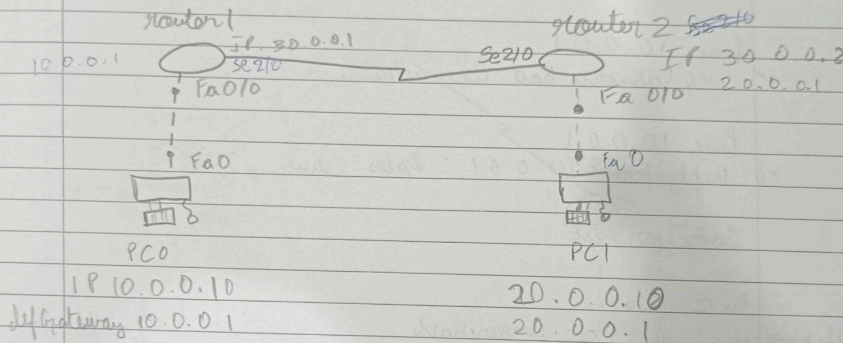


11/10/24

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

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



Procedure:

- 1) Open packet tracer.
- 2) Add two routers & two end devices.
- 3) Connect them using copper crossover (router-device) & serial DCE (router-router).
- 4) IP config for each device
 

PC0	PC2
IP 10.0.0.10	20.0.0.10
subnet 255.0.0.0	255.0.0.0
def gateway 10.0.0.1	20.0.0.1

- 5) Router cli → Enter → No → Enable → config terminal  
 → Enter ~~Enter~~ interface FastEthernet 0/0 or serial 2/0  
 (for router to router) → Enter IP & subnet  
 → No shutdown exit → Exit

8) Go to device → desktop → Command prompt → ping the device

Result:

show IP route →  
 S\* 10.0.0.0/8 [1/0] via 30.0.0.1  
 C 30.0.0.0/8 is directly connected, Serial 2/0  
 C 20.0.0.0/8 is directly connected, FastEthernet 0/0  
 C 10.0.0.0/8 is directly connected, FastEthernet 0/0

Ping 10.0.0.1  
 x4 Destination host unreachable

Ping 10.0.0.1  
 x4 Reply from 10.0.0.1: bytes=32 time=1ms TTL=64

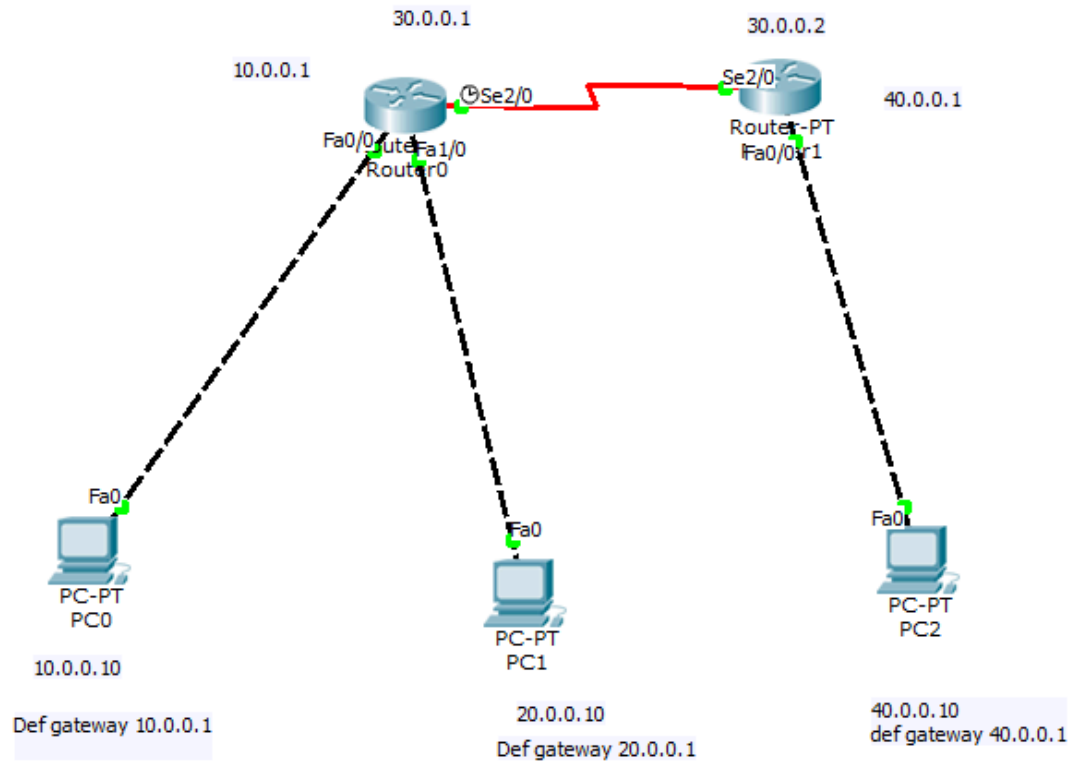
Same for next

Ping 20.0.0.10  
 Reply from 20.0.0.10: Destination host unreachable  
 Reply from 20.0.0.10: Destination host unreachable  
 Reply from 20.0.0.10: Destination host unreachable

In Config of Router  
 Config IP route 20.0.0.0 255.0.0.0 30.0.0.1  
 In Command Prompt of PC  
 Ping 20.0.0.10

10/10/21

Request timed out  
 Reply from 20.0.0.10: bytes=32 time=8ms TTL=125  
 " " " 7 " "  
 " " " 6 " "



```
PC0
Physical Config Desktop Custom Interface
Command Prompt
Packet Tracer PC Command Line 1.0
PC> ping 40.0.0.10

Pinging 40.0.0.10 with 32 bytes of data:

Reply from 10.0.0.1: Destination host unreachable.
Reply from 10.0.0.1: Destination host unreachable.
Request timed out.
Reply from 10.0.0.1: Destination host unreachable.

Ping statistics for 40.0.0.10:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

PC> ping 40.0.0.10

Pinging 40.0.0.10 with 32 bytes of data:

Reply from 10.0.0.1: Destination host unreachable.
Reply from 10.0.0.1: Destination host unreachable.
Reply from 10.0.0.1: Destination host unreachable.
Reply from 10.0.0.1: Destination host unreachable.

Ping statistics for 40.0.0.10:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

PC>
```

```
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

S    10.0.0.0/8 [1/0] via 30.0.0.1
C    30.0.0.0/8 is directly connected, Serial2/0
C    40.0.0.0/8 is directly connected, FastEthernet0/0
Router#
```

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Router0

Physical Config CLI

### IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

Router#config terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#ip route 40.0.0.0 255.0.0.0 30.0.0.2
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

C    10.0.0.0/8 is directly connected, FastEthernet0/0
C    20.0.0.0/8 is directly connected, FastEthernet1/0
C    30.0.0.0/8 is directly connected, Serial2/0
S    40.0.0.0/8 [1/0] via 30.0.0.2
Router#
```

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