

LAB 6

Configure RIP routing Protocol in Routers.

OBSERVATION:

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Lab 5 [Exp]

RIP Routing Protocol

Aim:- configuring RIP Routing Protocol in Router

Topology:-

Procedure:-

- These routers & 2 PCs are connected as shown in topology.
- configure the PC's with proper IP address & gateway address
- Similarly, configure the Routers with the proper IP address in CLI mode
- N. enable
- config T
- Interface fastEthernet 0/0

- IP address 10.0.0.1 255.0.0.0
- encapsulation PPP
- clockrate 64000
- no shut

note:- the encapsulation PPP should be given to all the routers & 'clockrate 64000' command should be only given to the clock symbolised sides of the router (i.e. open sides).

- For making the routers to know about the other devices in the previous 2 experiments we used a static & the other with dynamic address but here we use a Routing protocol algorithm that itself makes the router to know other devices.

- Router 1 ip
- network 20.0.0.0
- network 30.0.0.0 } router 2
- router 2 ip
- network 30.0.0.0 } router 3
- network 40.0.0.0 } router 3
- router 3 ip
- network 10.0.0.0 } router 1
- network 20.0.0.0 } router 1

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=10ms TTL=128

Reply from 40.0.0.1 : bytes = 32 time: 0ms TTL: 28

Reply from 40.0.0.1 : bytes = 32 time: 0ms TTL: 28

Reply from 40.0.0.1 : bytes = 32 time: 0ms TTL: 28

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

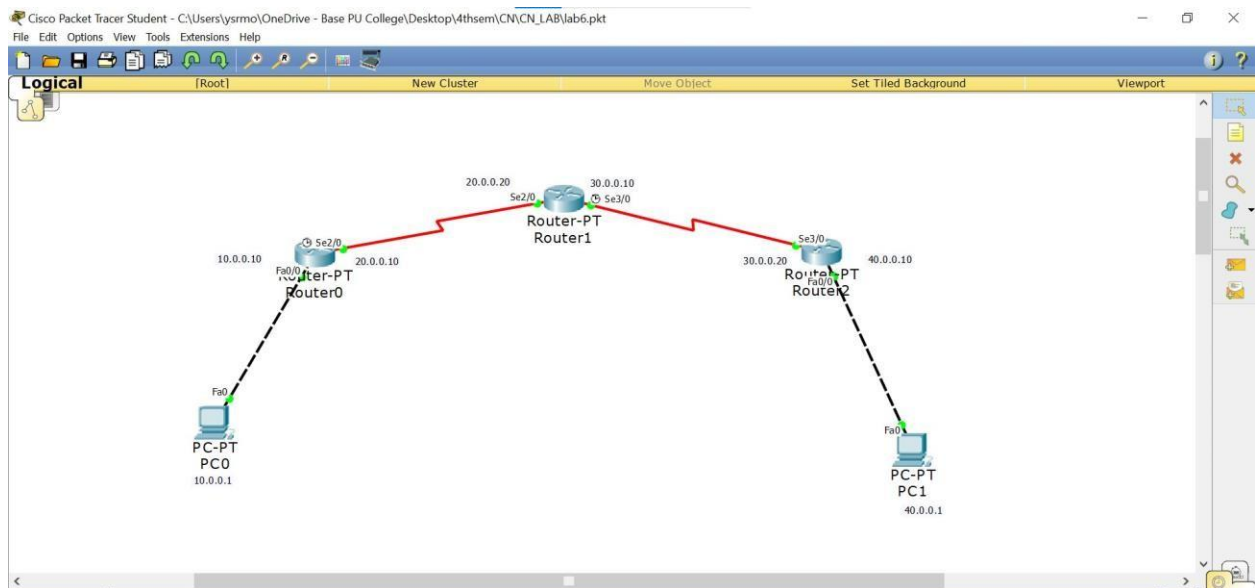
Observation:-

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

→ The RIP protocol was used to connect the routers to one other and PC is using RIP protocol and message is pinged successfully.

Pass

TOPOLOGY:



OUTPUT:

```
PC0
Physical Config Desktop Custom Interface
Command Prompt
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=8ms TTL=125
Reply from 40.0.0.1: bytes=32 time=5ms TTL=125
Reply from 40.0.0.1: bytes=32 time=10ms 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 = 5ms, Maximum = 10ms, Average = 7ms

PC>
```


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

Router0 Router1 Router2

PC-PT PC0 10.0.0.1

PC-PT PC1 40.0.0.1

Simulation Panel

Event List

Vis.	Time(sec)	Last De	At Dev	Type	Info
	0.006	Router2	Router1	ICMP	
	0.007	Router1	Router0	ICMP	
	0.008	Router0	PC0	ICMP	
	12.790	--	Router0	RIPv1	
	12.790	--	Router1	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, CD, DHCP, DNS, DTP, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, LACP, NTP, NETFLOW, NTP, OSPF, OSPFv6, PAg, 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

Scenario 0

New Delete

Event List Simulation

Fire	Last Stat	Source	Destination	Type	Color	Time(s)	Period	Num	Edit	Delete
	Successful	PC0	PC1	IC...		0.000	N	0	(ed...	(delete)