EXP-3

VENKATESHA PRASADA CH

1BM18CS124

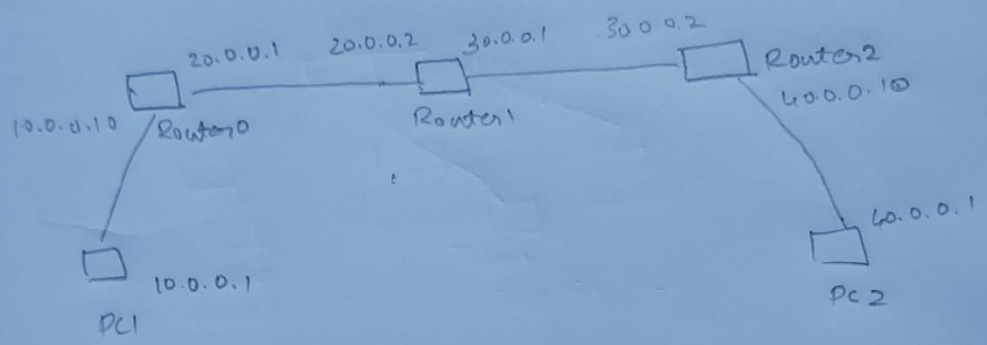
EXP 3

Venkatesha Prasada CH
1BM18CS124

Question: Demonstrate IP Routing using 3 routers

Aim: Connect 2 different networks using 3 routers

Topology:



Procedure:

1) Connect the PCs to routers as shown above
2) Set IP & default gateway for each PCs
3) Connect the routers to each other using Serial Interface
4) Configure IP Routing of each routers.

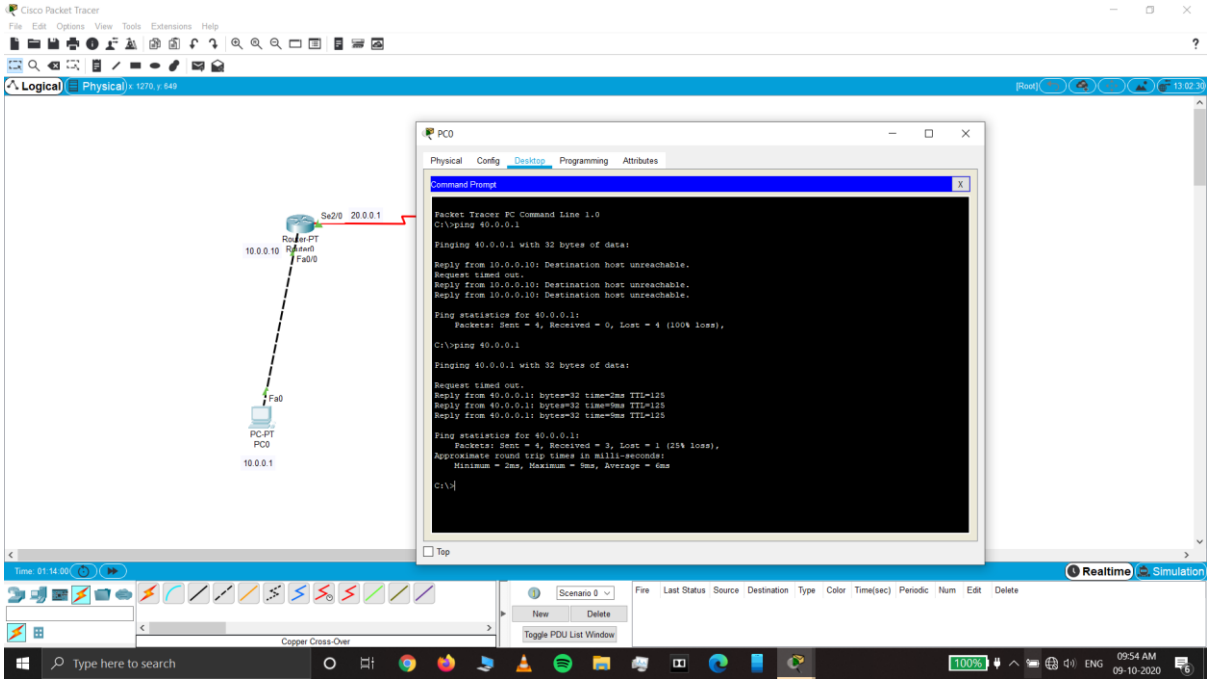
CLI commands:

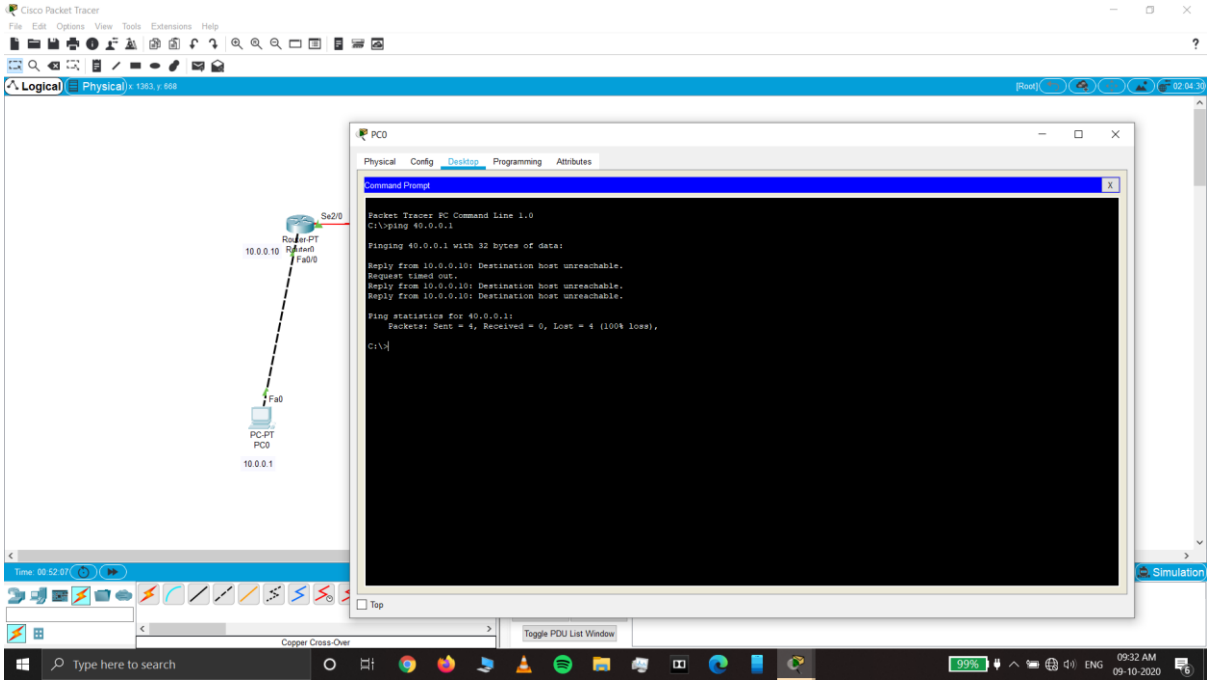
1) enable
2) config t
3) interface fastethernet 0/0
4) ip address 10.0.0.10 255.0.0.0
5) ~~intert~~ no shut
6) interface serial 2/0
7) ip address 20.0.0.1 255.0.0.0
8) no shut
9) show ip route
10) ip route 30.0.0.0 255.0.0.0 20.0.0.2

observation: 1) when ping from Pc1 to Pc2 without configuring the ip route, Destination host unreachable

2) After ip routing the above problem solved

SCREEN SHOTS:





Router0

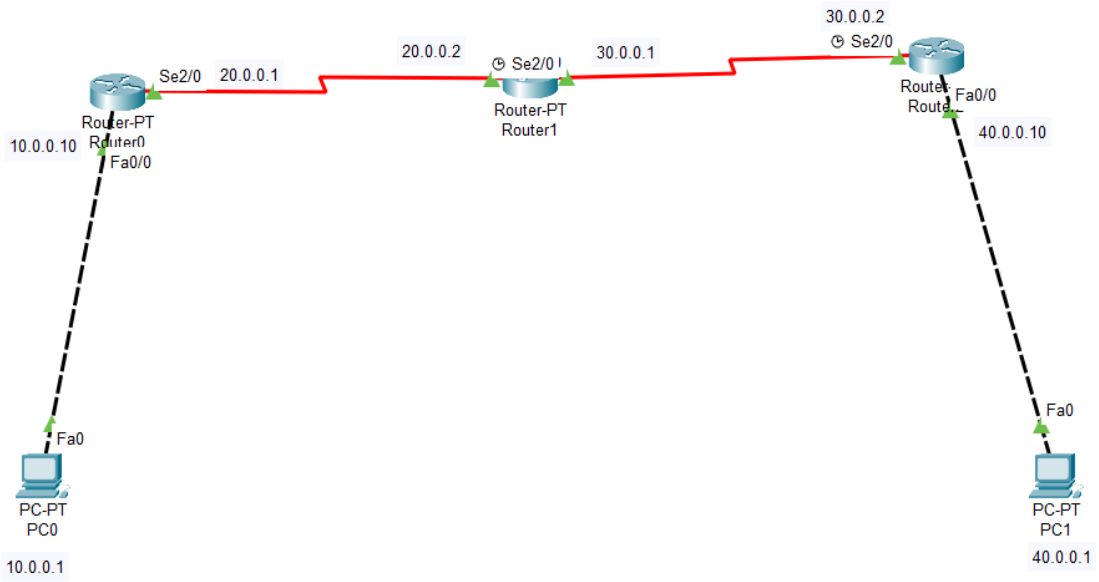
Physical Config CLI Attributes

IOS Command Line Int

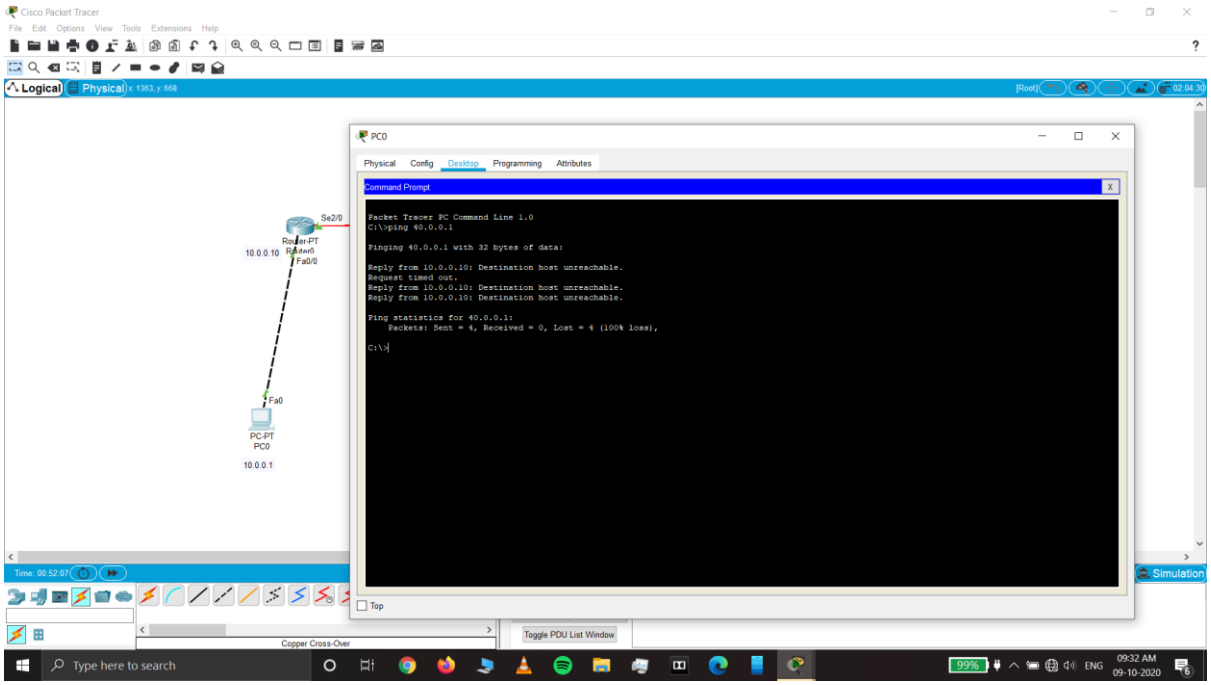
```
          cisco Systems, Inc.
          170 West Tasman Drive
          San Jose, California 95134-1706



Cisco Internetwork Operating System Software
IOS (tm) PT1000 Software (PT1000-I-M), Version 12.2(28), RELEASE SOFTWARE (fc5)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2005 by cisco Systems, Inc.
Compiled Wed 27-Apr-04 19:01 by miwang

PT 1001 (PTSC2005) processor (revision 0x200) with 60416K/5120K bytes of memory
.
Processor board ID PT0123 (0123)
PT2005 processor: part number 0, mask 01
Bridging software.
X.25 software, Version 3.0.0.
4 FastEthernet/IEEE 802.3 interface(s)
2 Low-speed serial(sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

Press RETURN to get started!


%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

%LINK-5-CHANGED: Interface Serial2/0, changed state to up

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


Router>
Router>enable
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, Serial2/0
S    30.0.0.0/8 [1/0] via 20.0.0.2
S    40.0.0.0/8 [1/0] via 20.0.0.2

Router#
```

Ctrl+F6 to exit CLI focus

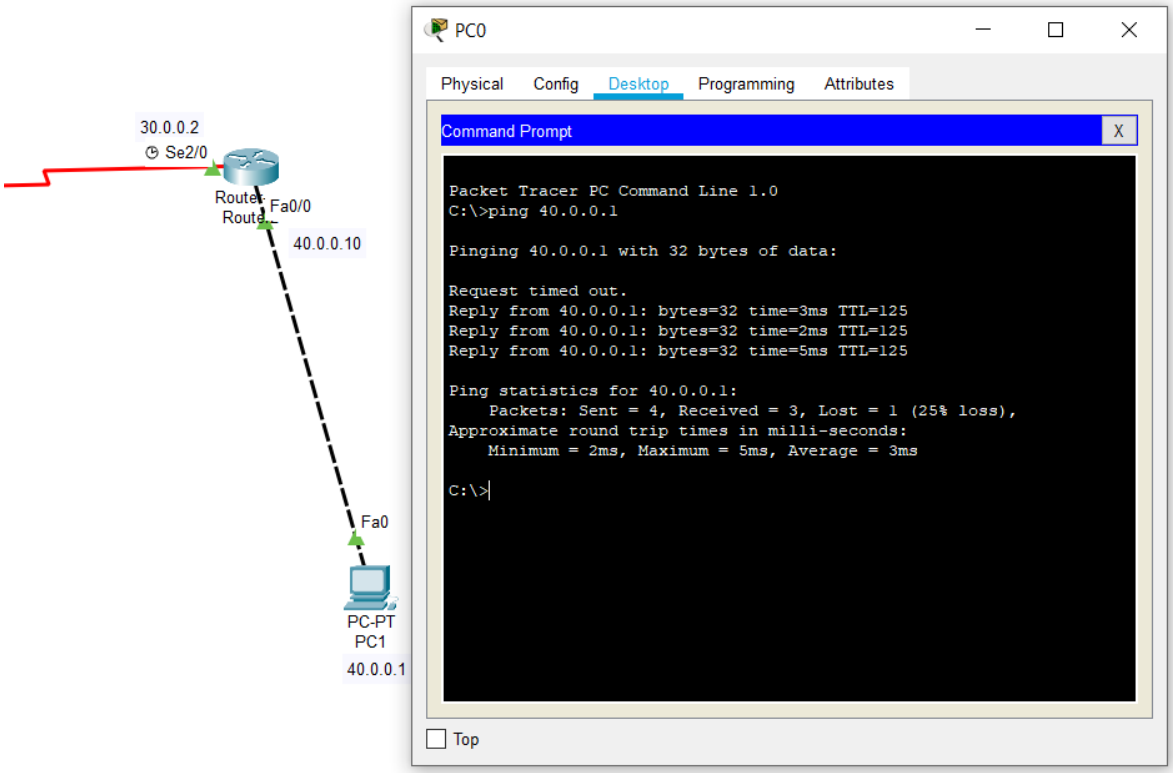
TOPOLOGY:



PING:



RESULTS:


30.0.0.2
Se2/0
Router
Router
Fa0/0
40.0.0.10
Fa0
PC-PT
PC1
40.0.0.1
PC0
Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
Packet Tracer PC Command Line 1.0
C:\>ping 40.0.0.1
Pinging 40.0.0.1 with 32 bytes of data:
Request timed out.
Reply from 40.0.0.1: bytes=32 time=3ms TTL=125
Reply from 40.0.0.1: bytes=32 time=2ms TTL=125
Reply from 40.0.0.1: bytes=32 time=5ms TTL=125
Ping statistics for 40.0.0.1:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 2ms, Maximum = 5ms, Average = 3ms
C:\>
Top