

Program 2

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

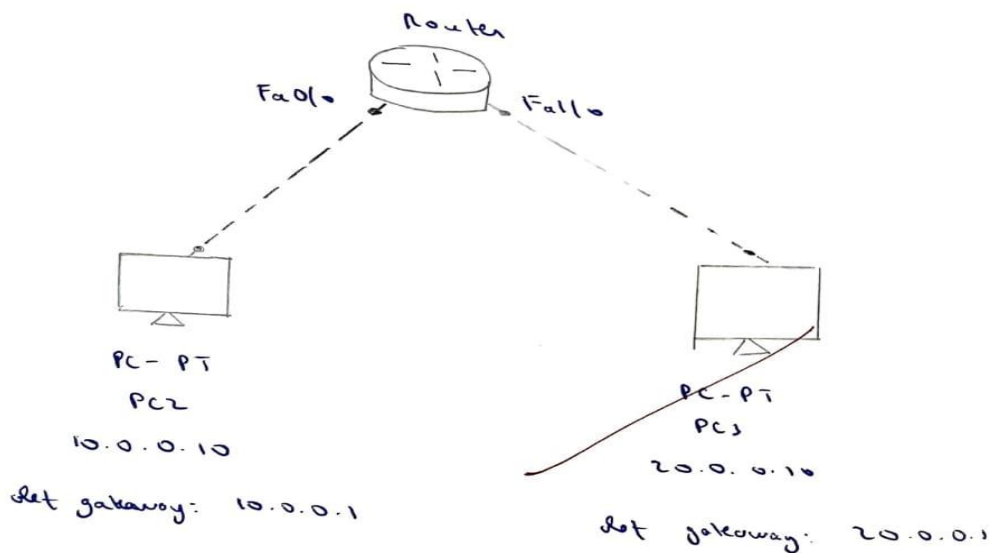
Topology , Procedure and Observation:

9/10/24

EXPERIMENT 2

Aim: To connect two different PCs on two different networks using a router

Topology:



Procedure:

- 1) Two PCs (PC0 & PC1) are assigned with IP. 10.0.0.10 and 20.0.0.10 and gateway 10.0.0.1 & 20.0.0.1 respectively.

2) Open CLI in router & enter the following:

```
Router > enable
```

```
Router # config t
```

```
Router (config) # interface fast ethernet 0/0
```

```
Router (config-if) # ip address 10.0.0.1
```

```
255.0.0.0
```

```
Router (config-if) # no shutdown
```

```
exit
```

```
Router (config) # interface fast ethernet 1/0
```

```
Router (config-if) # ip address 20.0.0.1
```

```
255.0.0.0
```

```
Router (config-if) # no shutdown
```

```
exit.
```

3) Ping another system or interface from the command prompt of PC0 or PC1

using command

```
> ping 10.0.0.10
```

Observation:

Command prompt gives output

Pinging 10.0.0.10 with 32 bytes of data:

ping statistics for 10.0.0.10:

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

(0% loss)

Approximate round trip times in milliseconds:

Minimum = 0ms, Maximum = 2m, Average = 0ms

The following table of IP route has been observed:

Router > crable

Router # show ip route

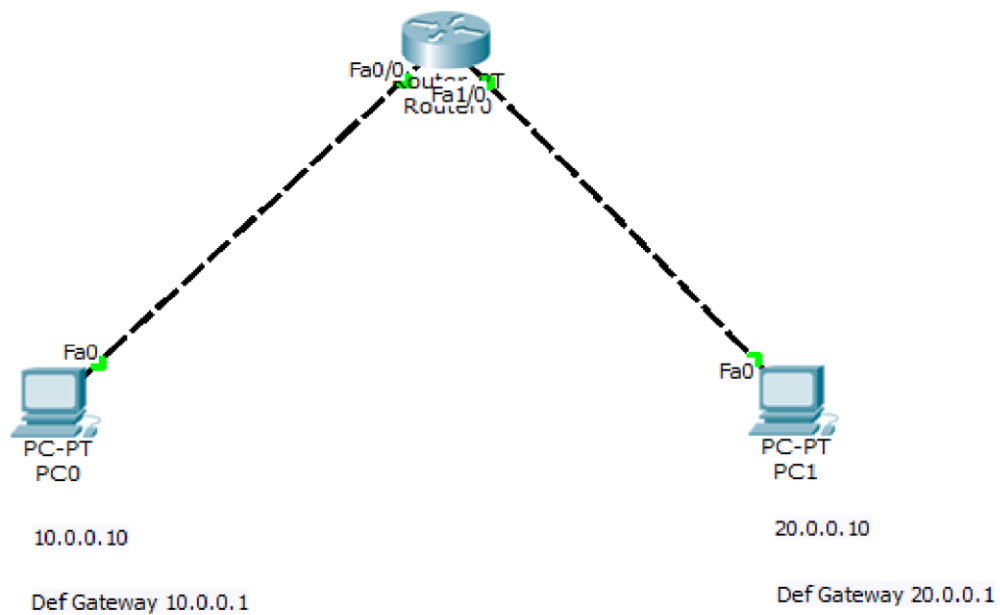
Codes: C - connected.

Gateway of last resort is not set

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

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

Screen Shots:



The screenshot shows a window titled "PC0" with tabs for "Physical", "Config", "Desktop", and "Custom Interface". The "Custom Interface" tab is active, displaying a "Command Prompt" window. The Command Prompt shows the results of a ping command from PC0 to 20.0.0.10. The first attempt shows a "Request timed out." and a 25% loss. The second attempt shows successful results with 0% loss.

```
PC0
Physical Config Desktop Custom Interface
Command Prompt
Pinging 20.0.0.10 with 32 bytes of data:

Request timed out.
Reply from 20.0.0.10: bytes=32 time=0ms TTL=127
Reply from 20.0.0.10: bytes=32 time=0ms TTL=127
Reply from 20.0.0.10: bytes=32 time=0ms 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 = 0ms, Average = 0ms

PC>ping 20.0.0.10

Pinging 20.0.0.10 with 32 bytes of data:

Reply from 20.0.0.10: bytes=32 time=0ms TTL=127
Reply from 20.0.0.10: bytes=32 time=0ms TTL=127
Reply from 20.0.0.10: bytes=32 time=0ms TTL=127
Reply from 20.0.0.10: bytes=32 time=0ms 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 = 0ms, Average = 0ms

PC>
```