

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:

Routers

Aim :- To connect two PCs with two different network using a router.

Topology

```
graph TD
    Router((Router)) ---|Fa0/0| PC0[PC0]
    Router ---|Fa0/1| PC1[PC1]
    PC0 --- PC1
```

PC-PT PC0
10.0.0.10
10.0.0.1 - def gateway

PC-PT PC1
20.0.0.10
20.0.0.1 - def gateway

Procedure

Procedure

1. Set up two with two generic PCs and one generic router.
2. Set the IP address of PC0 with 10.0.0.10 and PC1 with 20.0.0.10
3. Set the gateway for Fa0/0 as 10.0.0.1 and for Fa0/1 as 20.0.0.1
4. Now open command line Interface of router and write the following commands.

- enable
- config terminal
- interface fastEthernet 0/0
- ip address 10.0.0.1 255.0.0.0
- no shutdown
- exit

interface fastEthernet 0/1
ip address 20.0.0.1 255.0.0.0
no shutdown
exit

- Then ping the in command prompt type
ping 20.0.0.10
- Stimulate and observe the output

Observation

1. Data packet was sent from PC 10.0.0.10 to router.
2. The router sent the packet to PC 20.0.0.10.
3. Data packet back to router → back to PC 10.0.0.10 and a tick mark is blinks.

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

Ping statistics for 20.0.0.10

Packets sent=4, received=4, lost=0.

Approximate round trip time in milliseconds

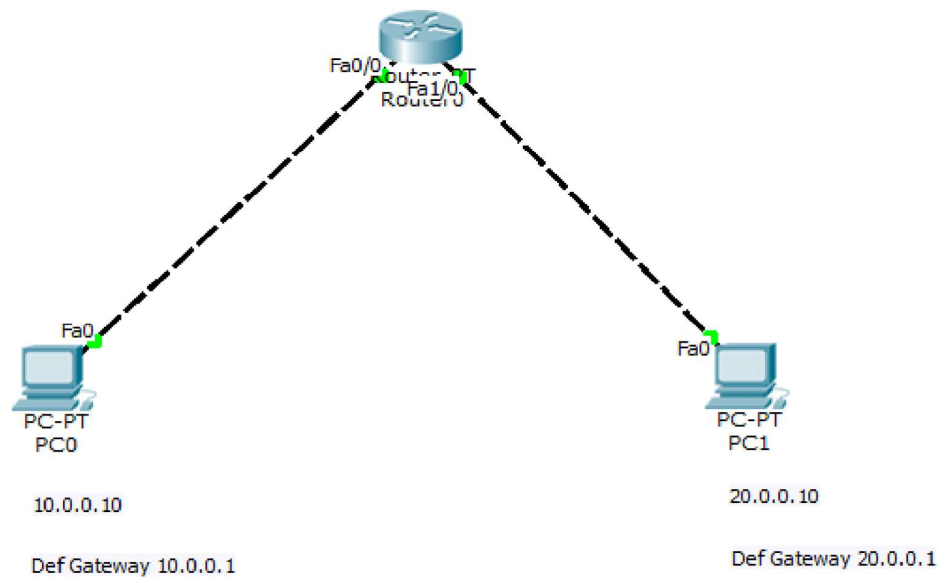
Minimum=0ms Maximum=0ms Average=0ms

70/ ~~C. to~~
H Show ip route command we get the route table 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

OK

Screen Shots:



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>
```