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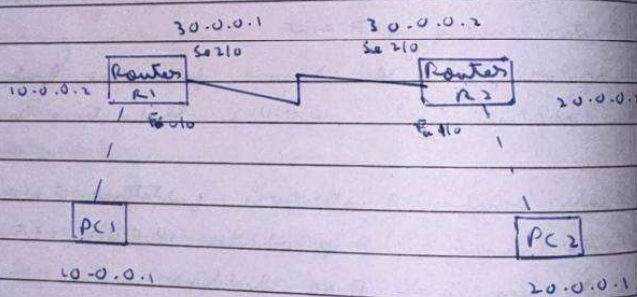
LAB-3

- 2) configure IP address to routers in packet tracer. Explore the following routing ping responses, destination unreachable, request timed out

Aim:  
configuring routers and exploring ping responses between them

Devices used:  
router and end devices

Topology:



Procedure:

- (i) select a generic router R1
- (ii) connect an end device PC1 to router R1 using parallel connection fastethernet 0/0
- (iii) configure PC1 with ip address 10.0.0.1 and gateway 10.0.0.2
- (iv) similarly select another router R2 and connect another end device PC2 fastethernet

configure gateway

Now go

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⑤ Configure PC with IP address 20.0.0.1 and gateway 20.0.0.2

Now go to Router R1 and its CLI and enter:

Router > enable

Router # config terminal

Router (config) # interface fastethernet 0/0

Router (config-if) # ip address 10.0.0.2 255.0.0.0

Router (config-if) # no shutdown

"Interface fastethernet 0/0, changed state to up"

Similarly select Router R2 and go to CLI:

Router > enable

Router # config terminal

Router (config) # interface fastethernet 1/0

Router (config-if) # ip address 20.0.0.2 255.0.0.0

Router (config-if) # no shutdown

"Interface fastethernet 1/0, changed state to up"

Now the connection between Router and devices established

Now connect Router R1 to Router R2 using serial cable (ethernet connected). Now, to setup connection between the Routers, go to Router R1 and then go to CLI:

Router (config) # interface serial 2/0

Router (config-if) # ip address 30.0.0.2 255.0.0.0

Router (config-if) # no shutdown

"Interface serial 2/0, changed state to up"



Observation:

After setting up the mentioned topology,  
to ping PC2 with PC1.  
Open command prompt for PC1 and  
type ping 20.0.0.1  
→ Destination unreachable  
Packets sent: 4 received: 0 lost: 4 loss: 100%

It is also observed that PC1 was only  
pinged with router R1.

ping 30.0.0.1

Packets sent: 4 received: 4 lost: 0 loss: 0%

This was successful

Hence, although the routers were connected  
serially, the end devices were unable to  
ping each other.

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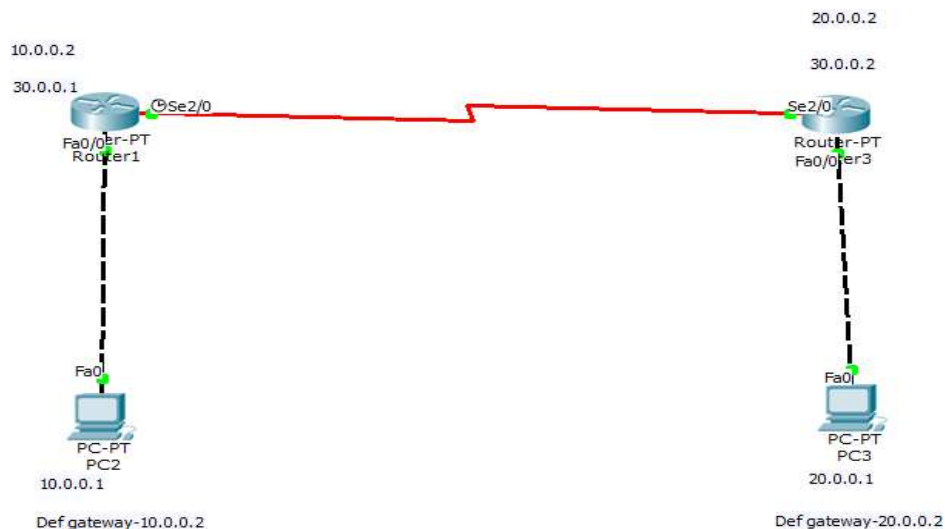
(i)

(ii)

(iii)

(iv)

(v)



PC2

Physical Config Desktop Custom Interface

### Command Prompt

```
Reply from 10.0.0.2: Destination host unreachable.  
Reply from 10.0.0.2: Destination host unreachable.  
Reply from 10.0.0.2: Destination host unreachable.  
  
Ping statistics for 20.0.0.1:  
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),  
  
PC>ping 20.0.0.1  
  
Pinging 20.0.0.1 with 32 bytes of data:  
  
Reply from 10.0.0.2: Destination host unreachable.  
Reply from 10.0.0.2: Destination host unreachable.  
Reply from 10.0.0.2: Destination host unreachable.  
Reply from 10.0.0.2: Destination host unreachable.  
  
Ping statistics for 20.0.0.1:  
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),  
  
PC>ping 20.0.0.2  
  
Pinging 20.0.0.2 with 32 bytes of data:  
  
Reply from 10.0.0.2: Destination host unreachable.  
Reply from 10.0.0.2: Destination host unreachable.  
Reply from 10.0.0.2: Destination host unreachable.  
Reply from 10.0.0.2: Destination host unreachable.  
  
Ping statistics for 20.0.0.2:  
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),  
  
PC>
```