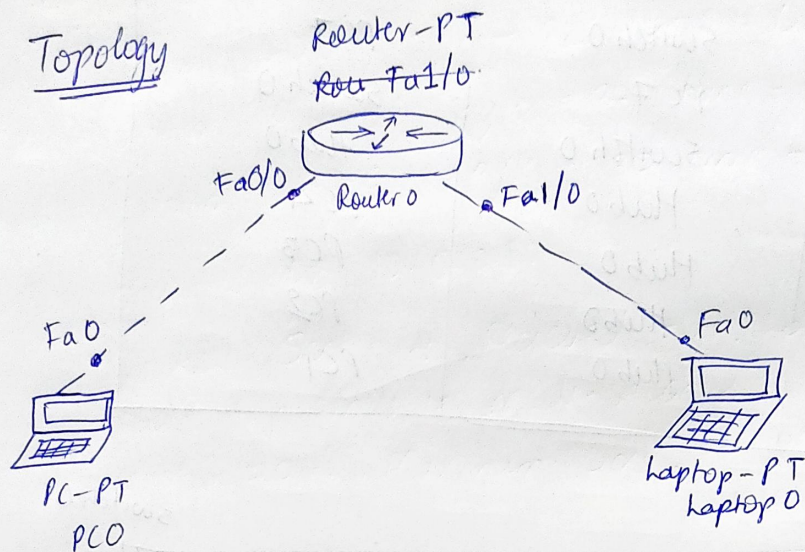


Configuring IP address to Router in Packet Tracer.
Explore the following messages: Ping response, Destination unreachable, Request timed out, Reply.

Topology

Routers are sophisticated multi-port devices. They operate at Network layer and use a Routing table to determine which path from src to dest. should be selected.

Procedure:

- * Select 2 generic end devices from the device-type selection box. We give source device IP address as 10.0.0.1 and 20.0.0.1 to the other device. Subnet mask 255.0.0.0
- * We then select a generic Router-PT and connect it to the end devices using copper cross-over connections.
- * We see interface b/w end devices and router denoted by a red dot (not functioning).
- * To configure the router type the follg. commands in Router's CLI.

Continue with configuration dialog? [yes/no]: no

1st side configuration

Router > enable

Router # config terminal

Router (config) # interface fastEthernet 0/0

Router (config-if) # IP address 10.0.0.10 255.0.0.0

Router (config-if) # no shutdown

Router (config-if) # exit.

2nd side configuration

Router (config-if) # interface fastEthernet 1/0

Router (config-if) # IP address 20.0.0.10 255.0.0.0

Router (config-if) # no shutdown

Router (config-if) # exit.

* Now the interfaces turn to green color indicating network is functional.

* Select a ^{end} device, (10.0.0.1) and in command prompt

PC > ping 20.0.0.1

Output

pinging 20.0.0.1 with 32 bytes of data

Request timed out

~~Request~~ timed out

~~Request~~ timed out

~~Request~~ timed out

* Gateway address has to be added for end devices to know where to send PDU when router is present.

For 10.0.0.1 → set gateway 10.0.0.10

20.0.0.1 → set gateway 20.0.0.10

Ankith S

After setting gateway, now in command line.

PC > ping 10.0.0.1

OTR
pinging 10.0.0.1 with 32 bytes of data:

Reply from 10.0.0.1: bytes = 32 time = 0ms TTL = 127

Reply from 10.0.0.1: bytes = 32 time = 0ms TTL = 127

Reply from 10.0.0.1: bytes = 32 time = 0ms TTL = 127

Reply from 10.0.0.1: bytes = 32 time = 0ms TTL = 127

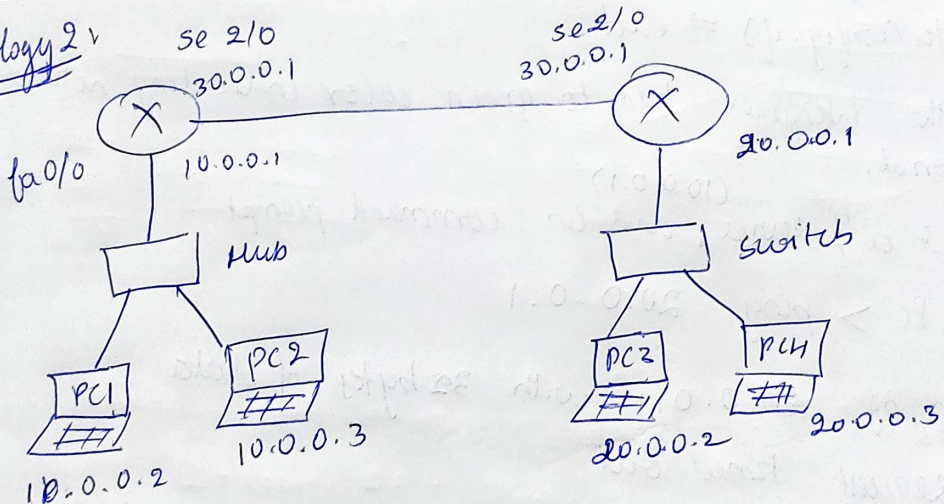
Ping statistics for 10.0.0.1:

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

Approx round trip times in milli-seconds:

minimum = 0ms, Maximum = 0ms, Avg. = 0ms

Topology 2



Router 1 config:

```
interface fastEthernet 0/0
ip address 10.0.0.10 255.0.0.0
no shutdown
```

exit

```
interface serial 2/0
```

```
ip address 30.0.0.10 255.0.0.0
no shutdown
```

→ exit

Router 2 config :

```
interface fastEthernet 0/0
ip address 20.0.0.10 255.0.0.0
no shutdown
exit
interface serial 2/0
ip address 30.0.0.10 255.0.0.0
no shutdown
exit
```

from 10.0.0.1

PC> Ping 30.0.0.10

O/p:

Packets : Sent = 4 , Received = 4 , Lost = 0

From 10.0.0.1

PC> Ping 20.0.0.1

O/p:

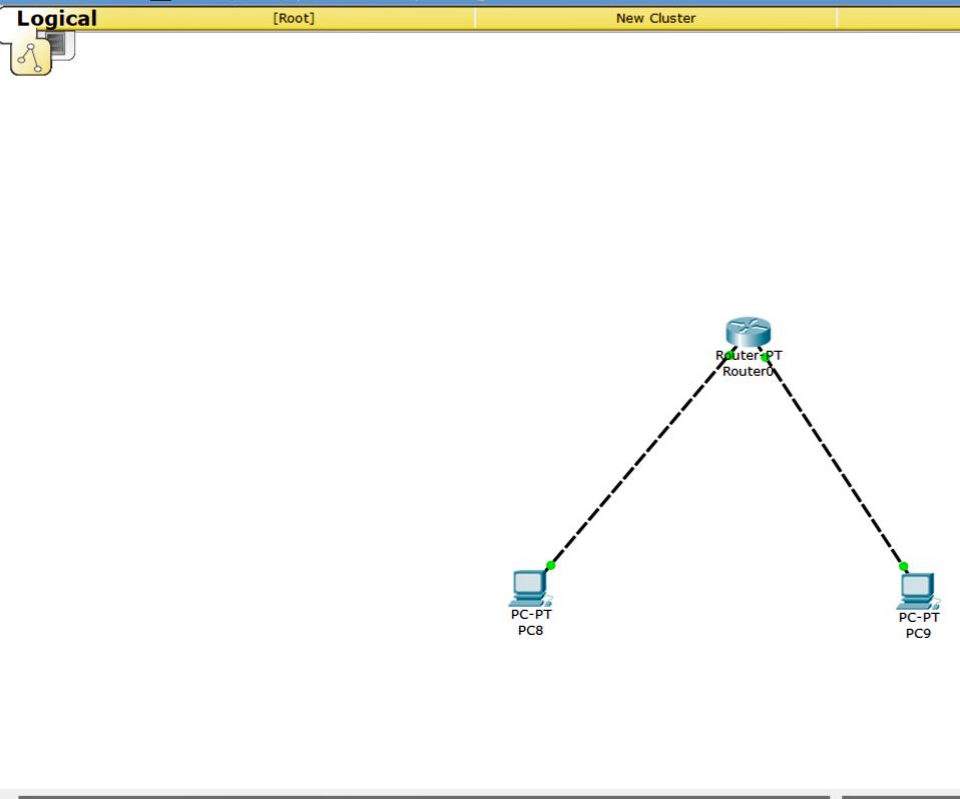
Reply from 10.0.0.10 :

Destination host unreachable

Packets : sent = 4 , Received = 0

Lost = 4 (100% loss)

Ans.
17/4/22



PC9

Physical Config Desktop Custom Interface

Command Prompt

```
Packet Tracer PC Command Line 1.0
PC>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=0ms TTL=127
Reply from 10.0.0.1: bytes=32 time=1ms TTL=127
Reply from 10.0.0.1: bytes=32 time=0ms TTL=127

Ping statistics for 10.0.0.1:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

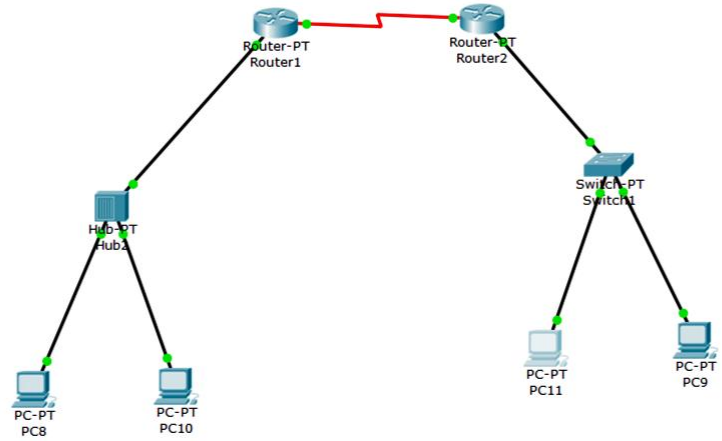
PC>ping 10.0.0.1

Pinging 10.0.0.1 with 32 bytes of data:

Reply from 10.0.0.1: bytes=32 time=0ms TTL=127
Reply from 10.0.0.1: bytes=32 time=0ms TTL=127
Reply from 10.0.0.1: bytes=32 time=0ms TTL=127
Reply from 10.0.0.1: bytes=32 time=0ms TTL=127

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>
```



PC11
Physical
Config
Desktop
Custom Interface

Command Prompt

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 20.0.0.10: Destination host unreachable.

Reply from 20.0.0.10: Destination host unreachable.

Reply from 20.0.0.10: Destination host unreachable.

Reply from 20.0.0.10: Destination host unreachable.

Ping statistics for 10.0.0.1:

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

PC>