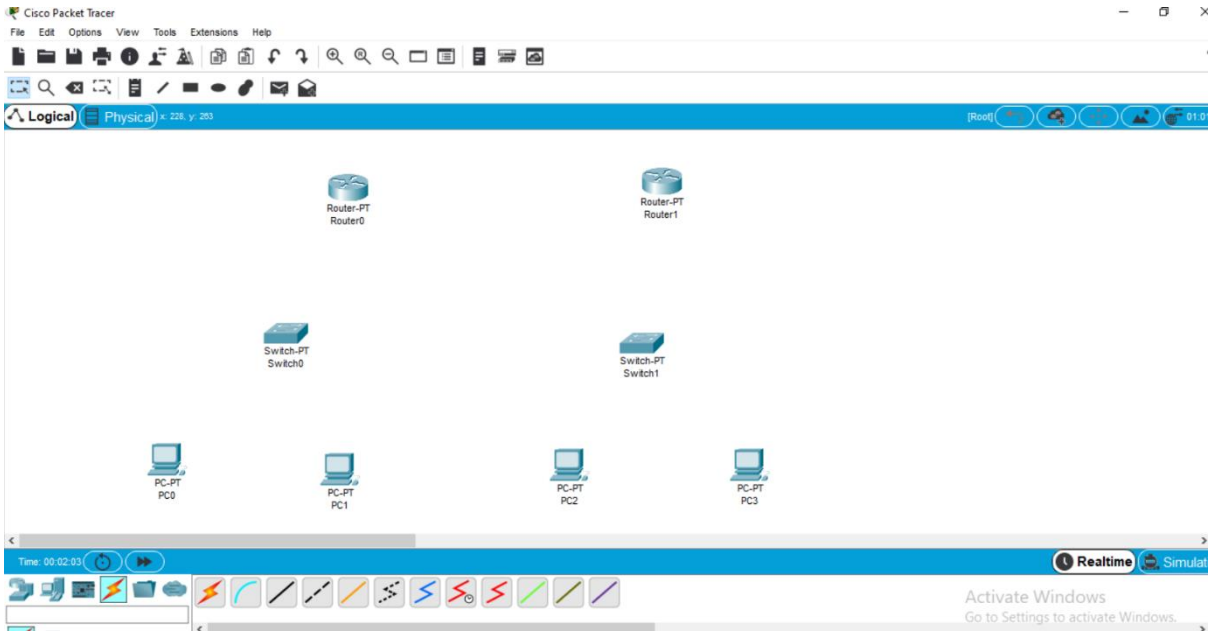
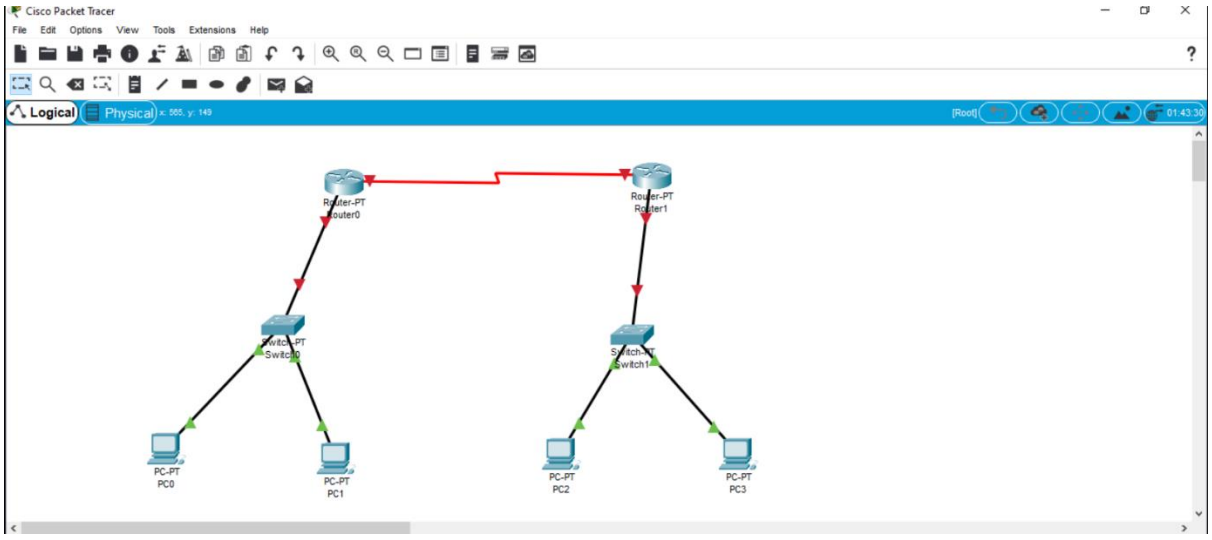
CISCO PACKET TRACER LAB -1 :

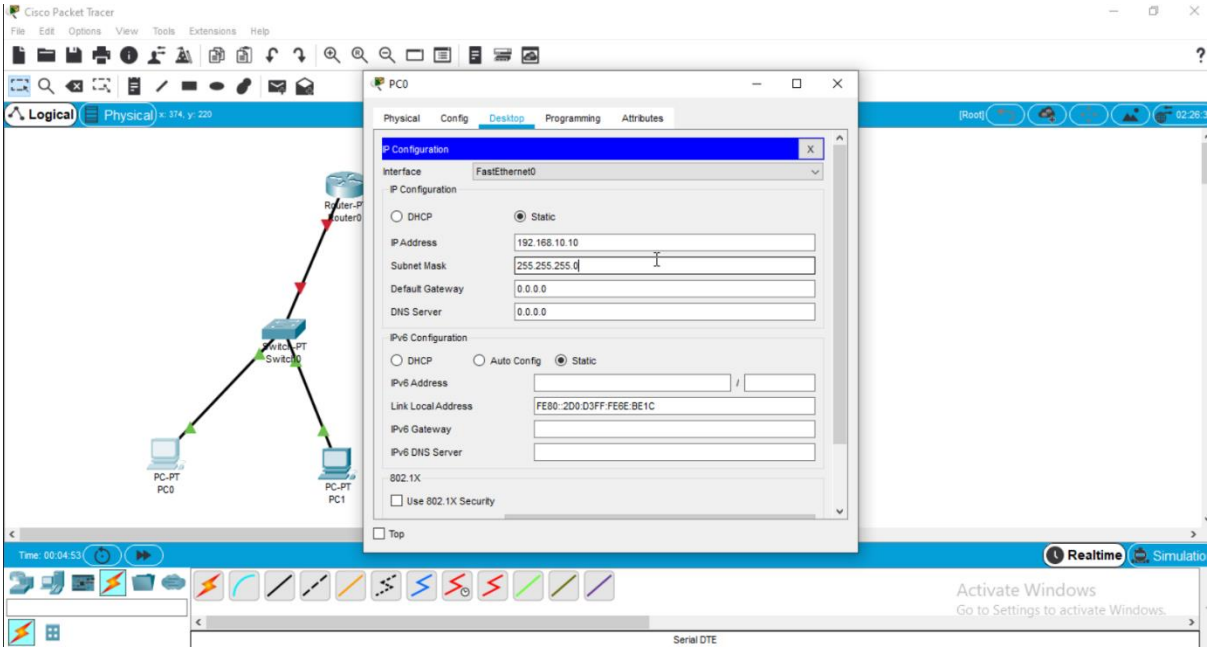
In this lab I explain how we can ping **PC** of one network to **ROUTER** of another network.

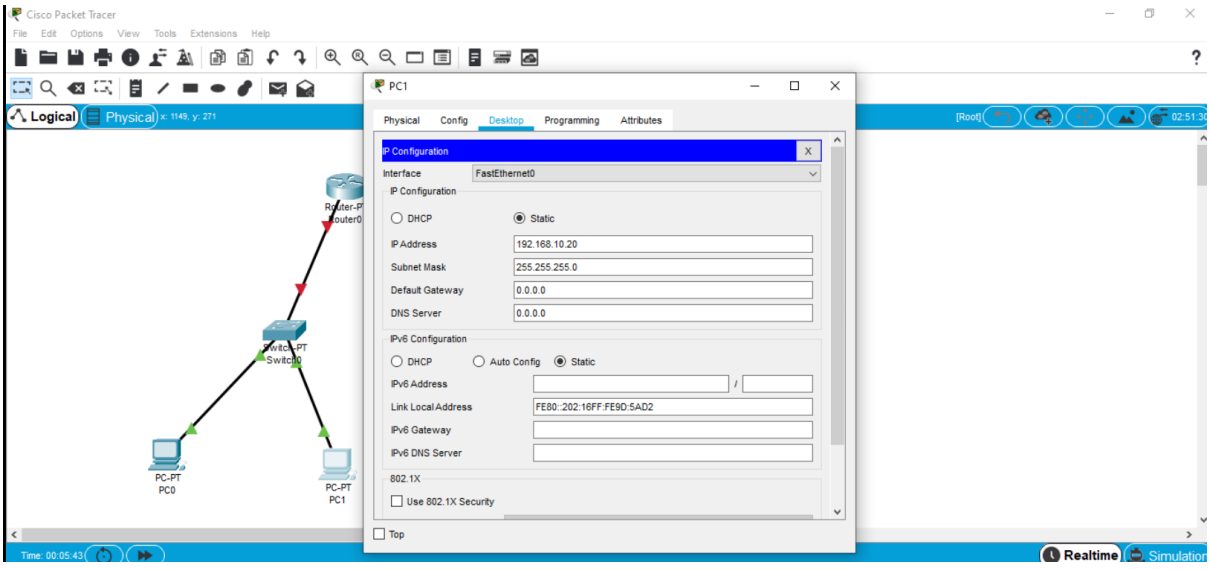
Note :- I insert page as according to the process.

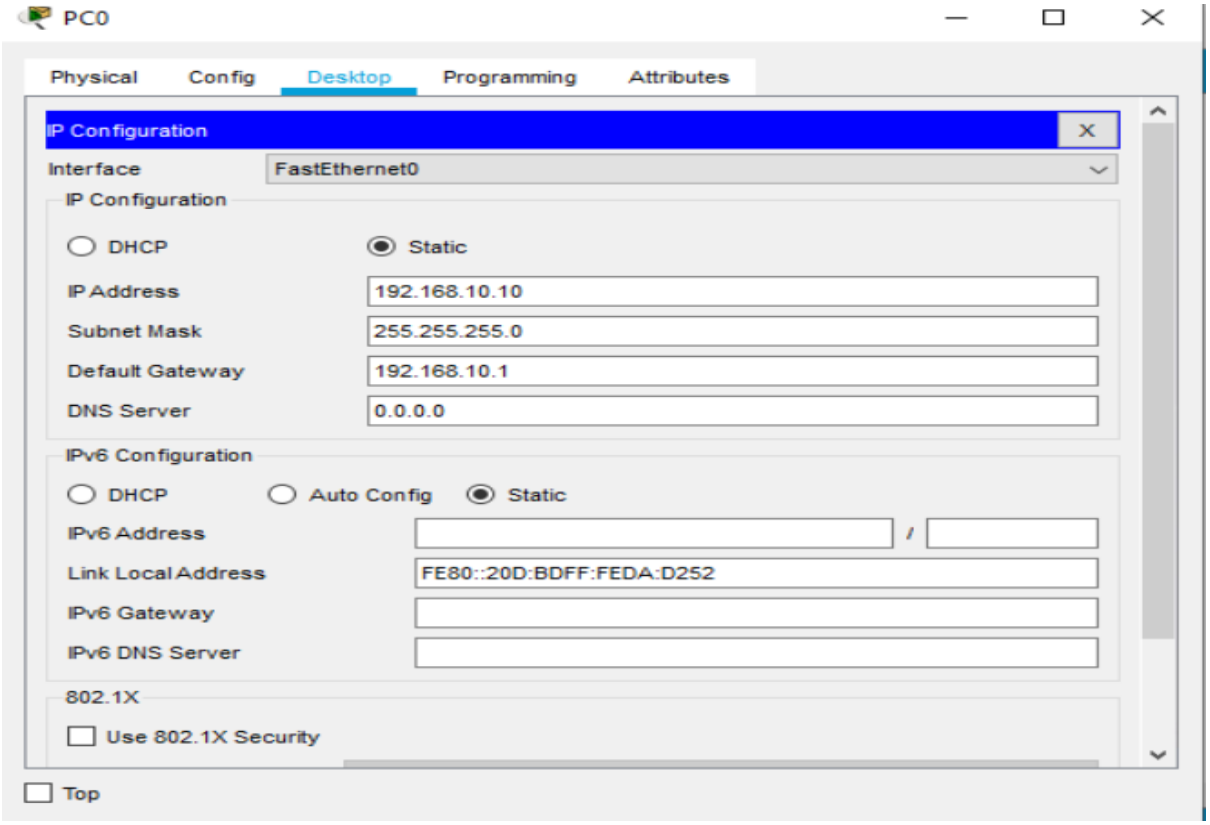
1. First I set the diagram in cisco packet tracer .
2. Then I give IP address to all the pc.
3. Then I convert red light sign to green light in between switch and router for message passing.
4. Then I also convert red light to green in between router for message passing .
5. The above 3 and 4 point done by the help of CLI command.
6. Then I ping pc0 to router1.

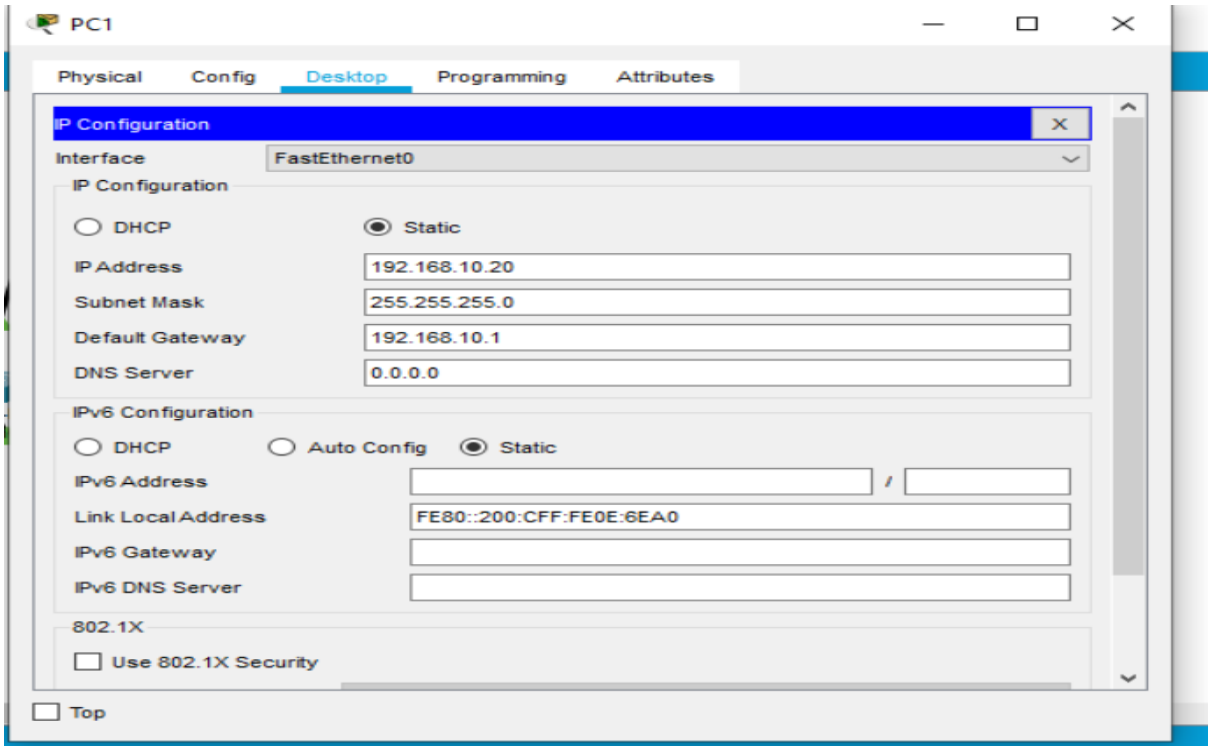


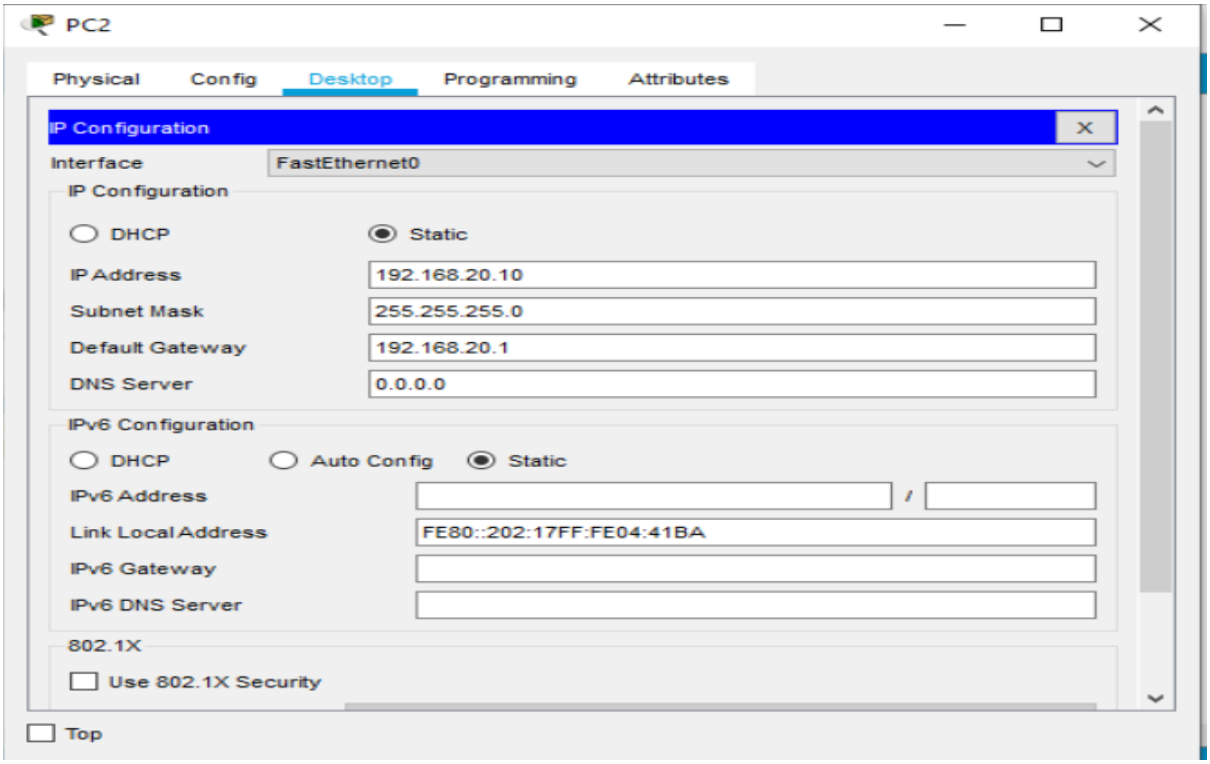


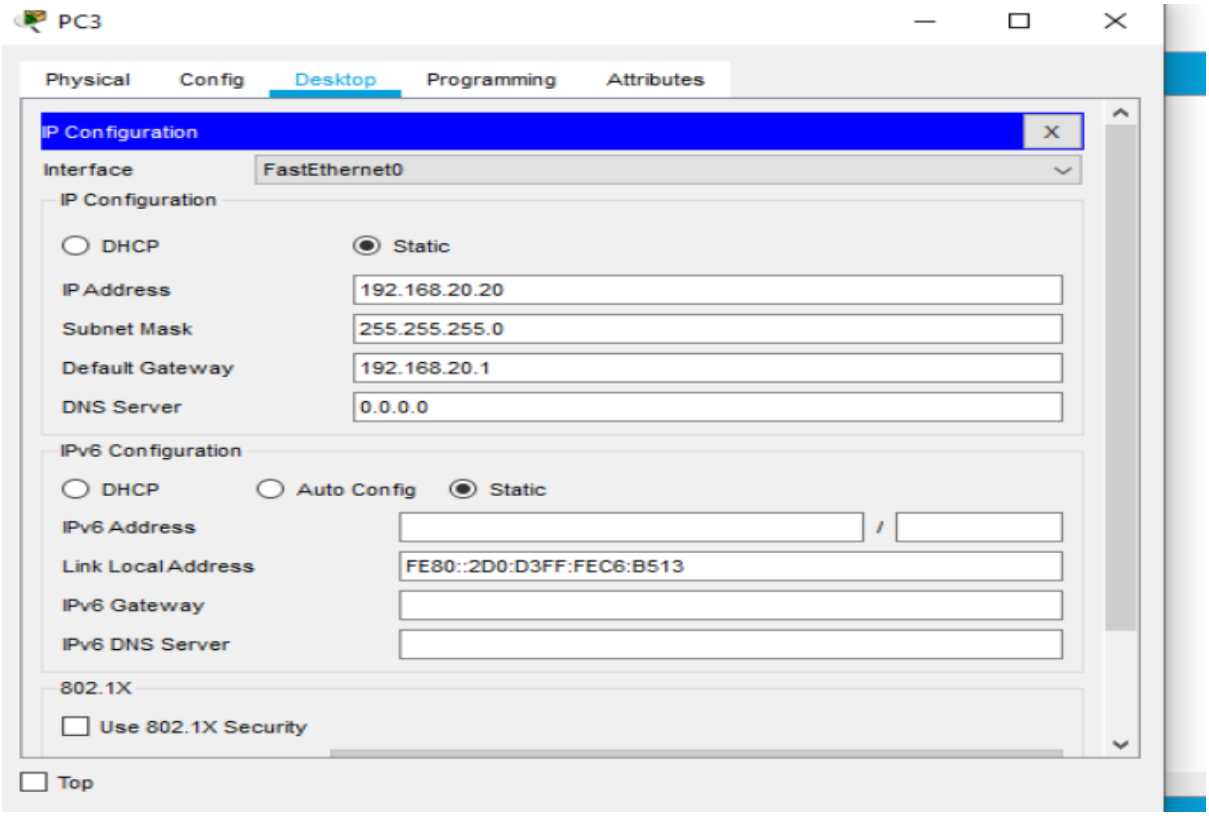

Cisco Packet Tracer
PC0
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IP Address
192.168.10.10
Subnet Mask
255.255.255.0
Default Gateway
0.0.0.0
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::2D0:D3FF:FE6E:BE1C
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Top
Logical
Physical
PC-PT PC0
PC-PT PC1
Realtime
Serial DTE

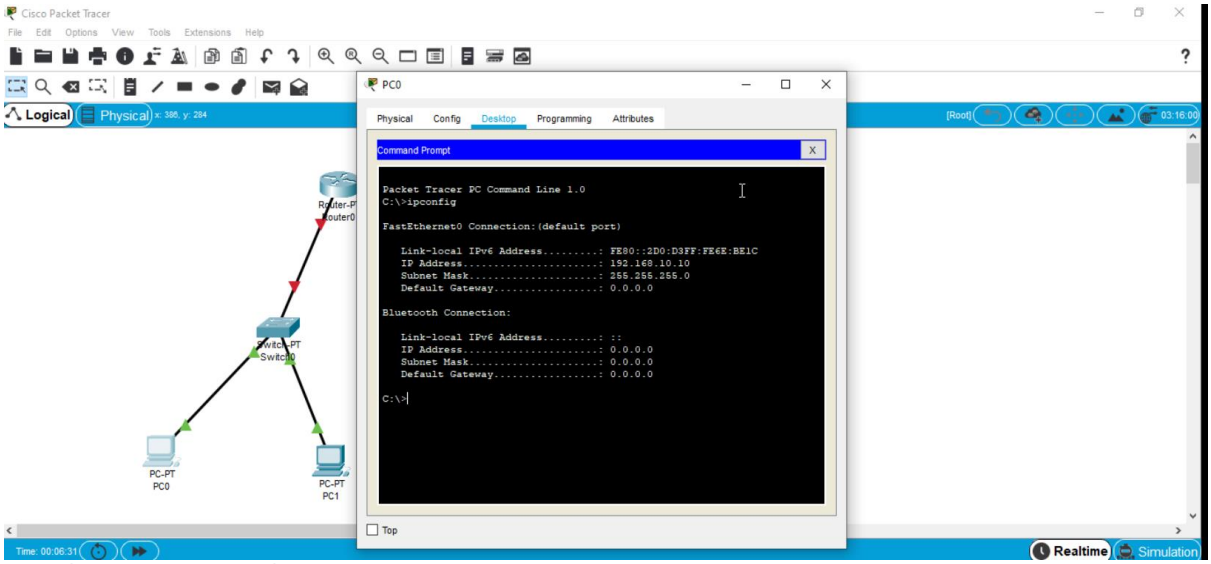

Cisco Packet Tracer
PC1
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IP Address
192.168.10.20
Subnet Mask
255.255.255.0
Default Gateway
0.0.0.0
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::202:16FF:FE9D:5AD2
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Top
Logical
Physical
PC-PT PC0
PC-PT PC1
Realtime

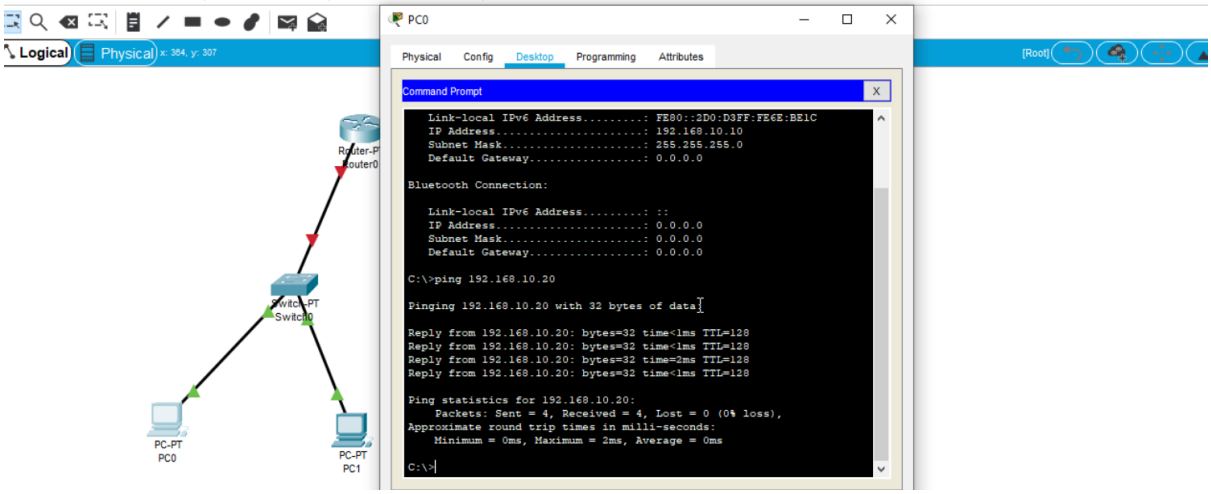

PC0
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IP Address
192.168.10.10
Subnet Mask
255.255.255.0
Default Gateway
192.168.10.1
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::20D:BDFF:FEDA:D252
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Top

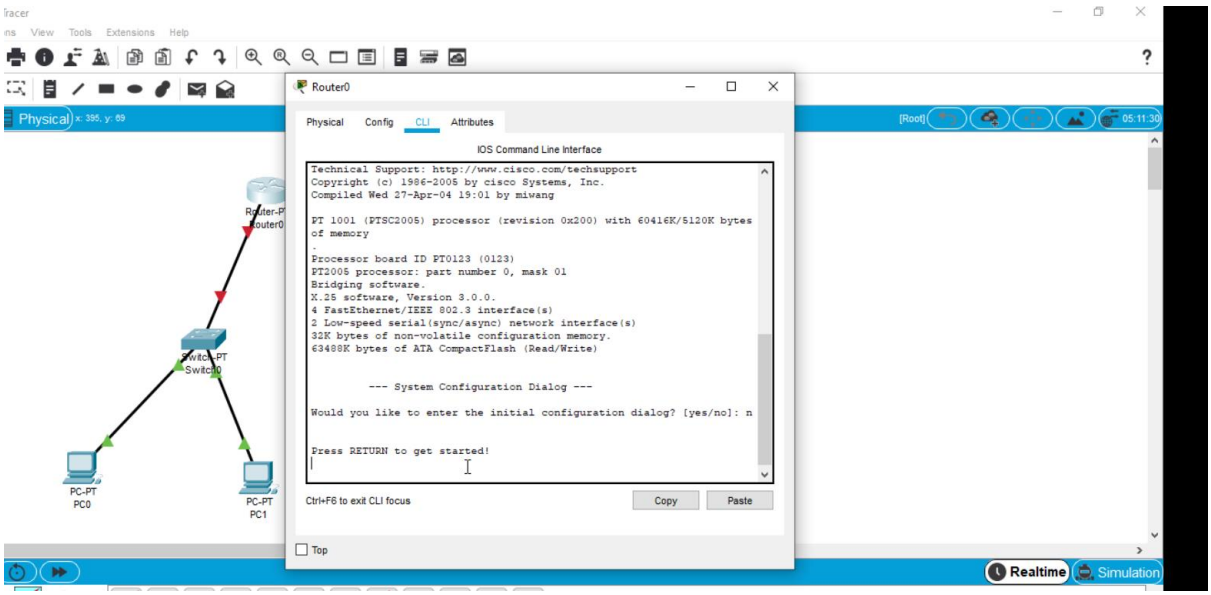

PC1
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IP Address
192.168.10.20
Subnet Mask
255.255.255.0
Default Gateway
192.168.10.1
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::200:CFF:FE0E:6EA0
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Top

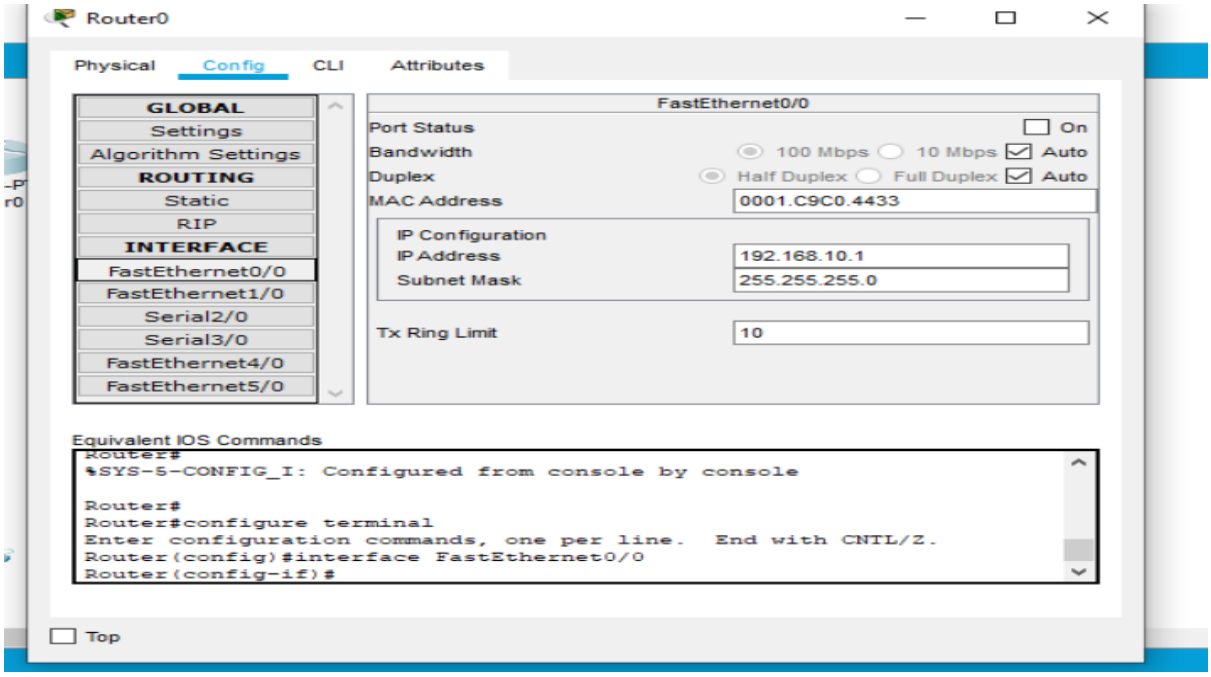

PC2
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IP Address
192.168.20.10
Subnet Mask
255.255.255.0
Default Gateway
192.168.20.1
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::202:17FF:FE04:41BA
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Top


PC3
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IP Address
192.168.20.20
Subnet Mask
255.255.255.0
Default Gateway
192.168.20.1
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::2D0:D3FF:FEC6:B513
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Top


Cisco Packet Tracer
File Edit Options View Tools Extensions Help
Logical Physical
PC0
Physical Config Desktop Programming Attributes
Command Prompt
Packet Tracer PC Command Line 1.0
C:\>ipconfig
FastEthernet0 Connection:(default port)
Link-local IPv6 Address.....: FE80::2D0:D3FF:FE6E:BE1C
IP Address.....: 192.168.10.10
Subnet Mask.....: 255.255.255.0
Default Gateway.....: 0.0.0.0
Bluetooth Connection:
Link-local IPv6 Address.....: ::
IP Address.....: 0.0.0.0
Subnet Mask.....: 0.0.0.0
Default Gateway.....: 0.0.0.0
C:\>
Top
Router-PT Router0
Switch-PT Switch0
PC-PT PC0
PC-PT PC1
Realtime Simulation


Logical Physical
PC0
Physical Config Desktop Programming Attributes
Command Prompt
Link-local IPv6 Address.....: FE80::2D0:D3FF:FE6E:BE1C
IP Address.....: 192.168.10.10
Subnet Mask.....: 255.255.255.0
Default Gateway.....: 0.0.0.0
Bluetooth Connection:
Link-local IPv6 Address.....: ::
IP Address.....: 0.0.0.0
Subnet Mask.....: 0.0.0.0
Default Gateway.....: 0.0.0.0
C:\>ping 192.168.10.20
Pinging 192.168.10.20 with 32 bytes of data:
Reply from 192.168.10.20: bytes=32 time<1ms TTL=128
Reply from 192.168.10.20: bytes=32 time<1ms TTL=128
Reply from 192.168.10.20: bytes=32 time=2ms TTL=128
Reply from 192.168.10.20: bytes=32 time<1ms TTL=128
Ping statistics for 192.168.10.20:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 2ms, Average = 0ms
C:\>
Router-PT Router0
Switch-PT Switch0
PC-PT PC0
PC-PT PC1


Physical
Router0
Physical Config CLI Attributes
IOS Command Line Interface
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)
--- System Configuration Dialog ---
Would you like to enter the initial configuration dialog? [yes/no]: n
Press RETURN to get started!
Ctrl+F6 to exit CLI focus
Copy
Paste
Top
Router-PT Router0
Switch-PT Switch0
PC-PT PC0
PC-PT PC1
Realtime Simulation

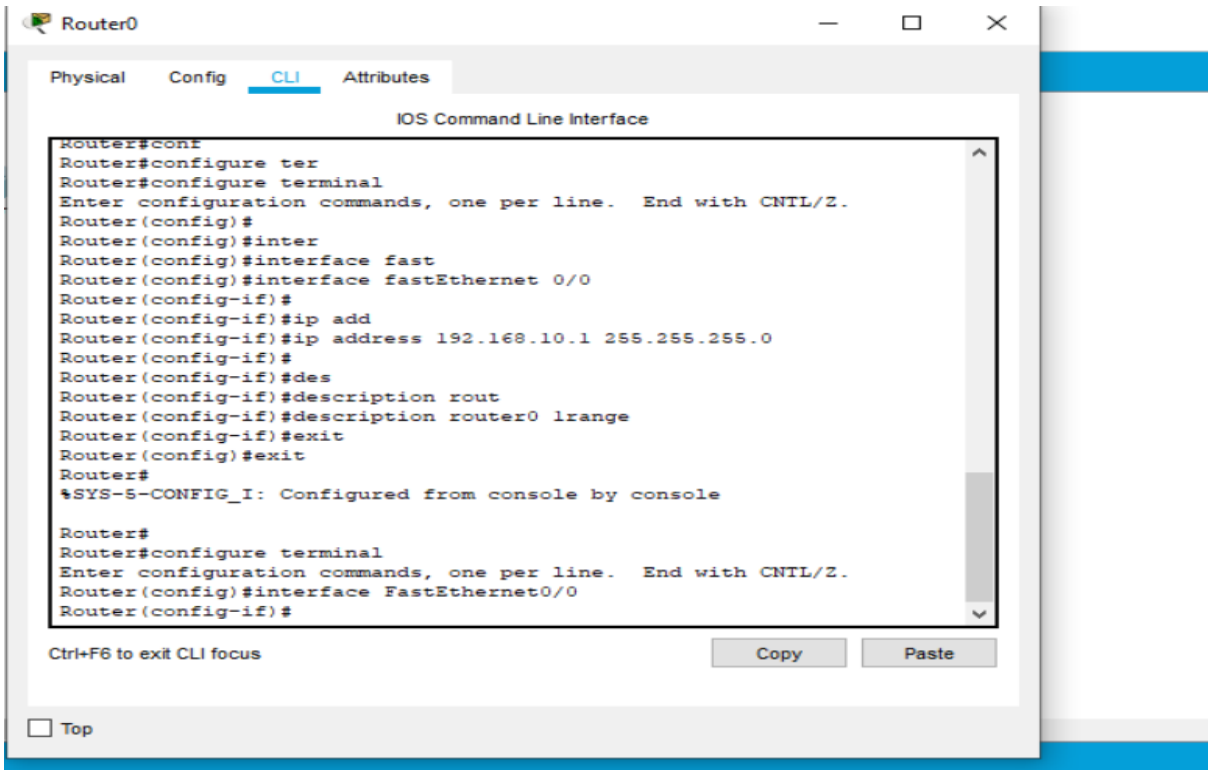


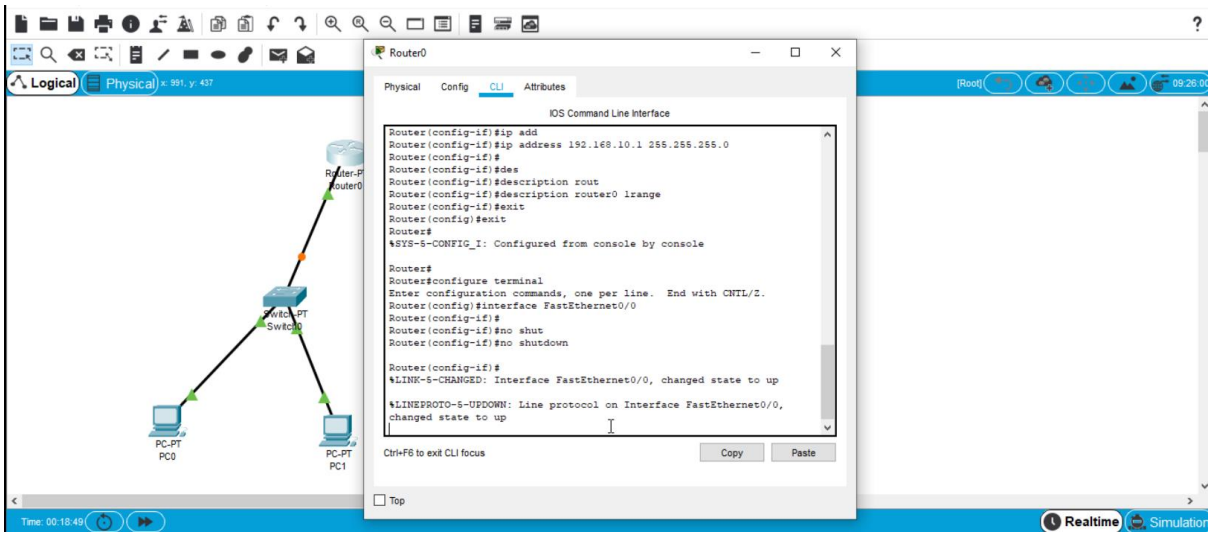

```
Router>
Router>enable
Router#
Router#conf
Router#configure ter
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#
Router(config)#inter
Router(config)#interface fast
Router(config)#interface fastEthernet 0/0
Router(config-if)#
Router(config-if)#ip add
Router(config-if)#ip address 192.168.10.1 255.255.255.0
Router(config-if)#
Router(config-if)#des
Router(config-if)#description rout
Router(config-if)#description router0 lrange
Router(config-if)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#
```

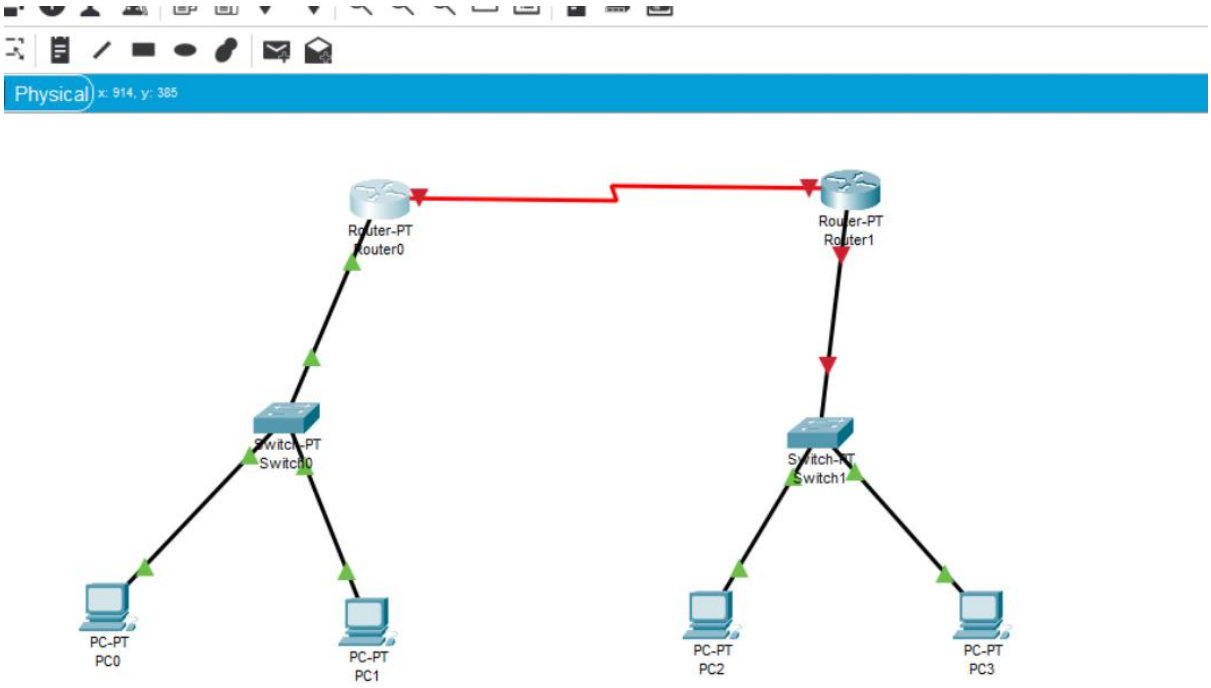
Ctrl+F6 to exit CLI focus

Copy Paste

Top


Router0
Physical
Config
CLI
Attributes
IOS Command Line Interface
Router#conf
Router#configure ter
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#
Router(config)#inter
Router(config)#interface fast
Router(config)#interface fastEthernet 0/0
Router(config-if)#
Router(config-if)#ip add
Router(config-if)#ip address 192.168.10.1 255.255.255.0
Router(config-if)#
Router(config-if)#des
Router(config-if)#description rout
Router(config-if)#description router0 lrange
Router(config-if)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


Logical
Physical
Router0
Physical
Config
CLI
Attributes
IOS Command Line Interface
Router(config-if)#ip add
Router(config-if)#ip address 192.168.10.1 255.255.255.0
Router(config-if)#
Router(config-if)#des
Router(config-if)#description rout
Router(config-if)#description router0 lrange
Router(config-if)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#no shut
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0,
changed state to up
Ctrl+F6 to exit CLI focus
Copy
Paste
Top
Router-PT
Router0
Switch-PT
Switch0
PC-PT
PC0
PC-PT
PC1
Realtime
Simulation



Router0

Physical Config CLI Attributes

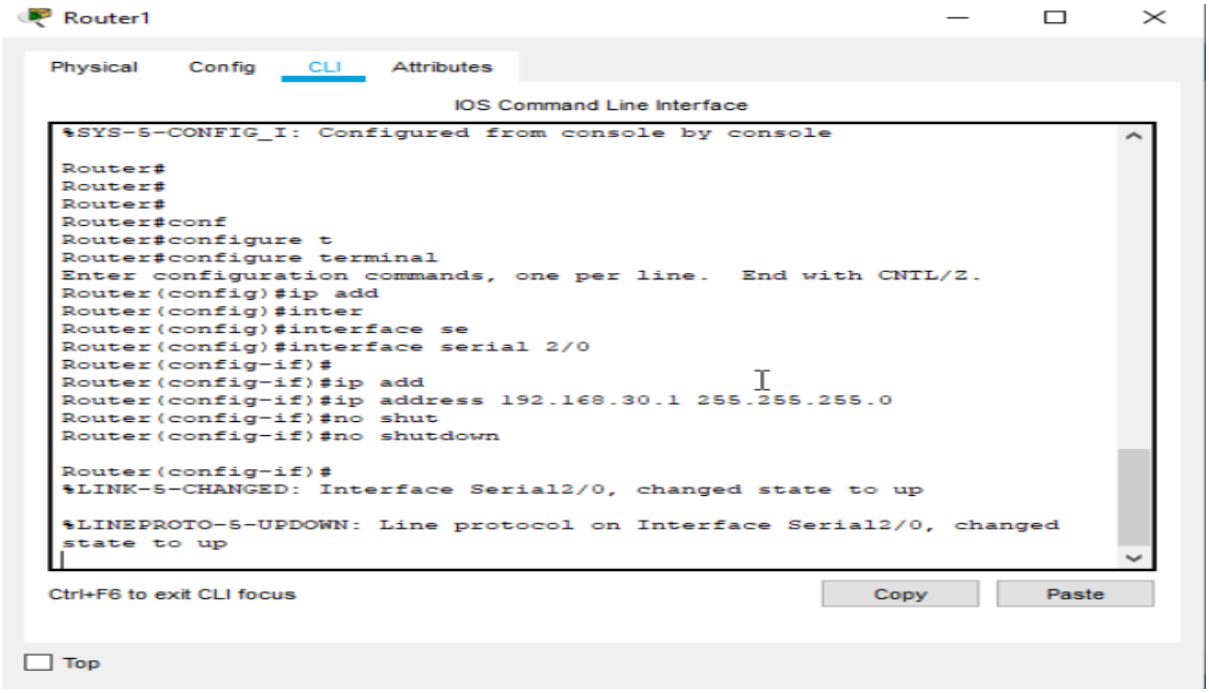
IOS Command Line Interface

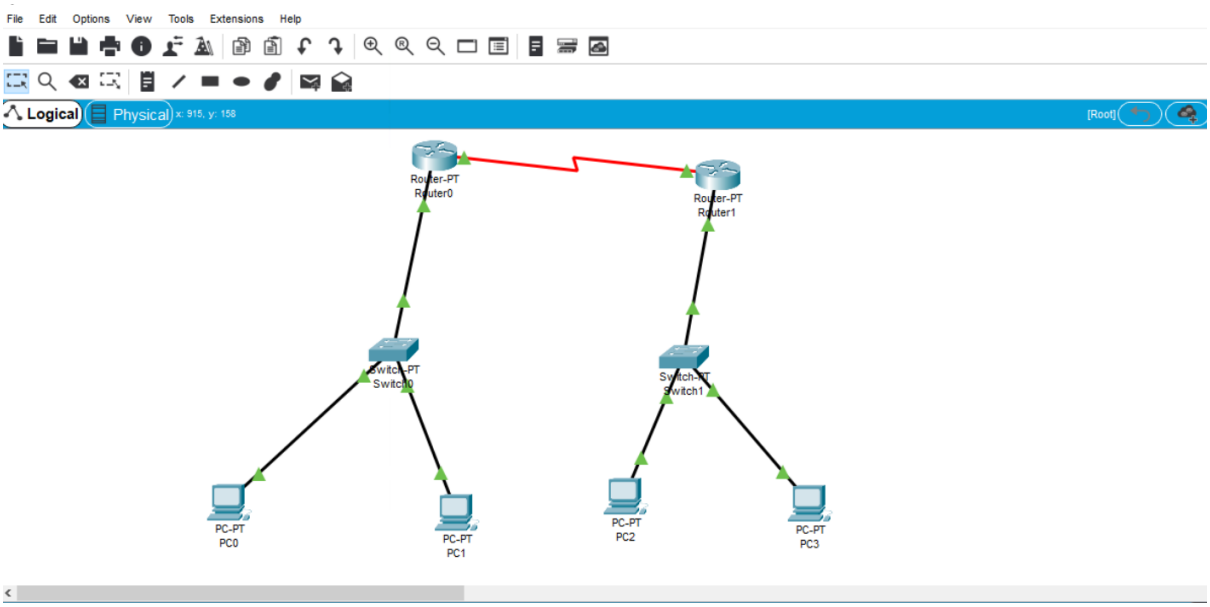
```
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#
Router(config)#
Router(config)#inte
Router(config)#interface se
Router(config)#interface serial 2/0
Router(config-if)#
Router(config-if)#
Router(config-if)#ip add
Router(config-if)#ip address 192.168.30.2 255.255.255.0
Router(config-if)#
Router(config-if)#clock rate 64000
Router(config-if)#no shu
Router(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial2/0, changed state to down
Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

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

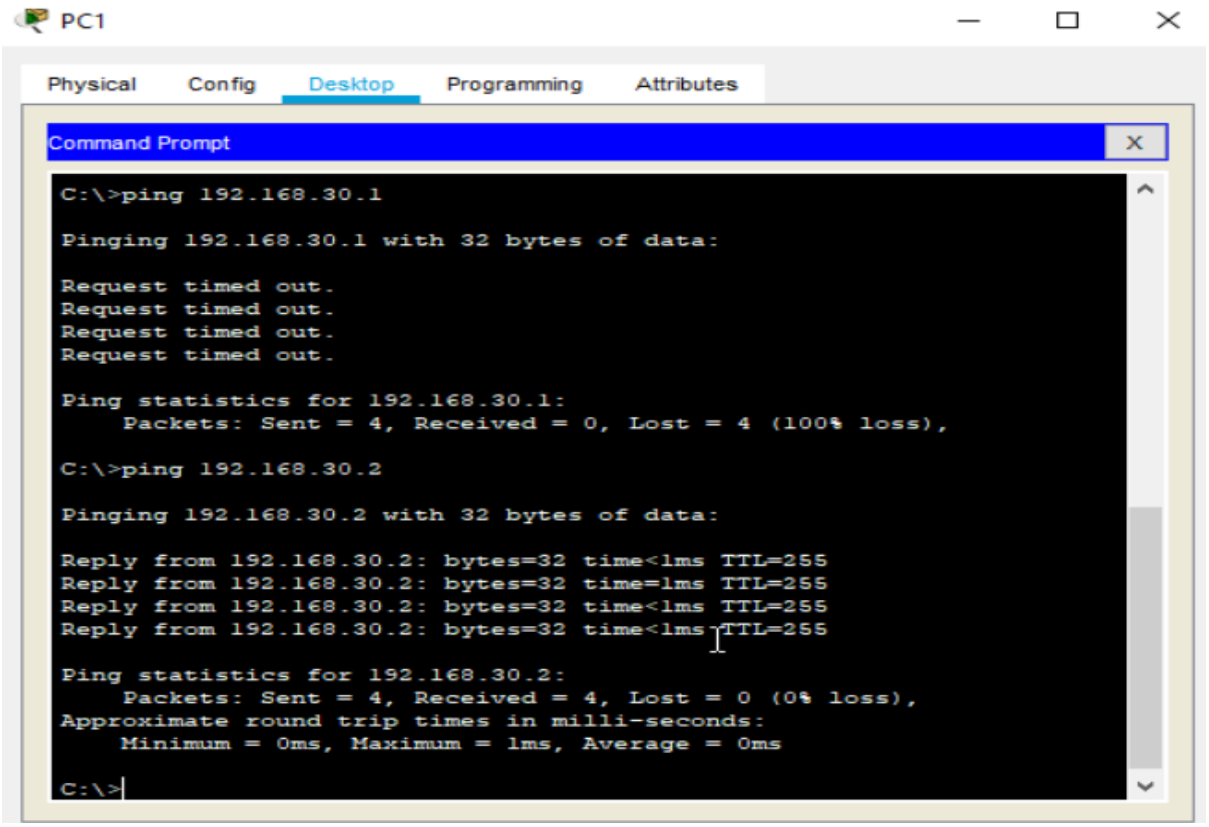
Ctrl+F6 to exit CLI focus

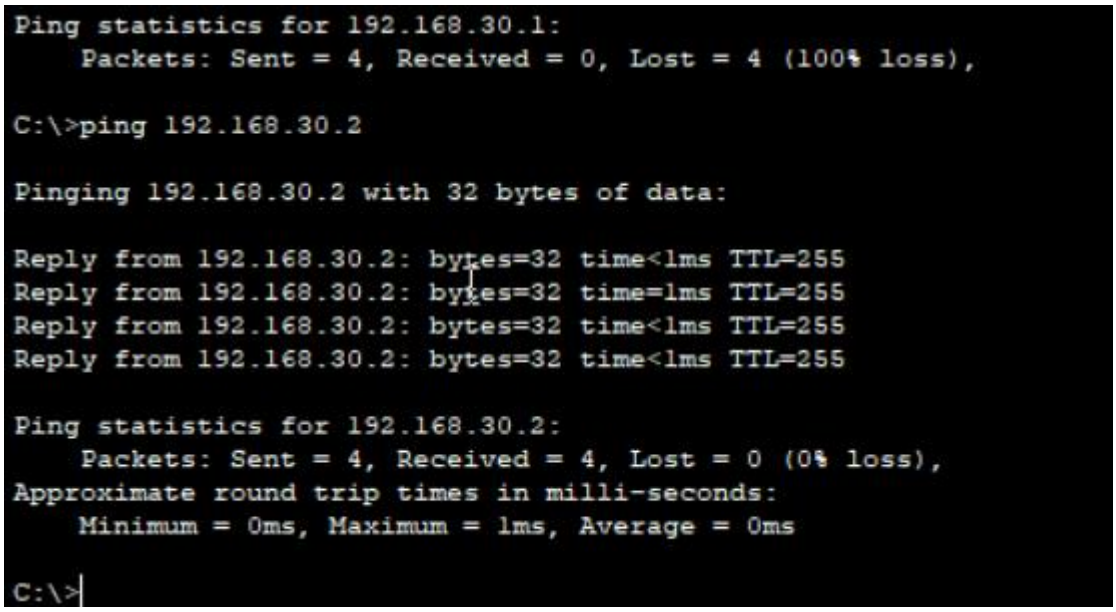
Copy Paste

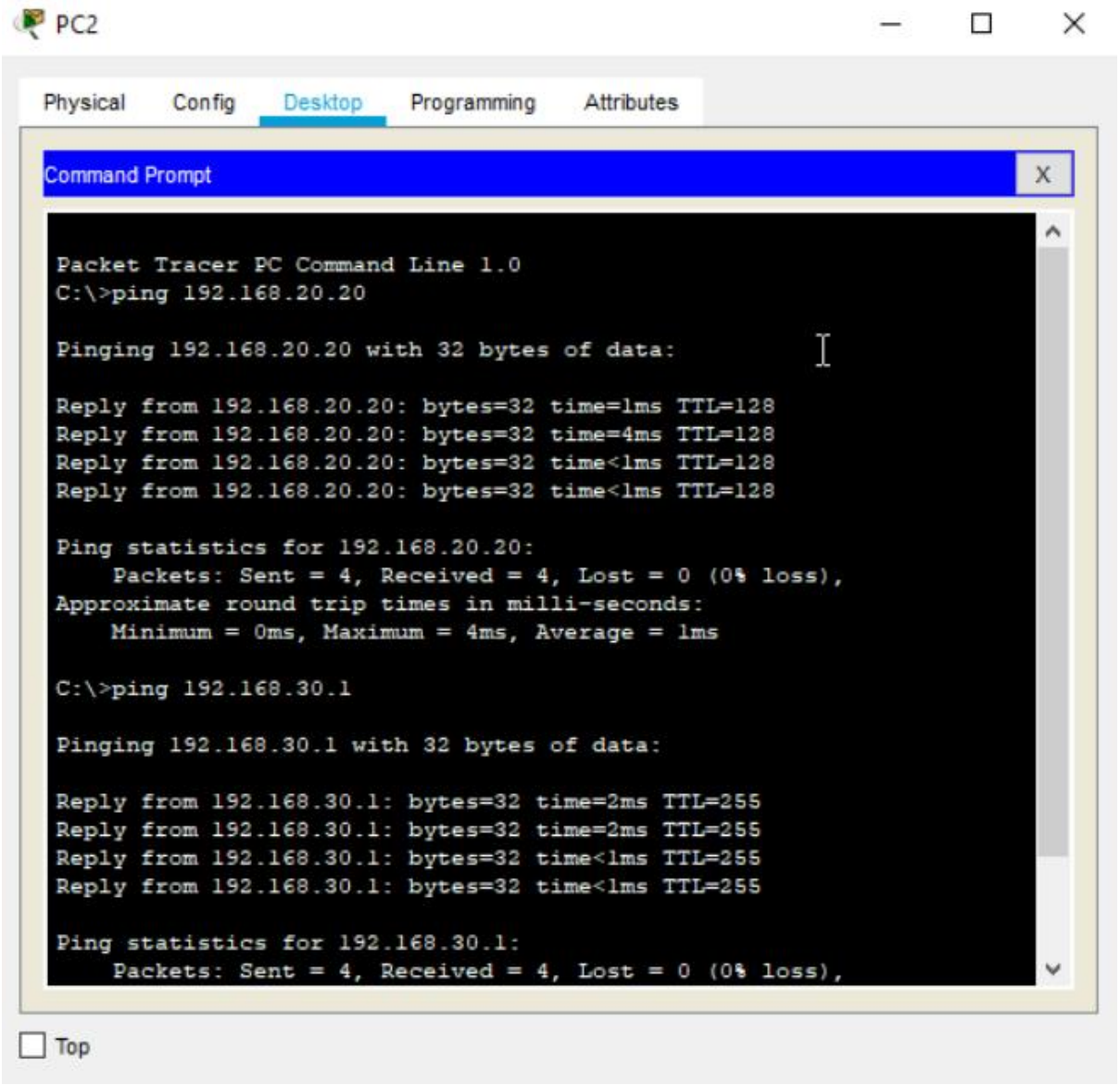
Top


Router1
Physical
Config
CLI
Attributes
IOS Command Line Interface
%SYS-5-CONFIG_I: Configured from console by console
Router#
Router#
Router#
Router#conf
Router#configure t
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip add
Router(config)#inter
Router(config)#interface se
Router(config)#interface serial 2/0
Router(config-if)#
Router(config-if)#ip add
Router(config-if)#ip address 192.168.30.1 255.255.255.0
Router(config-if)#no shut
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


File Edit Options View Tools Extensions Help
Logical
Physical
Router-PT Router0
Router-PT Router1
Switch-PT Switch0
Switch-PT Switch1
PC-PT PC0
PC-PT PC1
PC-PT PC2
PC-PT PC3


PC1
Physical
Config
Desktop
Programming
Attributes
Command Prompt
C:\>ping 192.168.30.1
Pinging 192.168.30.1 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 192.168.30.1:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>ping 192.168.30.2
Pinging 192.168.30.2 with 32 bytes of data:
Reply from 192.168.30.2: bytes=32 time<1ms TTL=255
Reply from 192.168.30.2: bytes=32 time=1ms TTL=255
Reply from 192.168.30.2: bytes=32 time<1ms TTL=255
Reply from 192.168.30.2: bytes=32 time<1ms TTL=255
Ping statistics for 192.168.30.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>


Ping statistics for 192.168.30.1:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>ping 192.168.30.2
Pinging 192.168.30.2 with 32 bytes of data:
Reply from 192.168.30.2: bytes=32 time<1ms TTL=255
Reply from 192.168.30.2: bytes=32 time=1ms TTL=255
Reply from 192.168.30.2: bytes=32 time<1ms TTL=255
Reply from 192.168.30.2: bytes=32 time<1ms TTL=255
Ping statistics for 192.168.30.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>


PC2
Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.20.20
Pinging 192.168.20.20 with 32 bytes of data:
Reply from 192.168.20.20: bytes=32 time=1ms TTL=128
Reply from 192.168.20.20: bytes=32 time=4ms TTL=128
Reply from 192.168.20.20: bytes=32 time<1ms TTL=128
Reply from 192.168.20.20: bytes=32 time<1ms TTL=128
Ping statistics for 192.168.20.20:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 4ms, Average = 1ms
C:\>ping 192.168.30.1
Pinging 192.168.30.1 with 32 bytes of data:
Reply from 192.168.30.1: bytes=32 time=2ms TTL=255
Reply from 192.168.30.1: bytes=32 time=2ms TTL=255
Reply from 192.168.30.1: bytes=32 time<1ms TTL=255
Reply from 192.168.30.1: bytes=32 time<1ms TTL=255
Ping statistics for 192.168.30.1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Top