Pooja Srinivasan
Sec:- B USN- 1BM18CS069
Sem-5 Batch - B2

8-10-20

Lab-3

Expt: ~~Routing~~ Configuring IP address to routers in Packet tracer. Explore the following ping messages Ping response, Dest unreachable, Req timed out & Reply

What is request time out command in ping response?
time in which comp has to responded ~~unreach msg sent you~~

→ Every interface should have unique ip address

Create topology & configure ips

1st response :- destination host unreachable ↳ the ping is btw PC-0 to ping 20.0.0.1

2nd response :- reply recieved ↳ ping 20.0.0.2

3rd response :- " ↳ ping 20.0.0.1

4th response :- request timed out

once again same ip request timed out

host address

we have diff networks configured in a topology we are sending ping msgs to diff networks & don't know anything abt the network

Commands

show ip route

↳ indicates networks directly connected. If we send packets to networks not connected to this router the router has no info abt the other network hence we get msg "destination host unreachable"

u can statically add other networks to the router

enable

ip route destinate_ip network, subnetmask next hop address/ next node

↳ pass through this to reach destination

here ip route 30.0.0.1 255.0.0.0 20.0.0.2

ip route 40.0.0.0 255.0.0.0 20.0.0.2

Learning Outcomes

→ Saw the following ping messages :- destination host unreachable, request time out etc

→ Learnt to statically add other networks to a router

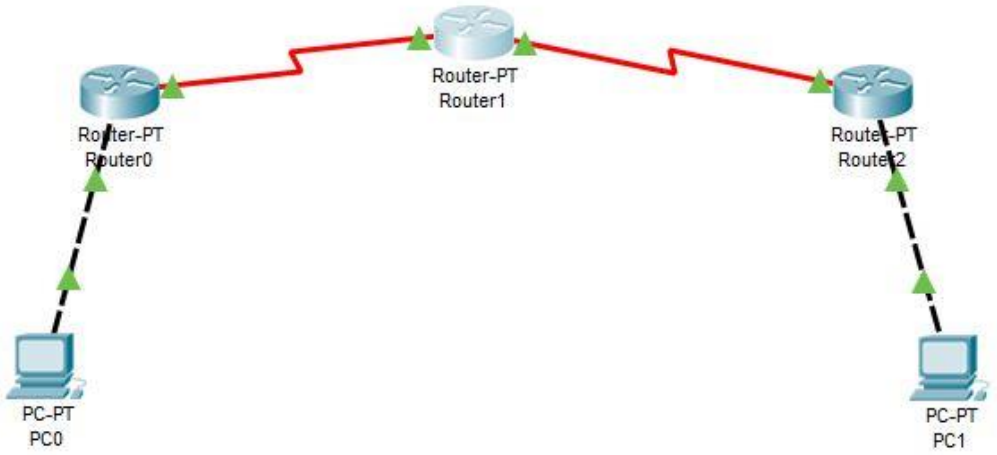
→ We saw that if we send packets to a network that is not connected to our router or the router has no information about the router then we get a message "destination host unreachable"

→ A request time out is a command or responce received when computer sent a message is sent to comp but comp was not responed

→ Ping is a request command

→ Every Inteface have a unique IP address

Network Topology

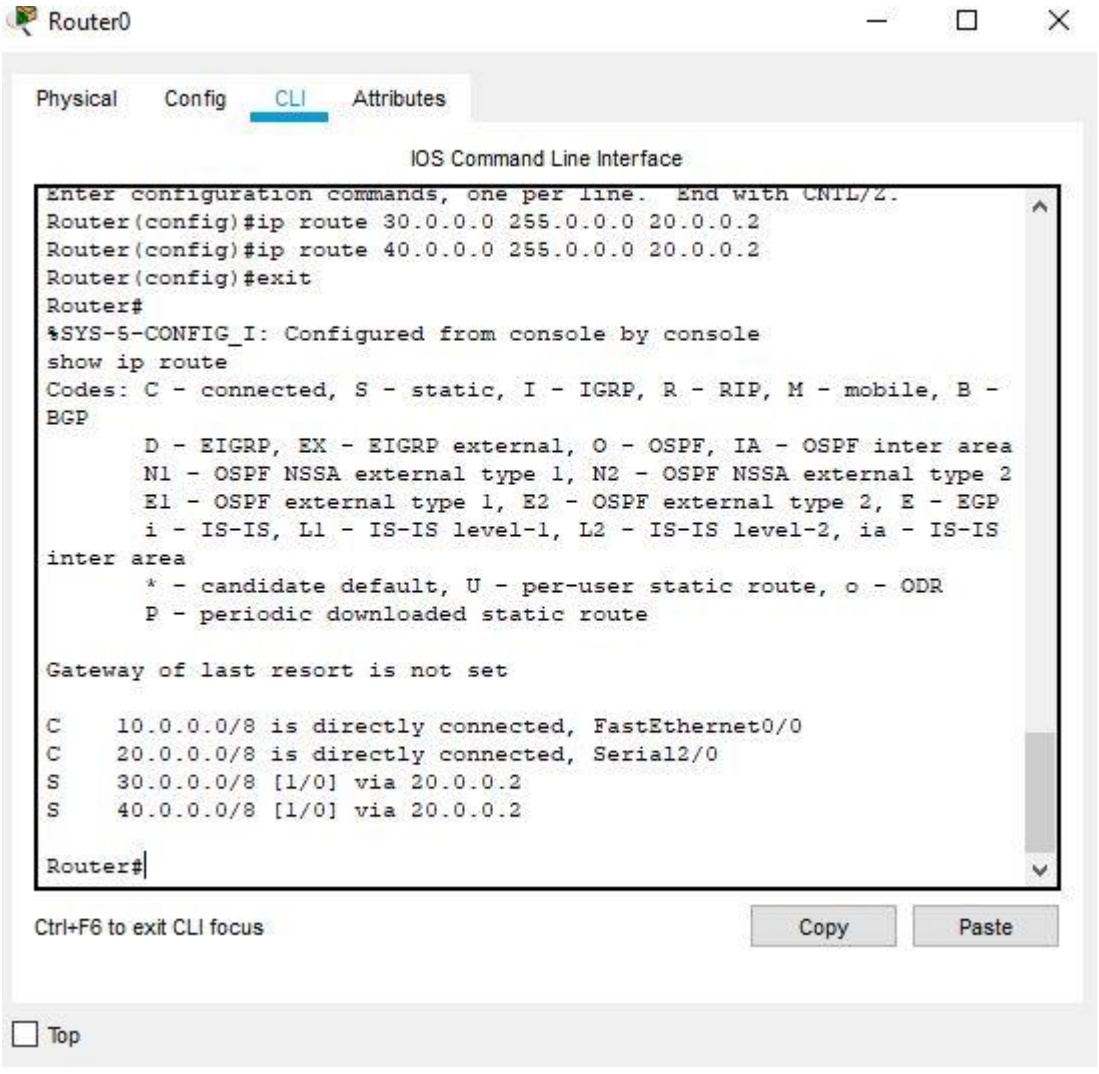


Before assigning static adding networks to the router the ping responses received:

```
Packet Tracer PC Command Line 1.0
C:\>ping 40.0.0.1

Pinging 40.0.0.1 with 32 bytes of data:

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

Ping statistics for 40.0.0.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 10.0.0.1

Pinging 10.0.0.1 with 32 bytes of data:

Reply from 10.0.0.1: bytes=32 time<1ms TTL=255
Reply from 10.0.0.1: bytes=32 time<1ms TTL=255
Reply from 10.0.0.1: bytes=32 time<1ms TTL=255
Reply from 10.0.0.1: bytes=32 time<1ms TTL=255

Ping statistics for 10.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

```
C:\>ping 20.0.0.1

Pinging 20.0.0.1 with 32 bytes of data:

Reply from 20.0.0.1: bytes=32 time=1ms TTL=255
Reply from 20.0.0.1: bytes=32 time<1ms TTL=255
Reply from 20.0.0.1: bytes=32 time<1ms TTL=255
Reply from 20.0.0.1: bytes=32 time<1ms TTL=255

Ping statistics for 20.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 20.0.0.2

Pinging 20.0.0.2 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 20.0.0.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 20.0.0.2

Pinging 20.0.0.2 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 20.0.0.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

Statically assigning ip address to the routers:



Router1

Physical Config CLI Attributes

IOS Command Line Interface

```
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#ip route 10.0.0.0 255.0.0.0 20.0.0.1
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
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

S    10.0.0.0/8 [1/0] via 20.0.0.1
C    20.0.0.0/8 is directly connected, Serial2/0
C    30.0.0.0/8 is directly connected, Serial3/0
S    40.0.0.0/8 [1/0] via 30.0.0.2

Router#
```

Ctrl+F6 to exit CLI focus Copy Paste

Top

Router2

Physical Config CLI Attributes

IOS Command Line Interface

```
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#ip route 20.0.0.0 255.0.0.0 30.0.0.1
Router(config)#ip route 10.0.0.0 255.0.0.0 30.0.0.1
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
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

S    10.0.0.0/8 [1/0] via 30.0.0.1
S    20.0.0.0/8 [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#
```

Ctrl+F6 to exit CLI focus Copy Paste

Top

After assigning static adding networks to the router the ping responses received: