

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

Date: 23/06/23
Create IP address to routers in packet tracer.
Explore the following messages: ping responses, destination unreachable, request timed out, reply.

Step 1: Place 4 PC's on workspace and 3 routers on workspace

Step 2: Connect 2 PC's to one router & another 2 PC's to other router. Connect these 2 routers to third router.

Step 3: Set the IP address of 1st PC as 10.0.0.1 and gateway to 10.0.0.2.
Set the IP address of 2nd PC to 20.0.0.1 and gateway to 20.0.0.2.
Set the IP address of 3rd PC to 30.0.0.1 and gateway to 30.0.0.2.

Set the IP address of 4th PC to 40.0.0.1 and gateway to 40.0.0.2.

Step 4: In CLI of router 1,

enable

config terminal

interface fastethernet 0/0

ip address 10.0.0.2 255.0.0.0

no shutdown

Repeat the same in CLI of router 2

Step 5: In CLI of router 1,

To set the serial configuration

enable

config terminal

interface ~~fastethernet~~ serial 2/0

ip address 50.0.0.1

no shutdown

Repeat the same in router 2 & router 3

Command prompt Output:

In PC1,

ping 30.0.0.1

pinging 30.0.0.1 with 32 bytes of data

Reply from 20.0.0.2: 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:

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

Since, IP address 30.0.0.1 is not directly connected to router 1, so, manually 30.0.0.0 needs to be connected to router 1

In CLI of router 1.

To set the static configuration,

enable

config terminal

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

Same is repeated to router 2 & router 3

To view ip route,

show ip route

C 10.0.0.0/8 is directly connected, FastEthernet0/0

C 20.0.0.0/8 is directly connected, FastEthernet1/0

S 30.0.0.0/8 [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, Serial2/0

S 60.0.0.0/8 [1/0] via 50.0.0.3

In PC1,

ping 30.0.0.1

Pinging 30.0.0.1 with 32 bytes of data:

Reply from

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 statistics for 30.0.0.1:

Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),

Approximate round trip times in milliseconds:

Minimum = 2ms, Maximum = 10ms, Average = 5ms

First is lost since it takes time to identify the path.

ping 30.0.0.1

Pinging 30.0.0.1 with 32 bytes of data:

Reply from 30.0.0.1: bytes = 32 time = 3ms TTL = 125

Reply from 30.0.0.1: bytes = 32 time = 11ms TTL = 125

Reply from 30.0.0.1: bytes = 32 time = 4ms TTL = 125

Reply from 30.0.0.1: bytes = 32 time = 6ms TTL = 125

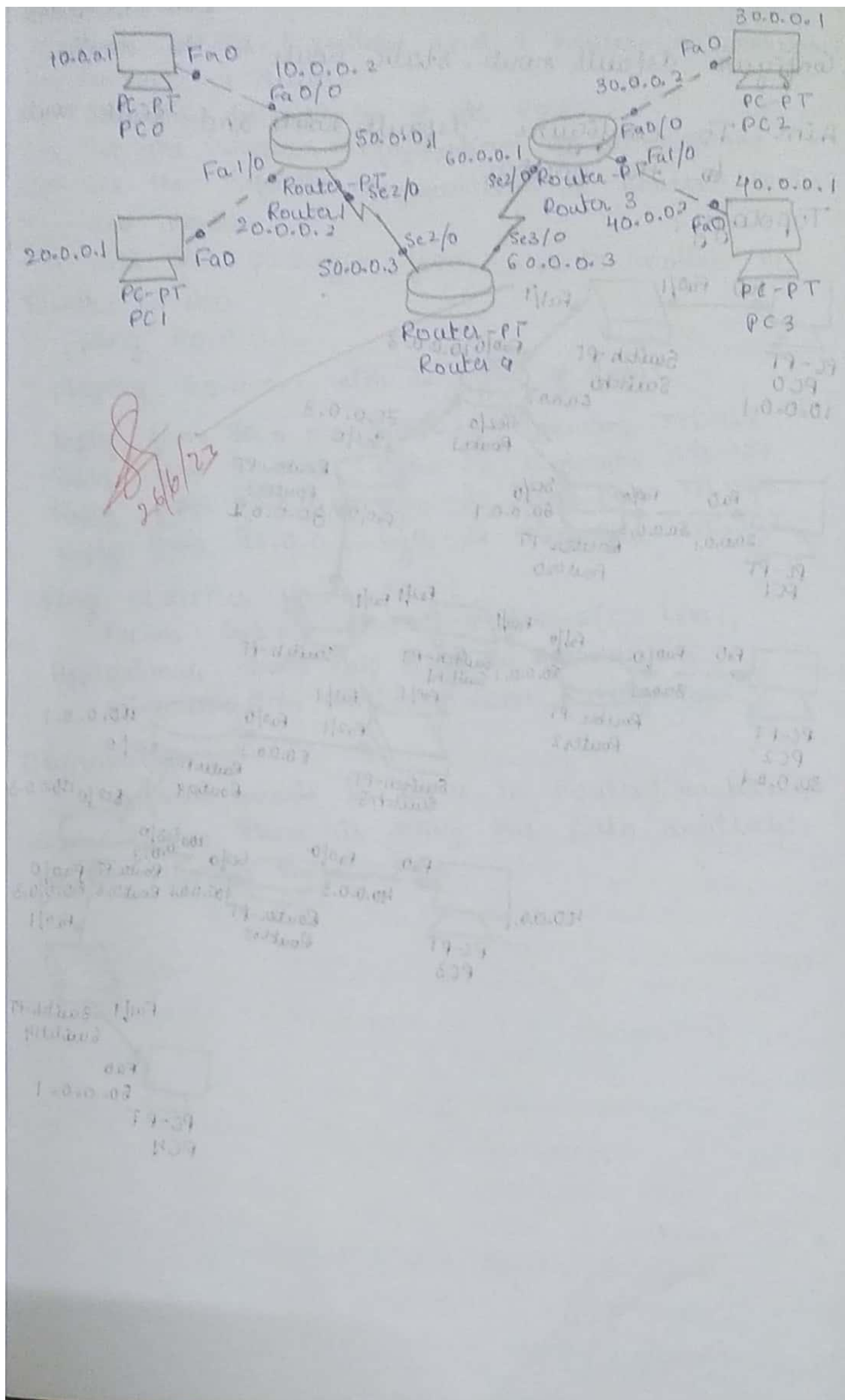
Ping statistics for 30.0.0.1:

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

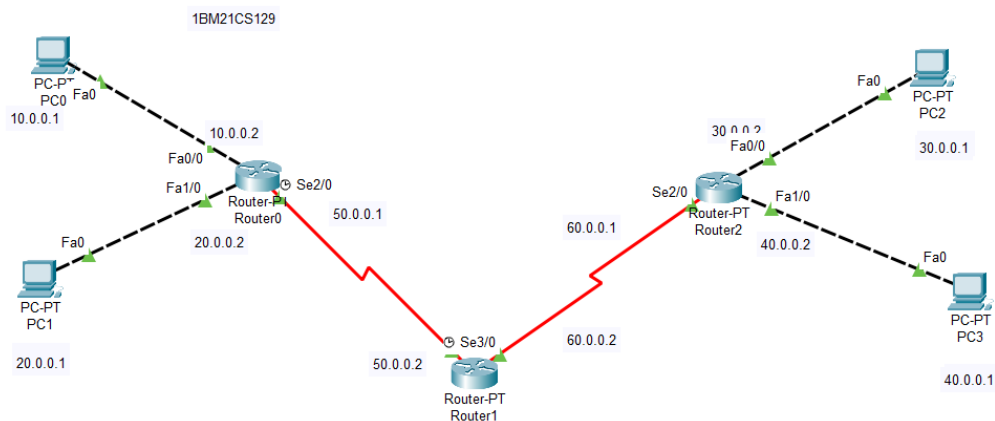
Approximate round trip times in milliseconds:

Minimum = 3ms, Maximum = 11ms, Average = 6ms

Topology



Topology:



Output:

```
PC1
Physical Config Desktop Programming Attributes
Command Prompt

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

C:\>ping 30.0.0.1

Pinging 30.0.0.1 with 32 bytes of data:

Reply from 20.0.0.2: Destination host unreachable.
Reply from 20.0.0.2: Destination host unreachable.
Reply from 20.0.0.2: Destination host unreachable.
Reply from 20.0.0.2: Destination host unreachable.

Ping statistics for 30.0.0.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 50.0.0.1

Pinging 50.0.0.1 with 32 bytes of data:

Reply from 50.0.0.1: bytes=32 time<1ms TTL=255
Reply from 50.0.0.1: bytes=32 time<1ms TTL=255
Reply from 50.0.0.1: bytes=32 time<1ms TTL=255
Reply from 50.0.0.1: bytes=32 time<1ms TTL=255

Ping statistics for 50.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 50.0.0.2

Pinging 50.0.0.2 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 50.0.0.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
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