Configure IP address to routers in packet tracer. Explore the following messages: ping responses, destination unreachable, request timed out, reply

Lab - 2

Configure IP address and simultate sending a simple PDU ft to routers in packet to tracer. Explore the following messages: Ping responses, destination, unreachable, request timed out, reply.

→ * Connect a PC to router 1, a PC to router 2, connect router 1 and 2 with router 3

* Set IP address of PC to 10.0.0.1 and 20.0.0.1, 30.0.0.1, 40.0.0.1

* let gate way 10.0.0.2, 20.0.0.2, 30.0.0.2, 40.0.0.2

* In router CLI

  enable
  config terminal
  interface fast Ethernet 0/0
  ip address 10.0.0.2
  no shutdown
  → repeat cot for PC2

* Setting serial configuration
  enable
  config t
  interface serial 2/0
  ip address 50.0.0.1
  no shutdown

→ Repeat for router 2

→ In router 3 CLI
  enable
  config t
  interface serial 2/0
  ip address 50.0.0.3
  no shutdown

→ interface serial 3/0
  IP address 60.0.0.3
  no shutdown

o static routing

In router 1 CLI

config t
ip route   30.0.0.0   255.0.0.0   50.0.0.3
ip route   40.0.0.0   255.0.0.0   50.0.0.3
ip route   60.0.0.0   255.0.0.0   50.0.0.3
Show ip route

In router 2 CLI

config t
ip route 10.0.0.0   255.0.0.0 60.0.0.3
ip route 30.0.0.0   255.0.0.0 60.0.0.3
ip route 50.0.0.0   255.0.0.0 60.0.0.3
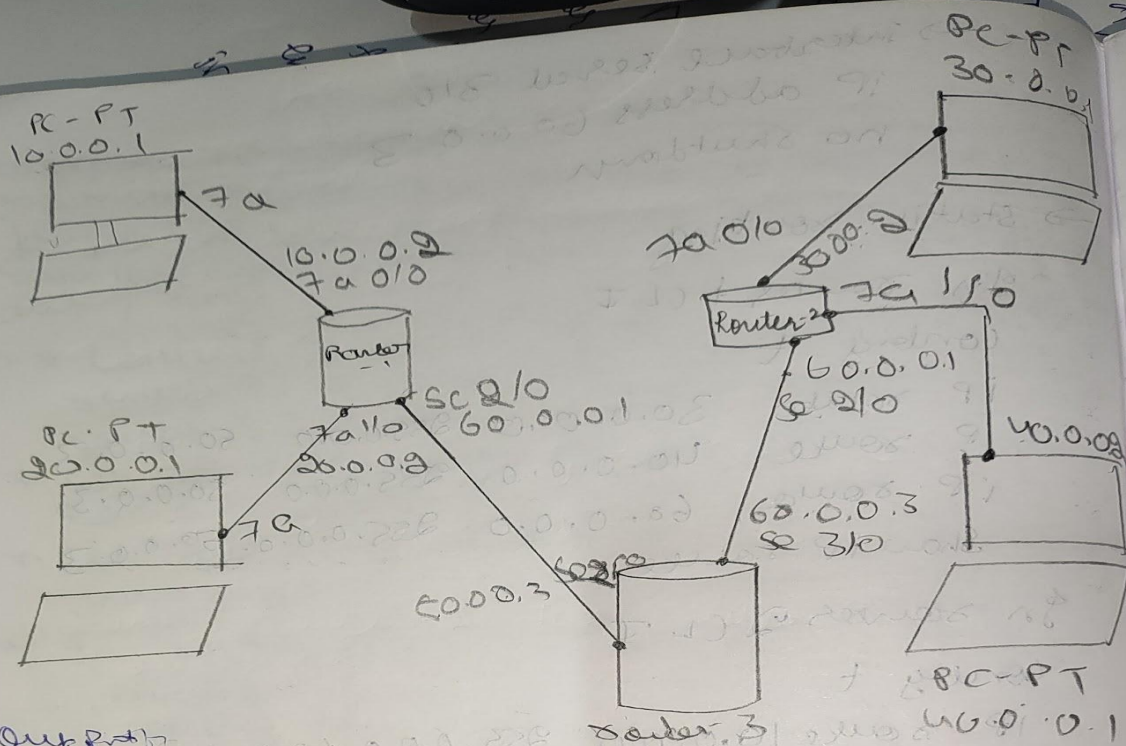
In router 3 CLI
config t
ip route 10.0.0.0   255.0.0.0   50.0.0.1
ip route 30.0.0.0   255.0.0.0   50.0.0.1
ip route 30.0.0.0   255.0.0.0   60.0.0.1
ip route 40.0.0.0   255.0.0.0   60.0.0.1

PC-PT
10.0.0.1

fa

10.0.0.2
fa 0/0

Router

se 2/0
60.0.0.1
fa 1/0

PC-PT
20.0.0.1

fa 1/0
20.0.0.2

fa

60.0.0.3

60.0.0.3
se 3/0

PC-PS
30.0.0.1

fa 0/0   30.0.0.2

Router-2

60.0.0.1
se 2/0

40.0.0.2

60.0.0.3
se 3/0

fa 1/0

PC-PT
40.0.0.1

Router 3

Output:

In PC1 (10.0.0.1)
    Ping 30.0.0.1

Pinging 30.0.0.1 with 32 bytes of data

Reply from 10.0.0.2 : Destination host unreachable
Reply from 10.0.0.2 : Destination host unreachable
Reply from 10.0.0.2 : Destination host unreachable
Reply from 10.0.0.2 : Destination host unreachable

Ping Statistics for 30.0.0.1:
Packet : Sent = 4, Received = 0, lost = 4 (100% loss)

Since 30.0.0.1 is not connected to PC1
directly it should be statically registered

To view ip route.

in PC 1

show ip route

C 10.0.0.0/3 is directly connected -
                                    Fast ethernet 0/0

C 20.0.0.0/3 is directly connected, Fast ethernet 1/0

S 30.0.0.0/3 [1/0] via 50.0.0.3

S 40.0.0.0/8 [1/0] via 50.0.0.3

C 50.0.0.0/8 is directly connected, serial 8/0

S 60.0.0.0/8 [1/0] via 50.0.0.3

in PC 1

Ping 30.0.0.1

Pinging 30.0.0.1 with 32 bytes of data

request timed out

Reply from 30.0.0.1 : bytes=32 time<5ms TTL=125

Reply from 30.0.0.1 : bytes=32 time=2ms TTL=125

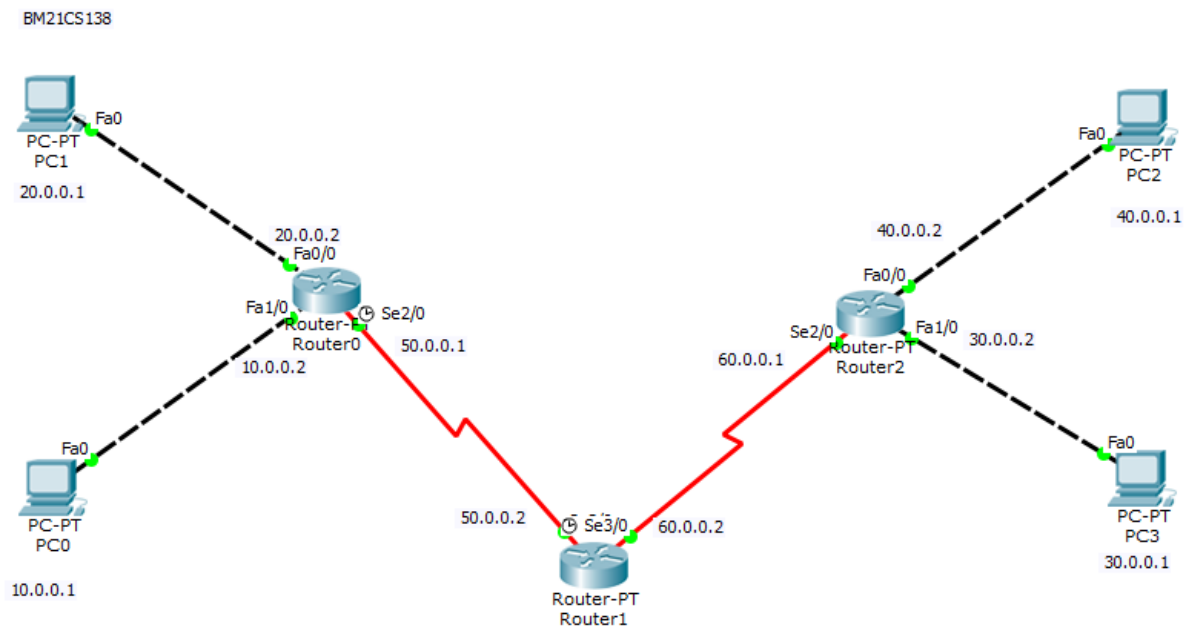Reply from 30.0.0.1 : bytes=32 time=10ms TTL=125

Ping statics for 30.0.0.1

Packets , sent =4 received =3, lost = 1 (25% loss)

Approximate round trip times in milli seconds
Minimum =2ms, Maximum =10ms, Average =5ms

first is lost since it takes time to identify
Pavan.

28/6/23

Topology:

Output:


```
Physical    Config    Desktop    Programming    Attributes

Command Prompt

    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 90.0.0.2

Pinging 90.0.0.2 with 32 bytes of data:

Reply from 90.0.0.2: bytes=32 time=12ms TTL=252
Reply from 90.0.0.2: bytes=32 time=2ms TTL=252
Reply from 90.0.0.2: bytes=32 time=10ms TTL=252
Reply from 90.0.0.2: bytes=32 time=2ms TTL=252

Ping statistics for 90.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 12ms, Average = 6ms

C:\>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=3ms TTL=123
Reply from 40.0.0.1: bytes=32 time=3ms TTL=123
Reply from 40.0.0.1: bytes=32 time=3ms TTL=123

Ping statistics for 40.0.0.1:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 3ms, Maximum = 3ms, Average = 3ms

C:\>ping 50.0.0.1

Pinging 50.0.0.1 with 32 bytes of data:

Request timed out.
Reply from 50.0.0.1: bytes=32 time=3ms TTL=124
Reply from 50.0.0.1: bytes=32 time=6ms TTL=124
Reply from 50.0.0.1: bytes=32 time=2ms TTL=124

Ping statistics for 50.0.0.1:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 6ms, Average = 3ms

C:\>
```