EXPERIMENT-5
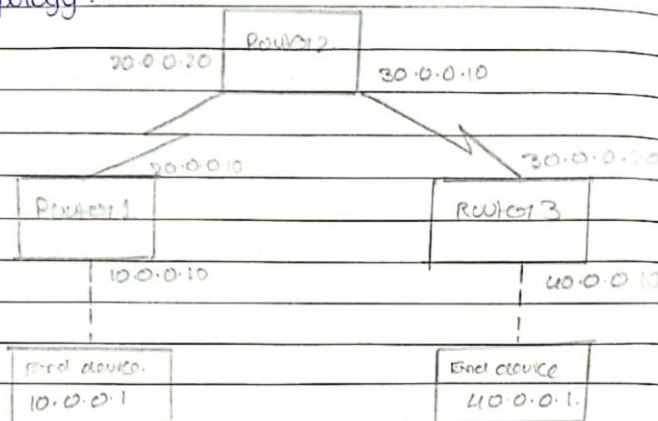
Configure RIP routing Protocol in Routers.

Experiment-5

Aim: Configure RIP routing protocol in routers.

Topology:

Router 2
20.0.0.20   30.0.0.10

20.0.0.10   30.0.0.20

Router 1   Router 3

10.0.0.10   40.0.0.10

First device.   End device
10.0.0.1   40.0.0.1.

Procedure:

* connect 3 routers and 2 end devices.
* Assign IP addresses to both end devices.
* Assign ip address to all routers. Use the following commands.

  1] > enable
  2] > config t
  3] > interface <port>
  4] > ip address <ip address> <subnet mask>
  5] > no shut
  6] > exit.

* Set gateways to end devices
  End device 1: 10.0.0.10.
  End device 2: 40.0.0.10.

* Set a assign routes to all routers. Go to configure mode of router and use the following

commands :

   Router (config)# router rip

   Router (config-router)# network <network address>

   Router (config-router)# network <network address>

   Router (config-router)# no shut

For router 1 :

   Router (config)# router rip

   Router (config-router)# network 10.0.0.0

   Router (config-router)# network 20.0.0.0

Ping and devices to test connection.

Result :

   >ping 10.0.0.1

Pinging 10.0.0.1 with 32 bytes of data

Request timed out.

Reply from 10.0.0.1 bytes=32 time= 6ms TTL=125

Reply from 10.0.0.1 bytes=32 time= 20ms TTL= 125

Reply from 10.0.0.1 bytes=32 time= 2ms TTL=125

Ping statistics for 10.0.0.1 :
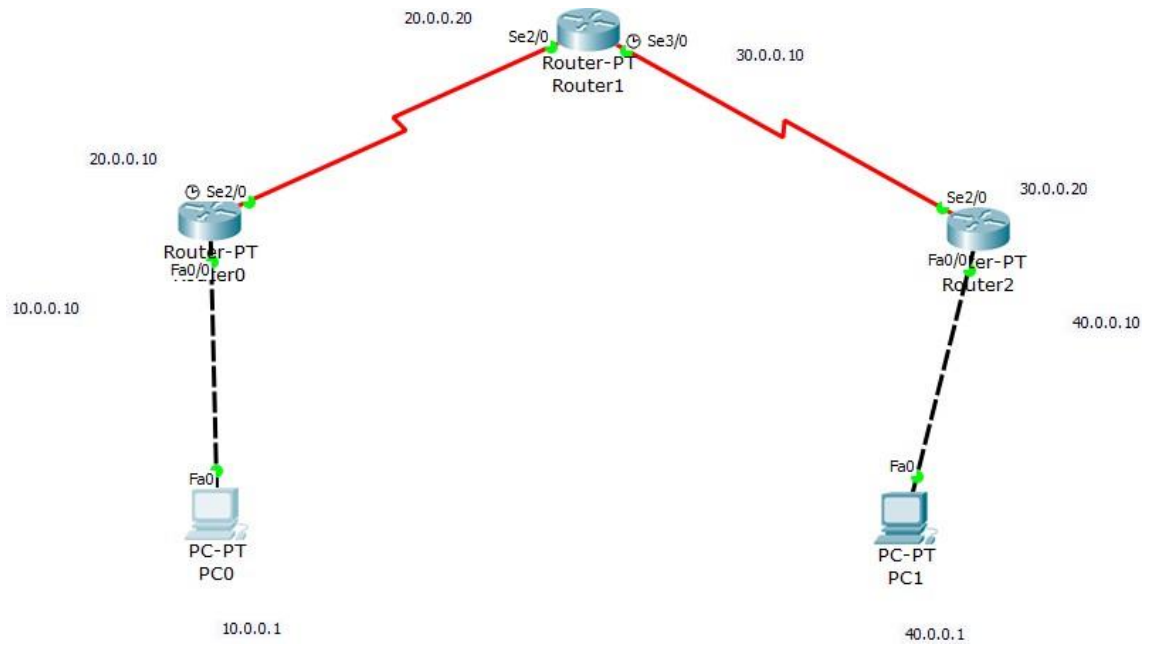
   Packets Sent =4 Received = 3 Lost =1 (25% Loss)

Approximate round trip times in milli-seconds :
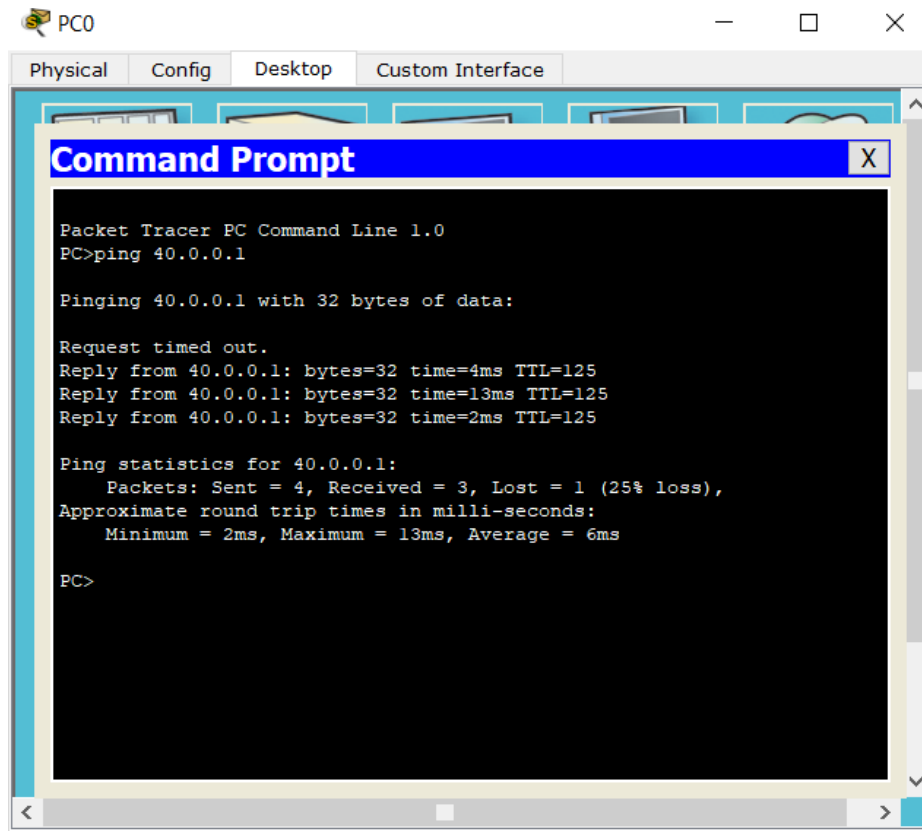Minimum = 2ms, Maximum = 20ms. Average = 10ms

Observation

Routing Information Protocol (RIP) is a dynamic
routing protocol that uses uses hop count as
routing metric to find best path between
source and destination networks. Hop
count is the number of routers occurring
in between source and destination.

Topology:

Result: