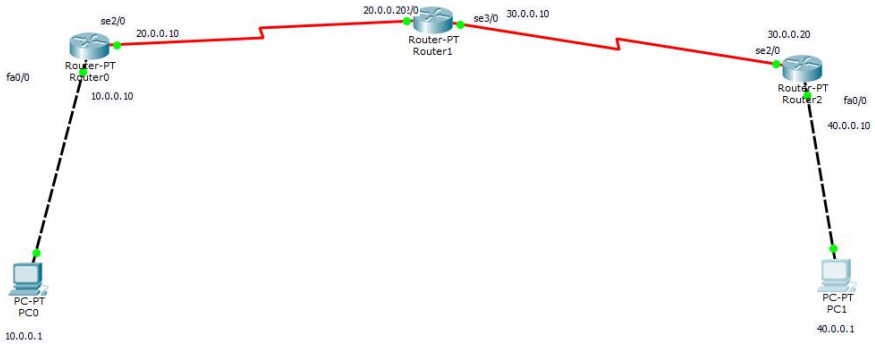
ping statistics from 40.0.0.1
packets sent = 4 Received 4 lost = 0 (0% loss)
Approximate round trip times in ms
minimum = 0ms maximum = 0ms Average = 0ms

Observation:-

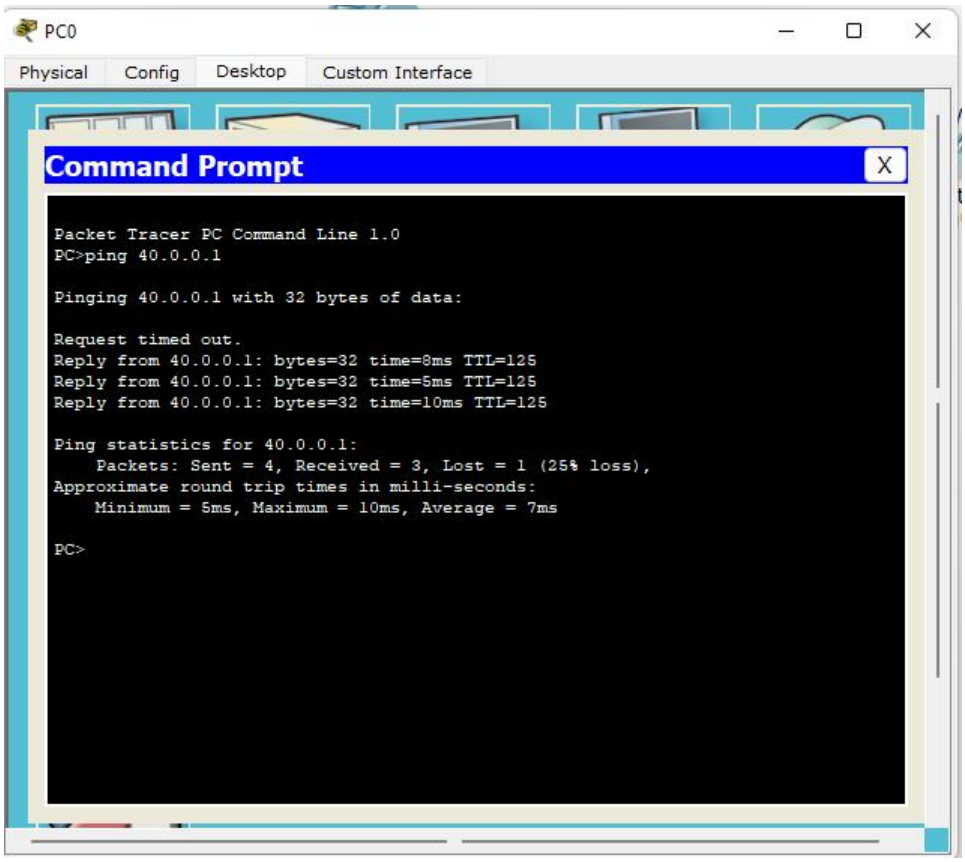
RIP is the routing information protocol it a diffusing vector protocol that uses hop count as its primary metric. RIP defines how traffic routers should share information when moving traffic among an interconnected group of local area networks.

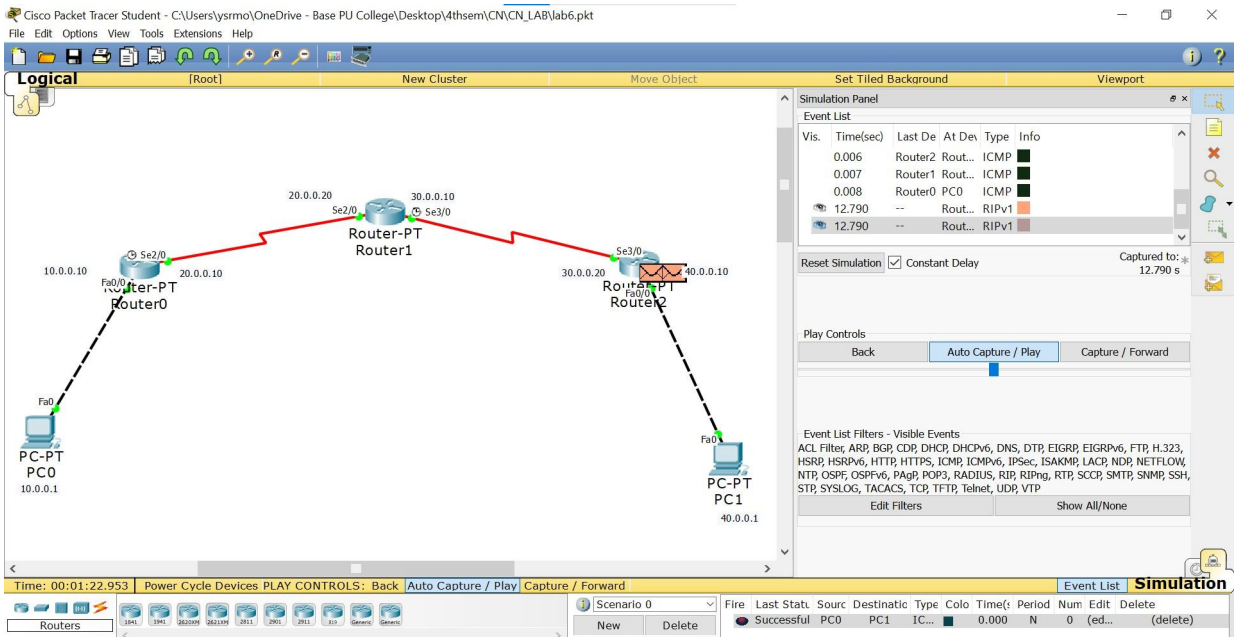
→ The RIP protocol here, used to connect the routers to one other and PC's using RIP protocol and message is pinged successfully

TOPOLOGY:



OUTPUT:




Cisco Packet Tracer Student - C:\Users\ysrmo\OneDrive - Base PU College\Desktop\4thsem\CN\CN_LAB\lab6.pkt
File Edit Options View Tools Extensions Help
Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
20.0.0.20
30.0.0.10
Se2/0
Se3/0
Router-PT
Router1
Se2/0
10.0.0.10
20.0.0.10
Fa0/0
Router-PT
Router0
Se3/0
30.0.0.20
40.0.0.10
Fa0/0
Router-PT
Router2
Fa0
PC-PT
PC0
10.0.0.1
Fa0
PC-PT
PC1
40.0.0.1
Simulation Panel
Event List
Vis. Time(sec) Last De At Dev Type Info
0.006 Router2 Rout... ICMP
0.007 Router1 Rout... ICMP
0.008 Router0 PC0 ICMP
12.790 -- Rout... RIPv1
12.790 -- Rout... RIPv1
Reset Simulation
Constant Delay
Captured to:
12.790 s
Play Controls
Back
Auto Capture / Play
Capture / Forward
Event List Filters - Visible Events
ACL Filter, ARP, BGP, CDP, DHCP, DHCPv6, DNS, DTP, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPSec, ISAKMP, LACP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, RADIUS, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, VTP
Edit Filters
Show All/None
Time: 00:01:22.953
Power Cycle Devices PLAY CONTROLS: Back
Auto Capture / Play
Capture / Forward
Event List
Simulation
Routers
Scenario 0
New
Delete
Fire Last Statu Sourc Destinatic Type Colo Time(s Period Num Edit Delete
Successful PC0 PC1 IC... 0.000 N 0 (ed... (delete)