

Single Router

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

Lab 2

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

Aim: To demonstrate the connection between two end devices in two different networks using the router.

Topology:

```
graph LR
    PC0[PC-PT PC0] --- R[Router-PT Router 0]
    R --- PC1[PC-PT PC1]
```

10.0.0.10
def gateway 10.0.0.1

20.0.0.10
def gateway 20.0.0.1

Procedure:

1. Launch Cisco packet tracer
2. Add end devices and the router
3. Connect the device using a copper crossover cable to connect each PC to the router
4. IP config → ip address
PC0 : 10.0.0.10 255.0.0.0
PC1 : 20.0.0.10 255.0.0.0

def gateway:

PC0 : 10.0.0.1
PC1 : 20.0.0.1

⑤ Router Config → CLI
~~enable~~
 config terminal
 interface fastEthernet 0/0
 ip address 10.0.0.1 255.0.0.0
 no shutdown
 exit

repeat for second device with
 interface fastEthernet 1/0
 ip address 20.0.0.1 255.0.0.0

⑥ device → Desktop → Command prompt → ping 20.0.0.10

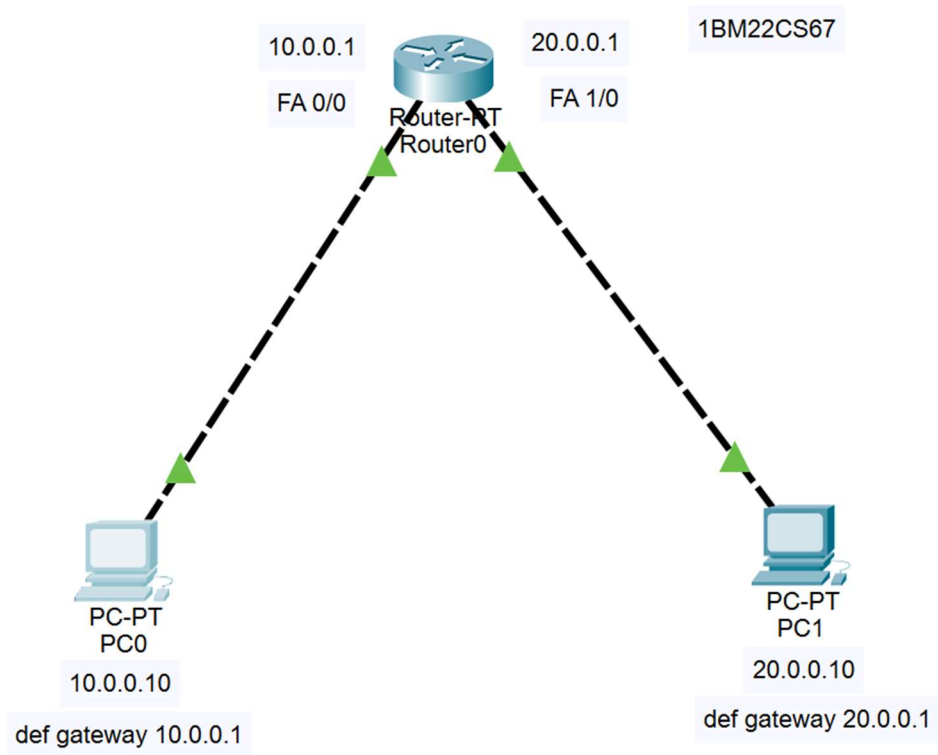
Observation:

We observe that initially when the ping request is sent we get a timeout error but after some time we get 3 replies and the message that packets have been sent and received will display.

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Routing has been observed as follows:

C 10.0.0.0/8 is directly connected, FastEthernet 0/0
 C 20.0.0.0/8 is directly connected, FastEthernet 1/0



Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 20.0.0.10

Pinging 20.0.0.10 with 32 bytes of data:

Request timed out.
Reply from 20.0.0.10: bytes=32 time<1ms TTL=127
Reply from 20.0.0.10: bytes=32 time<1ms TTL=127
Reply from 20.0.0.10: bytes=32 time=17ms TTL=127

Ping statistics for 20.0.0.10:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 17ms, Average = 5ms

C:\>ping 20.0.0.10

Pinging 20.0.0.10 with 32 bytes of data:

Reply from 20.0.0.10: bytes=32 time<1ms TTL=127
Reply from 20.0.0.10: bytes=32 time=4ms TTL=127
Reply from 20.0.0.10: bytes=32 time<1ms TTL=127
Reply from 20.0.0.10: bytes=32 time<1ms TTL=127

Ping statistics for 20.0.0.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 4ms, Average = 1ms
```