

LAB WEEK 7

To configure RIP routing protocol in Routers.

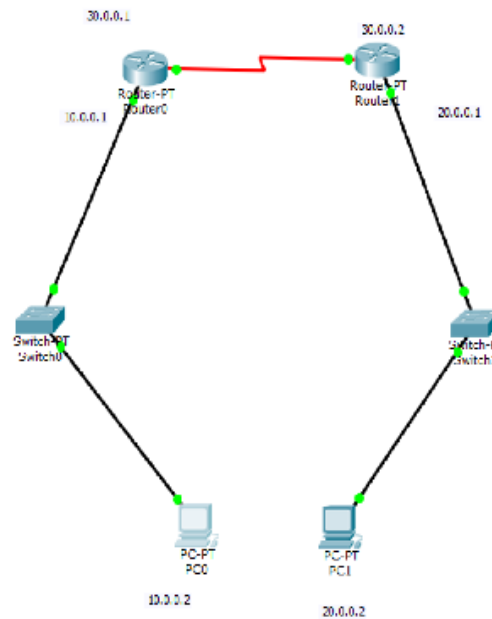


Figure 1: Topology

```
Packet Tracer PC Command Line 1.0
PC>ping 10.0.0.1

Pinging 10.0.0.1 with 32 bytes of data:

Reply from 10.0.0.1: bytes=32 time=0ms TTL=255
Reply from 10.0.0.1: bytes=32 time=0ms TTL=255
Reply from 10.0.0.1: bytes=32 time=0ms TTL=255
Reply from 10.0.0.1: bytes=32 time=0ms TTL=255

Ping statistics for 10.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>ping 30.0.0.1
Ping request could not find host 30.0.0.1. Please check the name and try again.
PC>ping 30.0.0.1

Pinging 30.0.0.1 with 32 bytes of data:

Reply from 30.0.0.1: bytes=32 time=0ms TTL=255
Reply from 30.0.0.1: bytes=32 time=0ms TTL=255
Reply from 30.0.0.1: bytes=32 time=0ms TTL=255
Reply from 30.0.0.1: bytes=32 time=0ms TTL=255

Ping statistics for 30.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>ping 30.0.0.2

Pinging 30.0.0.2 with 32 bytes of data:

Reply from 30.0.0.2: bytes=32 time=1ms TTL=254
Reply from 30.0.0.2: bytes=32 time=1ms TTL=254
Reply from 30.0.0.2: bytes=32 time=0ms TTL=254
Reply from 30.0.0.2: bytes=32 time=0ms TTL=254

Ping statistics for 30.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 1ms, Average = 0ms

PC>ping 20.0.0.1

Pinging 20.0.0.1 with 32 bytes of data:

Reply from 20.0.0.1: bytes=32 time=1ms TTL=254
Reply from 20.0.0.1: bytes=32 time=0ms TTL=254
Reply from 20.0.0.1: bytes=32 time=0ms TTL=254
Reply from 20.0.0.1: bytes=32 time=0ms TTL=254

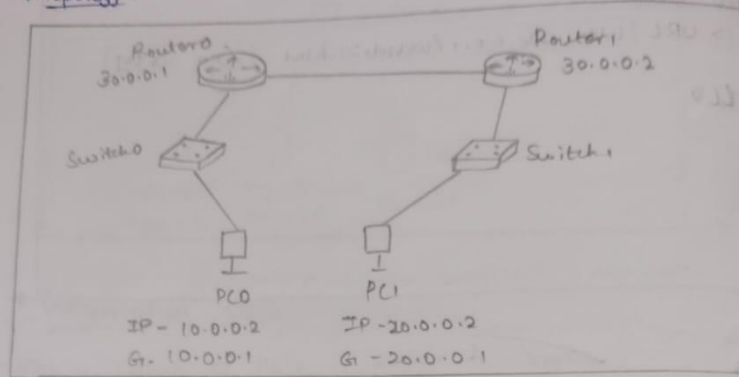
Ping statistics for 20.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 3ms, Average = 2ms
```

Figure 2: Output

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To configure RIP routing Protocol in Routers

* Topology :



* Configuration Steps:

Step 1: Select 2 PCs, 2 switches and 2 Routers and connect all the end devices.

Step 2: Set IP address and Gateway for PC & Router

IP: PC0 - 10.0.0.2, PC1 - 20.0.0.2

Router0 - 30.0.0.1

Router1 - 30.0.0.2

GI: PC0 - 10.0.0.1, PC1 - 20.0.0.1

Step 3: Select Router0, Select RIP & add networks as 10.0.0.0 & 20.0.0.0, Follow same for Router1.

Step 4: Go to settings, In NVRAM save the changes

Step 5: Ping from PC-0 to PC-1

Figure 3: Observation Book 1

* Observation :

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PC > ping 20.0.0.2

pinging 20.0.0.2 with 32 bytes of data:

Reply from 20.0.0.2 with 32 bytes of data:

Reply from 20.0.0.2: bytes=32 time=1ms TTL=128

u _____ u _____ u _____
u _____ u _____ u _____
u _____ u _____ u _____

ping statistics for 20.0.0.2:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 18ms, Average = 6ms

PC > ping 30.0.0.2

pinging ~~30.0.0.2~~ with 32 bytes of data:

Reply from 30.0.0.2: bytes=32, time=1ms TTL=128

u _____ u _____ u _____
u _____ u _____ u _____
u _____ u _____ u _____

ping statistics for 30.0.0.2:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss)

Approximate round trip times in milli-seconds:

~~Minimum = 1ms~~, Maximum = 5ms, Average = 3ms

PC > ping 30.0.0.1

pinging 30.0.0.1 with 32 bytes of data.

Reply from 30.0.0.1: bytes=32, time=0ms, TTL=255

" _____ u _____ u _____ u
" _____ u _____ u _____ u
" _____ u _____ u _____ u

ping statistics for 30.0.0.1:

Packets: sent=4, Received=4, Lost=0 (0% loss)

Approximate round trip times in milli-seconds:

Minimum=0ms, Maximum=2ms, Average=0ms

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Figure 5: Observation Book 3

To configure RIP routing protocol in Routers using 3 routers

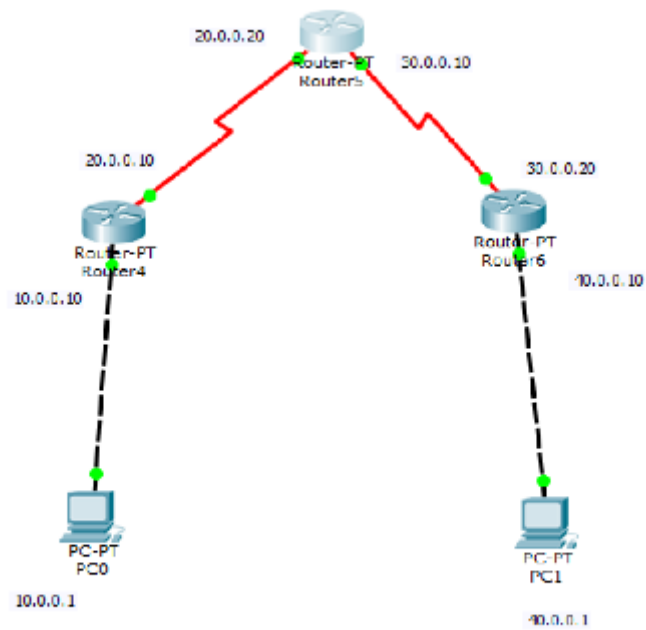


Figure 6: Topology

```
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=4ms TTL=128
Reply from 40.0.0.1: bytes=32 time=6ms TTL=128
Reply from 40.0.0.1: bytes=32 time=6ms TTL=128
Reply from 40.0.0.1: bytes=32 time=7ms TTL=128

Ping statistics for 40.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 4ms, Maximum = 7ms, Average = 5ms
```

Figure 7: Output