

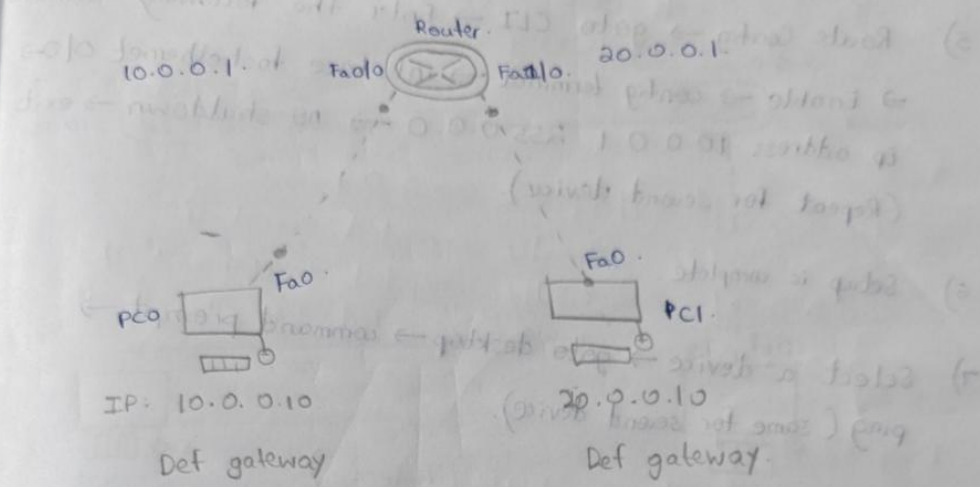
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Lab - 2

Router.

Config IP address to routers in packet tracer, explore the messages ping responses, destination, unreachable, request timed out, reply.

Aim: To demonstrate the connection b/w two end devices in two different networks using the router.



Procedure:

- 1) Open Cisco packet tracer.
- 2) Add the end devices and the router from the left hand icon menu.
- 3) Connect the device: use a copper crossover cable to connect each PC to the router.
- 4) IP Config on each device → go to config → fast ethernet
 enter IP: 10.0.0.10 255.0.0.0
 PC0: 10.0.0.10 255.0.0.0
 PC1: 20.0.0.10 255.0.0.0

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Change gateway:

PC0: 10.0.0.1

PC1: 20.0.0.1

- 5) Route Config → goto CLI → Enter the following commands
⇒ Enable → config terminal → interface fastEthernet 0/23
ip address 10.0.0.1 255.0.0.0 → no shutdown → exit
(Repeat for second device).
- 6) Setup is complete.
- 7) Select a device → goto desktop → command prompt, →
ping (same for second device).

Observation:

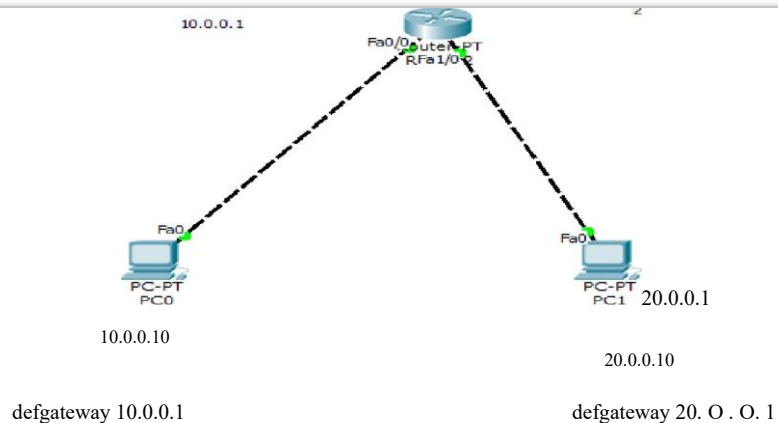
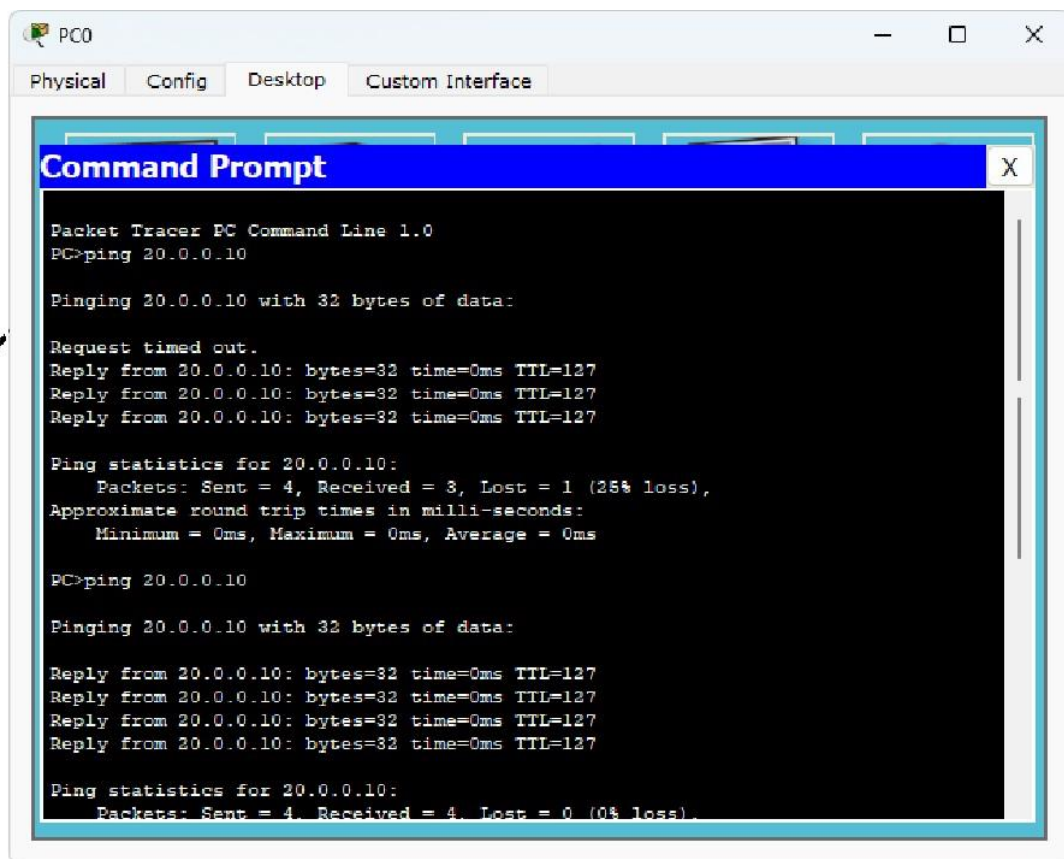
We observe that initially when ping request is sent we get a time out error (Router locates the ^{device} second) but often some time we get 3 replies & the message that packets have been sent & received & displays the approx time that it takes to complete all this.

Routing table shows the following:

Connected : 10.0.0.0/8 is directly connected, FastEthernet 0/0

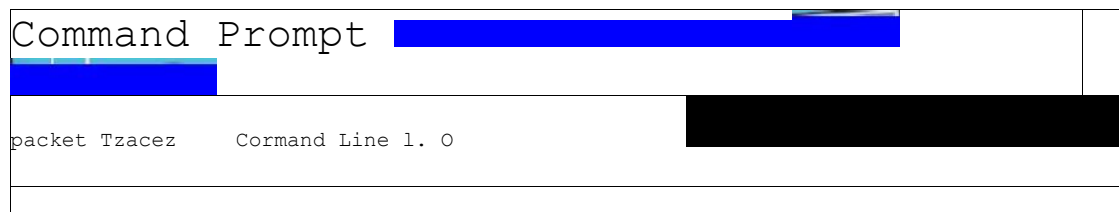
Connected : 20.0.0.0/8 is directly connected, FastEthernet 1/0.

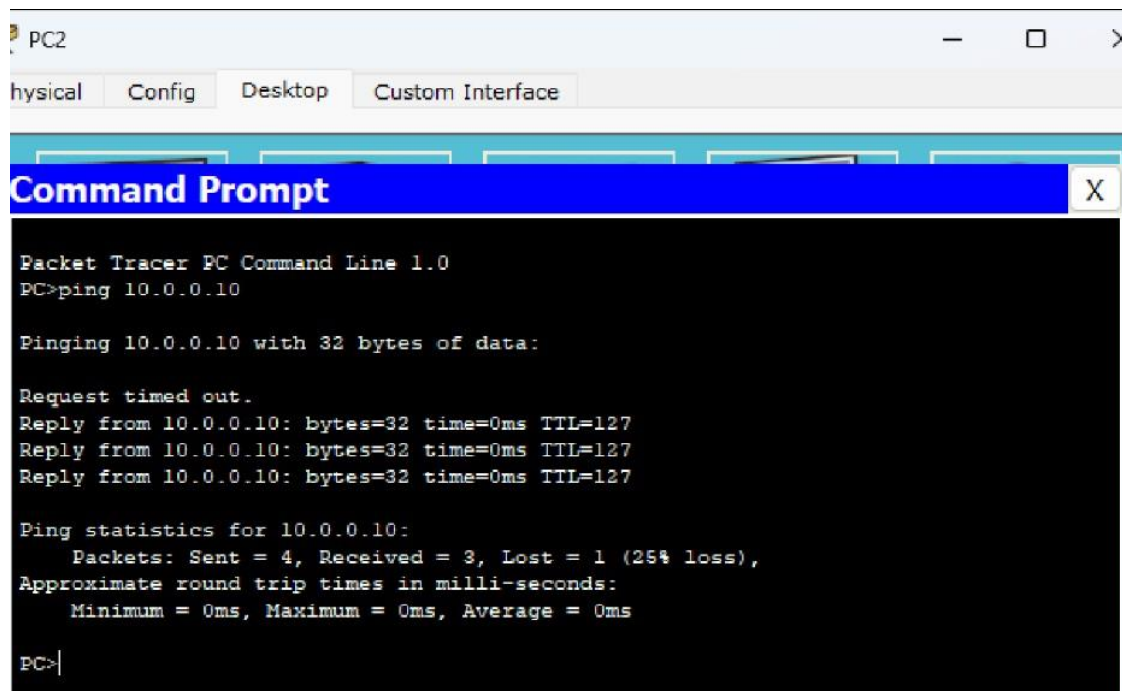
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physicalConfig DesktopCustom Interface





The image shows a Packet Tracer PC Command Line window for PC2. The window has tabs for 'Physical', 'Config', 'Desktop', and 'Custom Interface'. The 'Desktop' tab is active, displaying a 'Command Prompt' window. The command prompt shows the execution of a ping command to 10.0.0.10. The output indicates that the first ping request timed out, while the subsequent three succeeded with 0ms response times. The final statistics show 4 packets sent, 3 received, and a 25% loss.

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PC2
Physical Config Desktop Custom Interface

Command Prompt

Packet Tracer PC Command Line 1.0
PC>ping 10.0.0.10

Pinging 10.0.0.10 with 32 bytes of data:

Request timed out.
Reply from 10.0.0.10: bytes=32 time=0ms TTL=127
Reply from 10.0.0.10: bytes=32 time=0ms TTL=127
Reply from 10.0.0.10: bytes=32 time=0ms TTL=127

Ping statistics for 10.0.0.10:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>
```

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Reply from 10.0.0.10: bytes=32 time=0ms TTL=127
Reply from 10.0.0.10: bytes=32 time=0ms TTL=127
Reply from 10.0.0.10: bytes=32 time=0ms TTL=127

Ping statistics for 10.0.0.10:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>|
```