

CEL 51, DCCN, Monsoon 2020

Lab 4: Prototyping a Network

Objective:

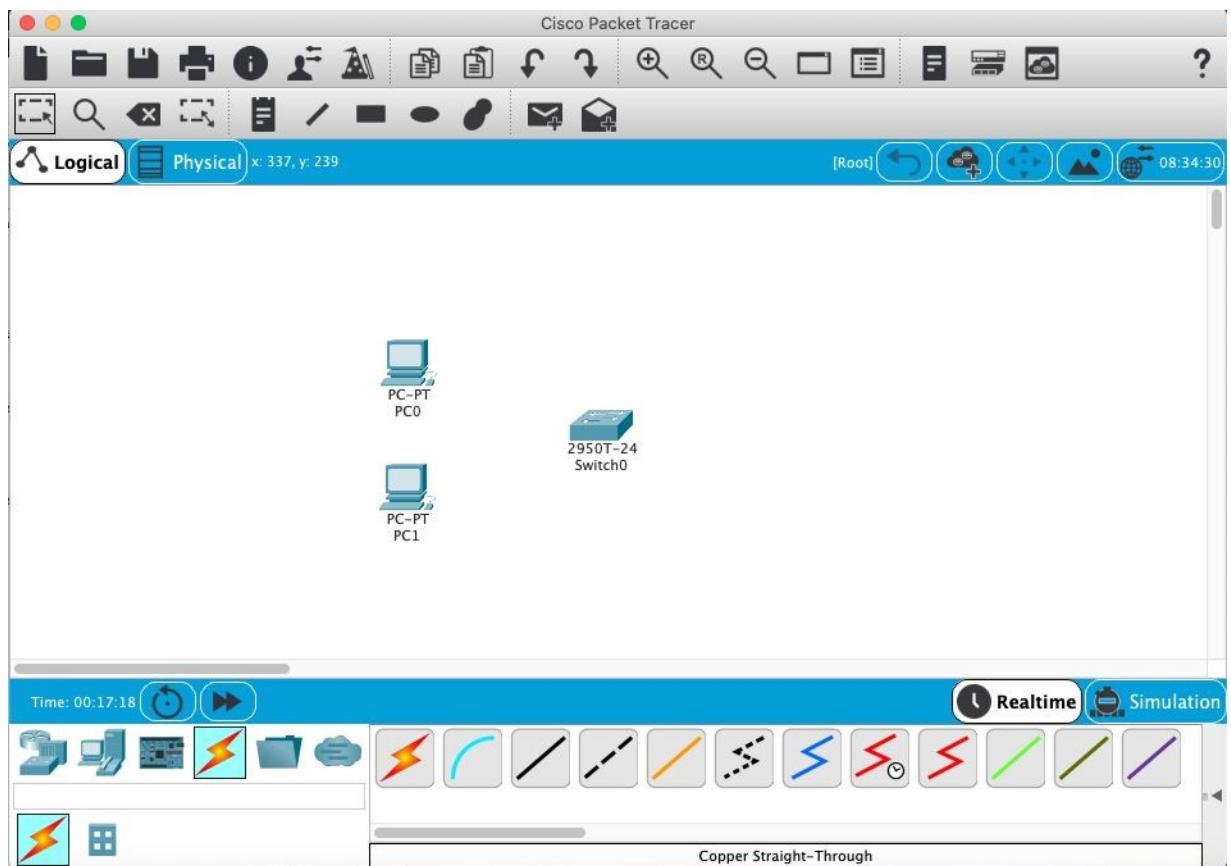
Prototype a network using Packet Tracer

Background

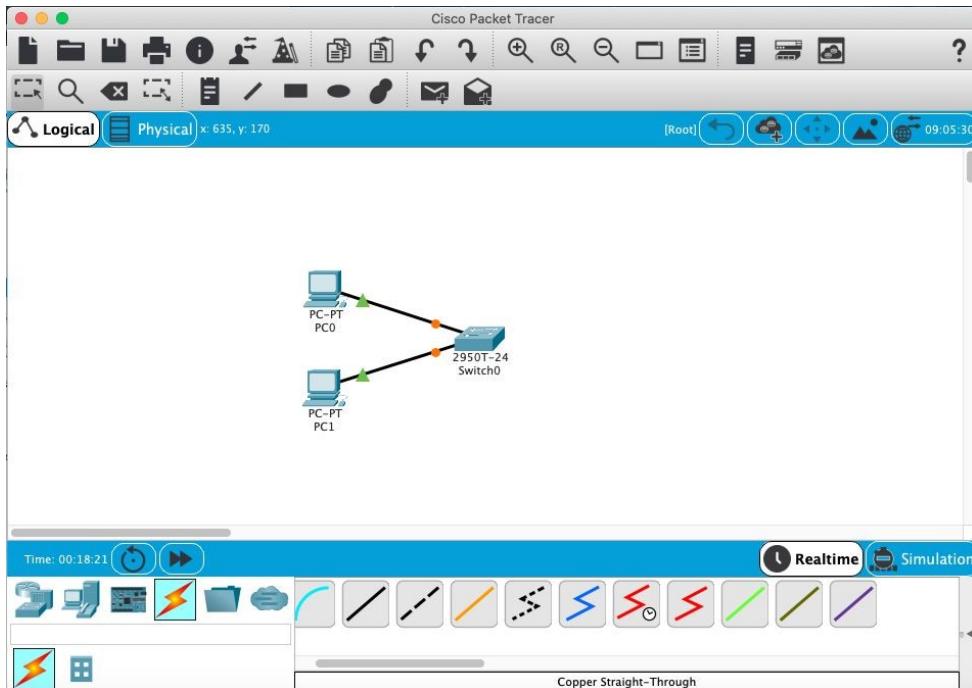
A client has requested that you set up a simple network with two PCs connected to a switch. Verify that the hardware, along with the given configurations, meet the requirements of the client.

Step 1: Set up the network topology

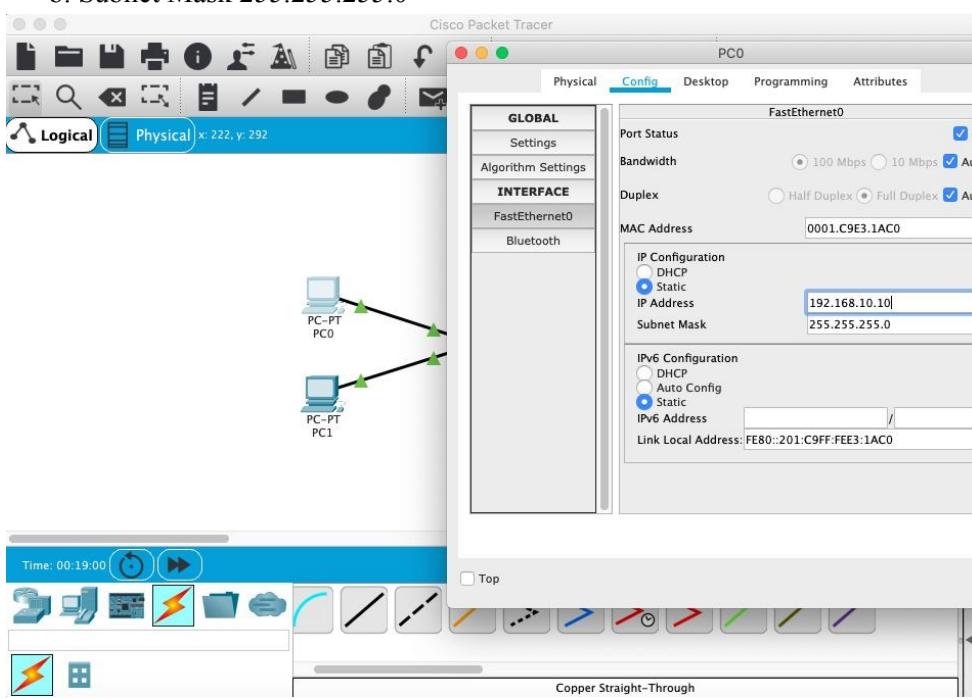
- Add two PCs and a Cisco 2950T switch



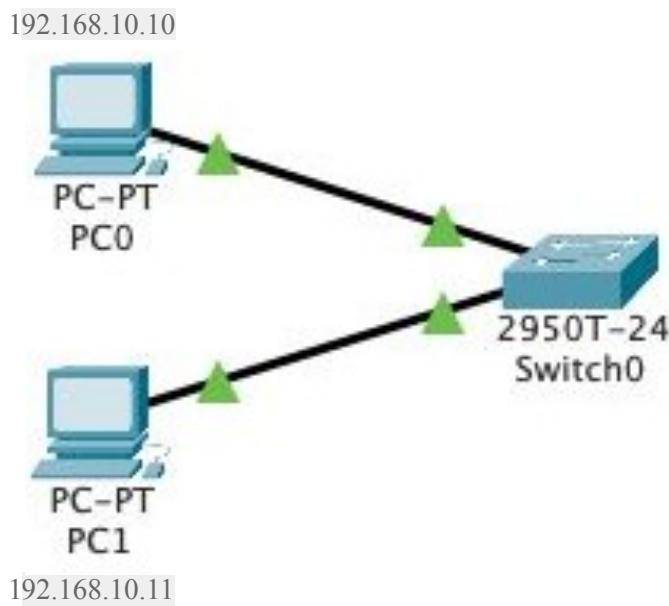
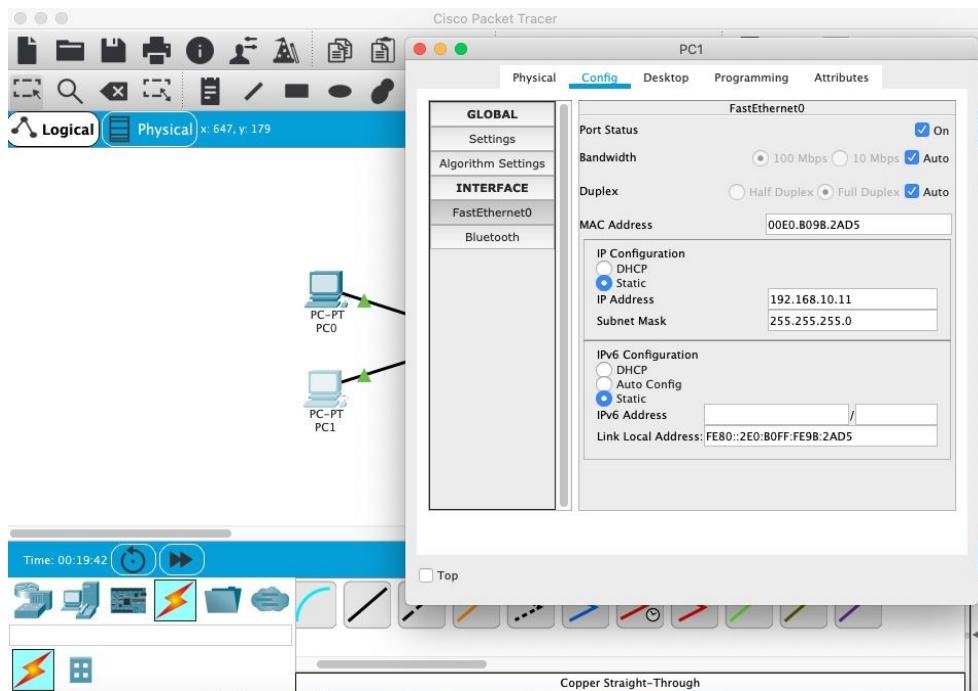
- b) Using straight-through cables, connect **PC0** to interface **Fa0/1** on **Switch0** and **PC1** to interface **Fa0/2** on **Switch0**.



- c) Configure PC0 using the **Config** tab in the PC0 configuration window:
- IP address: 192.168.10.10
 - Subnet Mask 255.255.255.0



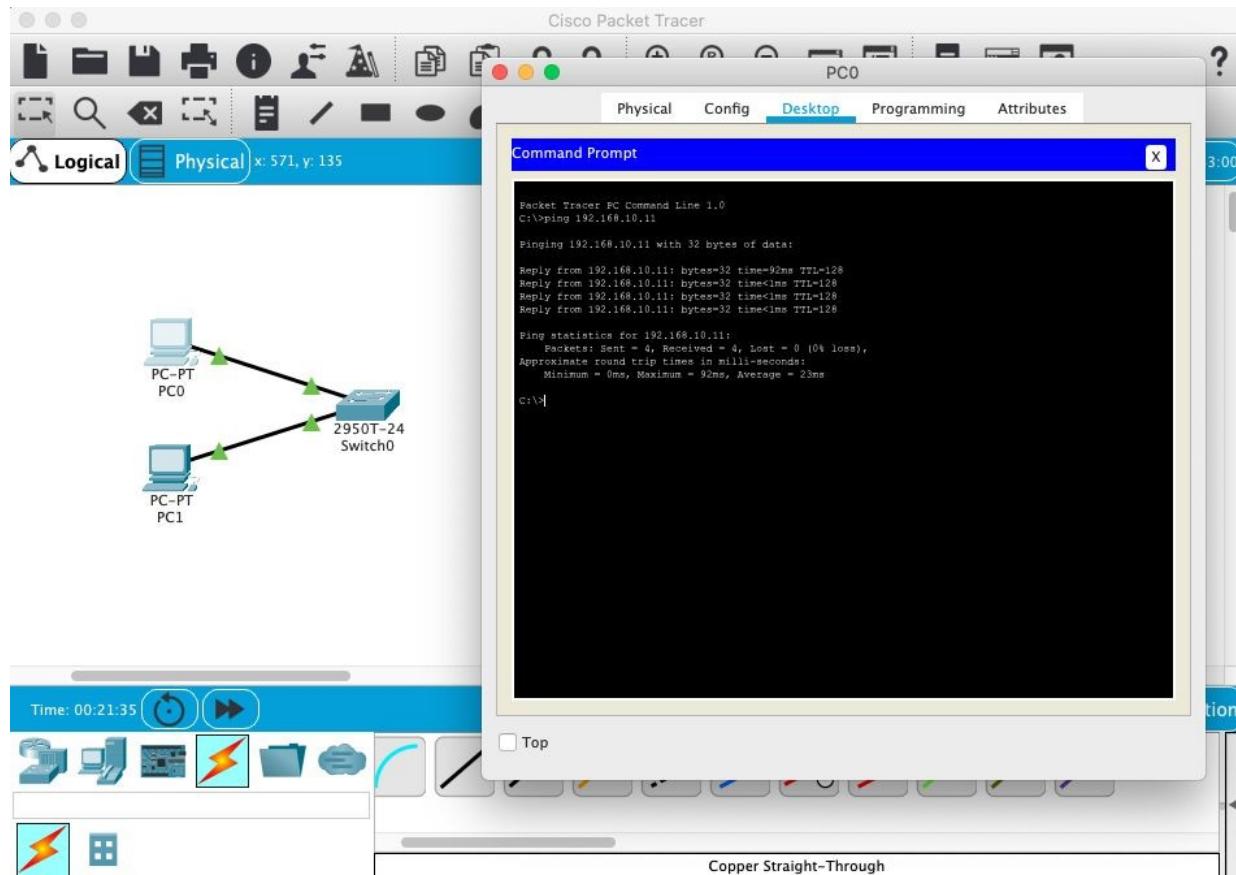
- d) Configure PC1 using the **Config** tab in the PC1 configuration window
- IP address: 192.168.10.11
 - Subnet Mask 255.255.255.0



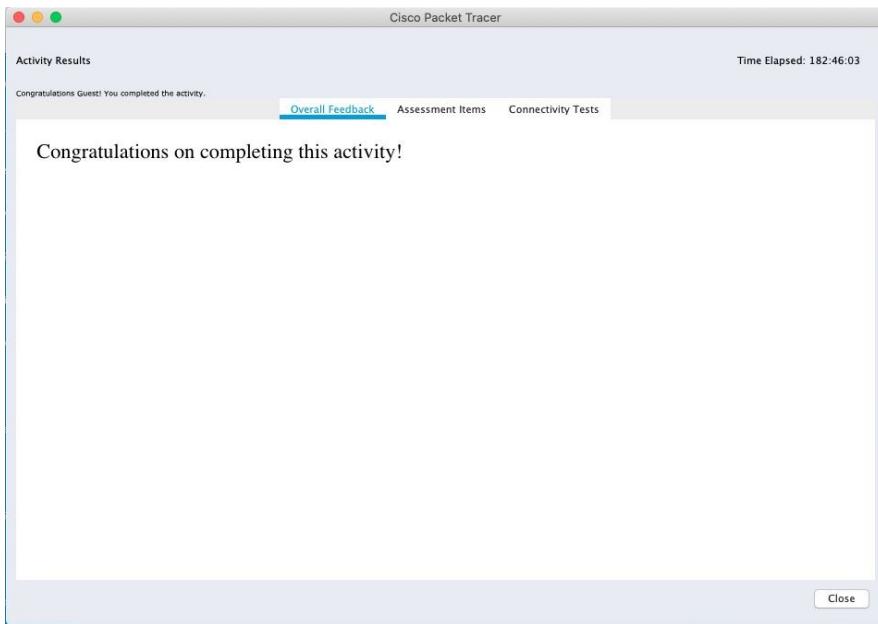
Step 2: Test connectivity from PC0 to PC1

- a) Use the **ping** command to test connectivity.
 - a. Click PC0.
 - b. Choose the **Desktop** tab.
 - c. Choose **Command Prompt**.
 - d. Type: **ping 192.168.10.11** and press *enter*.

- b) A successful **ping** indicates the network was configured correctly and the prototype validates the hardware and software configurations. A successful ping should resemble the below output:



- c) Close the configuration window.
- d) Click the **Check Results** button at the bottom of the instruction window to check your work..

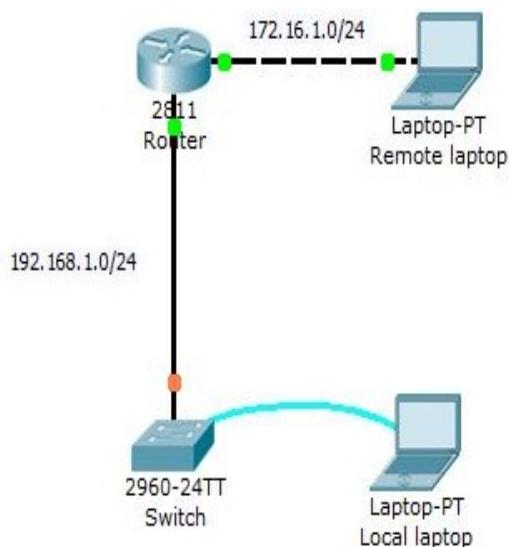


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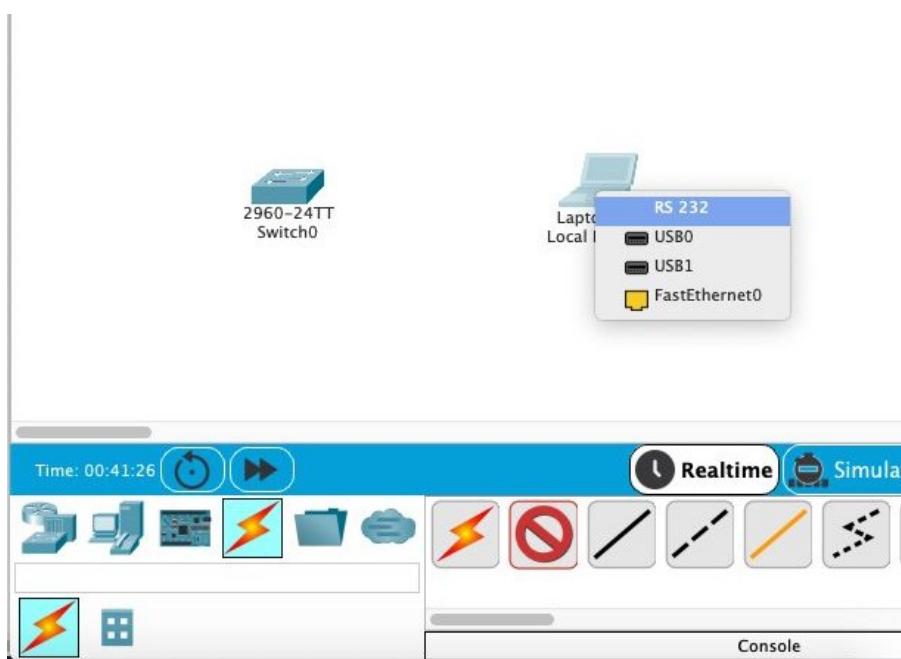
Lab 4.1: Basic configuration - hostname, motd banner, passwd etc

Objective:

This lab will test your ability to configure basic settings such as hostname, motd banner, encrypted passwords, and terminal options on a Packet Tracer 6.2 simulated Cisco Catalyst switch.



1. Use the local laptop to connect to the switch console.





2. Configure Switch hostname as LOCAL-SWITCH

Open terminal of local laptop

The screenshot shows a terminal window titled "Local Laptop" with the tab "Desktop" selected. The window title bar also includes "Physical", "Config", "Terminal", "Programming", and "Attributes". The terminal window displays the following text:

```
Copyright (c) 1986-2005 by Cisco Systems, Inc.  
Compiled Wed 12-Oct-05 22:05 by pt_team  
Image text-base: 0x80000098, data-base: 0x814129C4  
  
Cisco WS-C2960-24TT (RC32300) processor (revision C0) with 21039K bytes of memory.  
  
24 FastEthernet/IEEE 802.3 interface(s)  
2 Gigabit Ethernet/IEEE 802.3 interface(s)  
  
63488K bytes of flash-simulated non-volatile configuration memory.  
Base ethernet MAC Address : 000B.BE8B.4781  
Motherboard assembly number : 73-9832-06  
Power supply part number : 341-0097-02  
Motherboard serial number : FOC103248MJ  
Power supply serial number : DCA1021335A  
Model revision number : B0  
Motherboard revision number : C0  
Model number : WS-C2960-24TT  
System serial number : FOC10321EY  
Top Assembly Part Number : 800-26671-02  
Top Assembly Revision Number : B0  
Version ID : V02  
CLEI Code Number : COM3K00BRA  
Hardware Board Revision Number : 0x01  
  
Switch Ports Model SW Version SW Image  
-----  
* 1 26 WS-C2960-24TT 12.2 C2960-LANBASE-M  
  
Cisco IOS Software, C2960 Software (C2960-LANBASE-M), Version 12.2(25)FX, RELEASE SOFTWARE (fcl)  
Copyright (c) 1986-2005 by Cisco Systems, Inc.  
Compiled Wed 12-Oct-05 22:05 by pt_team  
  
Press RETURN to get started!
```

Top

Enable command - To enter in privilege exec mode

The screenshot shows a terminal window titled "Local Laptop" with the tab "Desktop" selected. The window title bar also includes "Physical", "Config", "Terminal", "Programming", and "Attributes". The terminal window displays the following text:

```
Copyright (c) 1986-2005 by Cisco Systems, Inc.  
  
Cisco WS-C2960-24TT (RC32300) processor (revision C0) with 21039K bytes of memory.  
  
24 FastEthernet/IEEE 802.3 interface(s)  
2 Gigabit Ethernet/IEEE 802.3 interface(s)  
  
63488K bytes of flash-simulated non-volatile configuration memory.  
Base ethernet MAC Address : 000B.BE8B.4781  
Motherboard assembly number : 73-9832-06  
Power supply part number : 341-0097-02  
Motherboard serial number : FOC103248MJ  
Power supply serial number : DCA1021335A  
Model revision number : B0  
Motherboard revision number : C0  
Model number : WS-C2960-24TT  
System serial number : FOC10321EY  
Top Assembly Part Number : 800-26671-02  
Top Assembly Revision Number : B0  
Version ID : V02  
CLEI Code Number : COM3K00BRA  
Hardware Board Revision Number : 0x01  
  
Switch Ports Model SW Version SW Image  
-----  
* 1 26 WS-C2960-24TT 12.2 C2960-LANBASE-M  
  
Cisco IOS Software, C2960 Software (C2960-LANBASE-M), Version 12.2(25)FX, RELEASE SOFTWARE (fcl)  
Copyright (c) 1986-2005 by Cisco Systems, Inc.  
Compiled Wed 12-Oct-05 22:05 by pt_team  
  
Press RETURN to get started!  
  
Switch>
```

Top

Enter configuration mode Use the configure privileged EXEC command to enter global configuration mode.

Local Laptop

Physical Config Desktop Programming Attributes

Terminal

```
Compiled Wed 12-Oct-05 22:05 by pt_team
Image text-base: 0x80000098, data-base: 0x814129C4

Cisco WS-C2960-24TT (RC32300) processor (revision C0) with 21039K bytes of memory.

24 FastEthernet/IEEE 802.3 interface(s)
2 Gigabit Ethernet/IEEE 802.3 interface(s)

63488K bytes of flash-simulated non-volatile configuration memory.

Base ethernet MAC Address : 000B.BEEB.47E1
Motherboard assembly number : 73-9432-06
Power supply part number : 341-0097-02
Motherboard serial number : FOC103248M3
Power supply serial number : DCA102133JA
Model revision number : B0
Motherboard revision number : C0
Model number : WS-C2960-24TT
System serial number : FOC1033ZIEY
Top Assembly Part Number : 800-26671-02
Top Assembly Revision Number : B0
Version ID : V02
CLIEI Code Number : COM3K00BRA
Hardware Board Revision Number : 0x01

Switch Ports Model SW Version SW Image
----- -----
* 1 26 WS-C2960-24TT 12.2 C2960-LANBASE-M

Cisco IOS Software, C2960 Software (C2960-LANBASE-M), Version 12.2(25)FX, RELEASE SOFTWARE (fc1)
Copyright (c) 1986-2005 by Cisco Systems, Inc.
Compiled Wed 12-Oct-05 22:05 by pt_team

Press RETURN to get started!
```

Switch>enable
Switch#

Top

Local Laptop

Physical Config Desktop Programming Attributes

Terminal

```
Image text-base: 0x80000098, data-base: 0x814129C4

Cisco WS-C2960-24TT (RC32300) processor (revision C0) with 21039K bytes of memory.

24 FastEthernet/IEEE 802.3 interface(s)
2 Gigabit Ethernet/IEEE 802.3 interface(s)

63488K bytes of flash-simulated non-volatile configuration memory.

Base ethernet MAC Address : 000B.BEEB.47E1
Motherboard assembly number : 73-9432-06
Power supply part number : 341-0097-02
Motherboard serial number : FOC103248M3
Power supply serial number : DCA102133JA
Model revision number : B0
Motherboard revision number : C0
Model number : WS-C2960-24TT
System serial number : FOC1033ZIEY
Top Assembly Part Number : 800-26671-02
Top Assembly Revision Number : B0
Version ID : V02
CLIEI Code Number : COM3K00BRA
Hardware Board Revision Number : 0x01

Switch Ports Model SW Version SW Image
----- -----
* 1 26 WS-C2960-24TT 12.2 C2960-LANBASE-M

Cisco IOS Software, C2960 Software (C2960-LANBASE-M), Version 12.2(25)FX, RELEASE SOFTWARE (fc1)
Copyright (c) 1986-2005 by Cisco Systems, Inc.
Compiled Wed 12-Oct-05 22:05 by pt_team

Press RETURN to get started!
```

Switch>enable
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#

Top

Set hostname as LOCAL-SWITCH using hostname LOCAL-SWITCH command

The screenshot shows a terminal window titled "Terminal" on a "Local Laptop". The window displays the output of several commands:

```
Cisco WS-C2960-24TT (RC32300) processor (revision C0) with 21039K bytes of memory.

24 FastEthernet/IEEE 802.3 interface(s)
3 Gigabit Ethernet/IEEE 802.3 interface(s)

63488K bytes of flash-simulated non-volatile configuration memory.
Base ethernet MAC Address : 000B.BE8B.47E1
Motherboard assembly number : 73-9832-06
Power supply part number : 341-0097-02
Motherboard serial number : FOC103249M
Power supply serial number : LOCAL02135JA
Model revision number : B0
Motherboard revision number : C0
Model number : WS-C2960-24TT
System serial number : FOC10321IEY
Top Assembly Part Number : 800-26671-02
Top Assembly Revision Number : V02
Version ID : V02
CLAB Code Number : COMIx00BRA
Hardware Board Revision Number : 0x01

Switch Ports Model SW Version SW Image
----- -----
* 1 26 WS-C2960-24TT 12.2 C2960-LANBASE-M

Cisco IOS Software, C2960 Software (C2960-LANBASE-M), Version 12.2(25)FX, RELEASE SOFTWARE (fc1)
Copyright (c) 1986-2005 by Cisco Systems, Inc.
Compiled Wed 12-Oct-05 22:05 by pt_team

Press RETURN to get started!

Switch>enable
Switch>configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname LOCAL-SWITCH
LOCAL-SWITCH(config)#
```

Top

Run show running-config command to check the hostname

The screenshot shows a terminal window titled "Terminal" on a "Local Laptop". The window displays the output of the "show running-config" command:

```
* 1 26 WS-C2960-24TT 12.2 C2960-LANBASE-M

Cisco IOS Software, C2960 Software (C2960-LANBASE-M), Version 12.2(25)FX, RELEASE SOFTWARE (fc1)
Copyright (c) 1986-2005 by Cisco Systems, Inc.
Compiled Wed 12-oct-05 22:05 by pt_team

Press RETURN to get started!

Switch>enable
Switch>configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname LOCAL-SWITCH
LOCAL-SWITCH#
LOCAL-SWITCH# tSYS-3-CONFIG_ID_1: Configured from console by console
LOCAL-SWITCH#show running-config
Building configuration...
Current configuration : 1086 bytes
!
version 12.2
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname LOCAL-SWITCH
!
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
interface FastEthernet0/1
interface FastEthernet0/2
--More-- |
```

Top

3. Configure the message of the day as "Unauthorized access is forbidden"

Use command banner motd #

Type the message and add # at the end.

The screenshot shows a terminal window titled "Terminal" with the title bar "Local Laptop". The window has tabs: Physical, Config, Desktop (which is selected), Programming, and Attributes. The terminal content shows the configuration mode of a Cisco switch. The user enters "banner motd #Unauthorized access is forbidden#" and presses Enter. The configuration is saved, and the user exits configuration mode by entering "exit". The terminal then displays the message "Press RETURN to get started!"

```
Switch>enable
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname LOCAL-SWITCH
LOCAL-SWITCH(config)#end
LOCAL-SWITCH#
%SYS-5-CONFIG_I: Configured from console by console
LOCAL-SWITCH#show running-config
Building configuration...
Current configuration : 1086 bytes
!
version 12.2
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname LOCAL-SWITCH
!
!
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
interface FastEthernet0/1
!
interface FastEthernet0/2

LOCAL-SWITCH#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
LOCAL-SWITCH(config)#banner motd #
Enter TEXT message. End with the character '#'.
Unauthorized access is forbidden#
LOCAL-SWITCH(config)#

```

Top

You can check the message of the day when you open the terminal for accessing switch again.

The screenshot shows a terminal window titled "Terminal" with the title bar "Local Laptop". The window has tabs: Physical, Config, Desktop (selected), Programming, and Attributes. The terminal content shows the configuration mode of a Cisco switch. The user enters "banner motd #Unauthorized access is forbidden#" and presses Enter. The configuration is saved, and the user exits configuration mode by entering "exit". The terminal then displays the message "Press RETURN to get started!". When the user presses Enter, the terminal displays the configured banner message "Unauthorized access is forbidden".

```
Switch>enable
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Unauthorized access is forbidden#
LOCAL-SWITCH(config)#end
LOCAL-SWITCH#
%SYS-5-CONFIG_I: Configured from console by console
LOCAL-SWITCH#exit

LOCAL-SWITCH con0 is now available

Press RETURN to get started.

Unauthorized access is forbidden
LOCAL-SWITCH#

```

Top

4. Configure the password for privileged mode access as "cisco". The password must be md5 encrypted
Use command enable secret cisco

The screenshot shows a terminal window titled "Terminal" with the following text:

```
$ Invalid input detected at '^' marker.  
LOCAL-SMITH#exit  
  
LOCAL-SMITH con0 is now available  
  
Press RETURN to get started.  
  
Unauthorized access is forbidden  
LOCAL-SMITH>enable  
LOCAL-SMITH#configure terminal  
Enter configuration commands, one per line. End with CNTL/Z.  
LOCAL-SMITH(config)#enable secret cisco  
LOCAL-SMITH(config)#
```

Top

In running-config it displays as enable secret.

The screenshot shows a terminal window titled "Terminal" with the following text:

```
Unauthorized access is forbidden  
LOCAL-SMITH>enable  
LOCAL-SMITH#configure terminal  
Enter configuration commands, one per line. End with CNTL/Z.  
LOCAL-SMITH(config)#enable secret cisco  
LOCAL-SMITH(config)#end  
LOCAL-SMITH#  
SYS-5-CONFIG-I: Configured from console by console  
LOCAL-SMITH#show running-config  
Building configuration...  
  
Current configuration : 1183 bytes  
version 12.2  
no service timestamp log datetime msec  
no service timestamps debug datetime msec  
no service password-encryption  
  
hostname LOCAL-SMITH  
enable secret 5 $1$9mZErz$hx5rVt7rPNoS4wgbXXX7m0  
!  
!  
!  
!  
spanning-tree mode pvst  
spanning-tree extend system-id  
interface FastEthernet0/1  
--More--
```

Top

When we try to enable switch again, it will ask for password.

Local Laptop

Physical Config Desktop Programming Attributes

Terminal

```
localhost:enable>exit  
LOCAL-SWITCH#exit  
  
LOCAL-SWITCH con0 is now available  
  
Press RETURN to get started.  
  
Unauthorized access is forbidden  
LOCAL-SWITCH>enable  
Password:  
Password:  
LOCAL-SWITCH#
```

Top

Local Laptop

Physical Config Desktop Programming Attributes

Terminal

```
localhost:enable>exit  
LOCAL-SWITCH#exit  
  
LOCAL-SWITCH con0 is now available  
  
Press RETURN to get started.  
  
Unauthorized access is forbidden  
LOCAL-SWITCH>enable  
Password:  
Password:  
LOCAL-SWITCH#
```

Top

5. Configure password encryption on the switch using the global configuration command

The screenshot shows a terminal window titled "Terminal" within a "Local Laptop" interface. The window has tabs at the top: Physical, Config, Desktop (which is selected), Programming, and Attributes. The terminal content is as follows:

```
LOCAL-SWITCH con0 is now available

Press RETURN to get started.

Unauthorized access is forbidden
LOCAL-SWITCH>enable
Password:
LOCAL-SWITCH#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
LOCAL-SWITCH(config)#service password-encryption
LOCAL-SWITCH(config)#
```

Top

The screenshot shows a terminal window titled "Terminal" within a "Local Laptop" interface. The window has tabs at the top: Physical, Config, Desktop (which is selected), Programming, and Attributes. The terminal content is as follows:

```
Unauthorized access is forbidden
LOCAL-SWITCH>enable
Password:
LOCAL-SWITCH#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
LOCAL-SWITCH(config)#service password-encryption
LOCAL-SWITCH(config)#end
LOCAL-SWITCH#
*SYN-5-CONFIG-I: Configured from console by console

LOCAL-SWITCH#show running-config
Building configuration...

Current configuration : 1180 bytes
!
version 12.2
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname LOCAL-SWITCH
!
enable secret 5 $1$ERr$hx5rVt7rPNoS4wghXXX)m)
!
!
!
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
!
interface FastEthernet0/1
--More--
```

Top

6. Configure CONSOLE access with the following settings :

- Login enabled
- Password : whatever you like
- History size : 15 commands
- Timeout : 6'45"
- Synchronous logging

The screenshot shows a software interface titled "Local Laptop" with a tab bar at the top. The "Desktop" tab is selected. Below the tabs is a terminal window with a blue header bar labeled "Terminal". The terminal window contains a configuration script for a Cisco router. The script includes configurations for various interfaces (FastEthernet0/21, FastEthernet0/22, FastEthernet0/23, FastEthernet0/24, GigabitEthernet0/1, GigabitEthernet0/2), a VLAN 1 interface (Vlan1), and terminal lines (line con 0, line vty 0 4, line vty 5 15). It also includes a banner message and an end command. The prompt at the bottom right of the terminal window is "LOCAL-SMITH#".

```
!interface FastEthernet0/21
!
interface FastEthernet0/22
!
interface FastEthernet0/23
!
interface FastEthernet0/24
!
interface GigabitEthernet0/1
!
interface GigabitEthernet0/2
!
interface Vlan1
  no ip address
  shutdown
!
banner motd ^C
Unauthorized access is forbidden^C
!
!
!
line con 0
!
line vty 0 4
  login
line vty 5 15
  login
!
!
!
end

LOCAL-SMITH#
```

Top

Local Laptop

Physical Config Desktop Programming Attributes

Terminal X

```
! interface GigabitEthernet0/2
!
interface Vlan1
no ip address
shutdown
!
banner motd ^C
Unauthorized access is forbidden^C
!
!
!
line con 0
!
line vty 0 4
login
line vty 5 15
login
!
!
!
end

LOCAL-SMITHC#
LOCAL-SMITHC#
LOCAL-SMITHC#
LOCAL-SMITHC#configure terminal
Enter configuration commands, one per line. End with CNTL/z.
LOCAL-SMITHC(config)#line con 0
LOCAL-SMITHC(config-line)#password ciscoconsole
LOCAL-SMITHC(config-line)#logging synchronous
LOCAL-SMITHC(config-line)#login
LOCAL-SMITHC(config-line)#history size 15
LOCAL-SMITHC(config-line)#exec-timeout 6 45
LOCAL-SMITHC(config-line)#

```

Top

Local Laptop

Physical Config Desktop Programming Attributes

Terminal X

```
! interface FastEthernet0/23
!
interface FastEthernet0/24
!
interface GigabitEthernet0/1
!
interface GigabitEthernet0/2
!
interface Vlan1
no ip address
shutdown
!
banner motd ^C
Unauthorized access is forbidden^C
!
!
!
line con 0
password 7 0822455p0A1606181c1803082f
logging synchronous
login
history size 15
exec-timeout 6 45
!
line vty 0 4
login
line vty 5 15
login
!
!
!
end

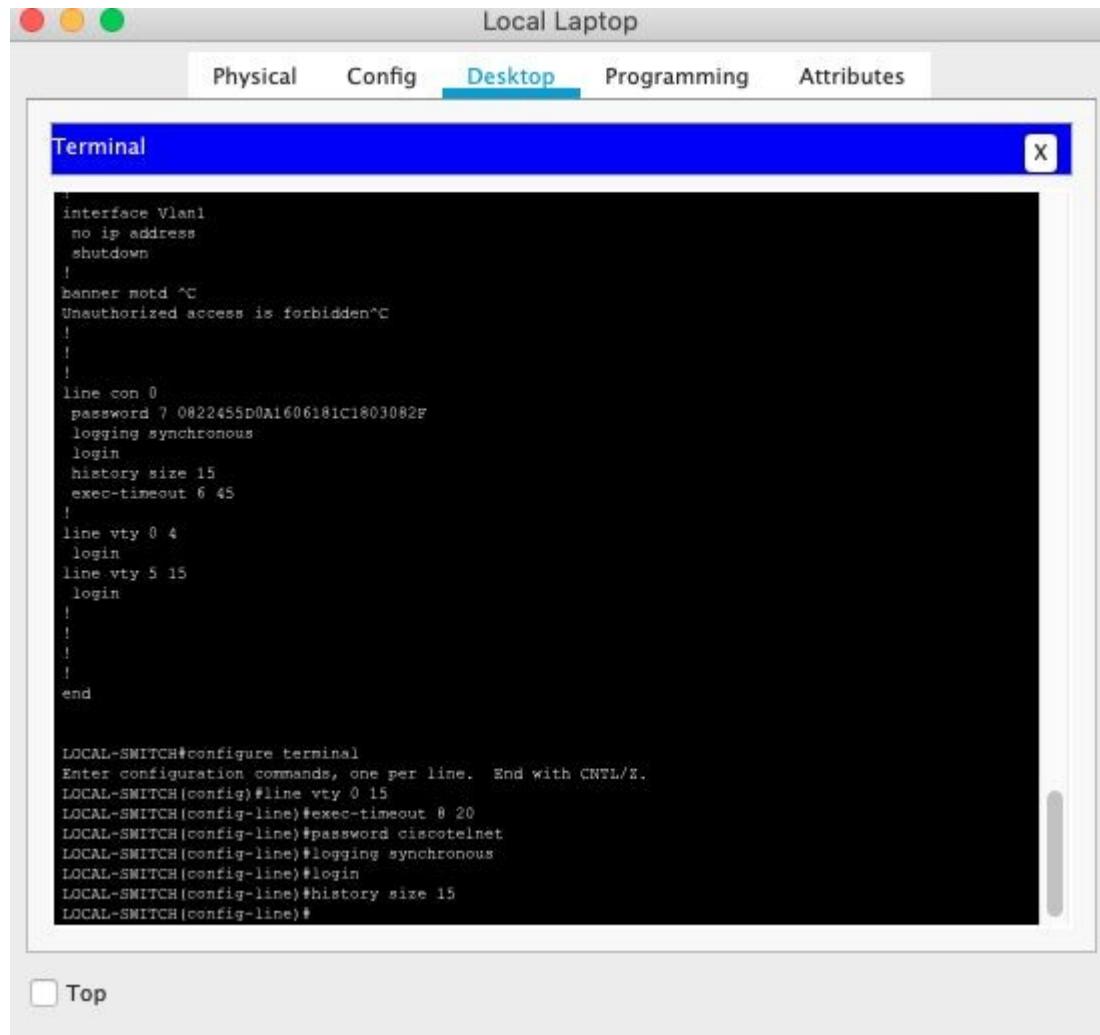
LOCAL-SMITHC#

```

Top

6. Configure TELNET access with the following settings :

- Login enabled
- Password : whatever you like
- History size : 15 commands
- Timeout : 8'20"
- Synchronous logging



The screenshot shows a software interface titled "Local Laptop" with a tab bar at the top. The "Desktop" tab is selected. Below the tabs is a window titled "Terminal". The terminal window contains the following configuration commands:

```
!interface Vlan1
no ip address
shutdown
!
banner motd ^C
Unauthorized access is forbidden^C
!
!
!
line con 0
password 7 0822455D0A1606181C1803082F
logging synchronous
login
history size 15
exec-timeout 6 45
!
line vty 0 4
login
line vty 5 15
login
!
!
!
end

LOCAL-SWITCH#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
LOCAL-SWITCH(config)#line vty 0 15
LOCAL-SWITCH(config-line)#exec-timeout 8 20
LOCAL-SWITCH(config-line)#password ciscotelnet
LOCAL-SWITCH(config-line)#logging synchronous
LOCAL-SWITCH(config-line)#login
LOCAL-SWITCH(config-line)#history size 15
LOCAL-SWITCH(config-line)#

```

At the bottom left of the terminal window, there is a checkbox labeled "Top".

Local Laptop

Physical Config Desktop Programming Attributes

Terminal X

```
interface Vlan1
no ip address
shutdown
!
banner motd "C
Unauthorized access is forbidden" C
!
!
!
line con 0
password 7 0822455p0A160618ic1803082F
logging synchronous
login
history size 15
exec-timeout 6 45
!
line vty 0 4
exec-timeout 8 20
password 7 0822455p0A1611121E050910
logging synchronous
login
history size 15
line vty 5 15
exec-timeout 8 20
password 7 0822455p0A1611121E050910
logging synchronous
login
history size 15
!
!
!
end

LOCAL-SWITCH#
```

Top

7. Configure the IP address of the switch as 192.168.1.2/24 and it's default gateway IP (192.168.1.1).

Local Laptop

Physical Config Desktop Programming Attributes

Terminal X

```
Unauthorized access is forbidden
User Access Verification

Password:
Password:
Password:
% Bad passwords

Press RETURN to get started!

Unauthorized access is forbidden
User Access Verification

Password:
LOCAL-SWITCH#
```

Top

Local Laptop

Physical Config Desktop Programming Attributes

Terminal X

```
Press RETURN to get started!

Unauthorized access is forbidden

User Access Verification

Password:
LOCAL-SWITCH>enable
Password:
LOCAL-SWITCH#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
LOCAL-SWITCH(config)#interface Vlan1
LOCAL-SWITCH(config)#ip address 192.168.1.2 255.255.255.0
^
% Invalid input detected at '^' marker.

LOCAL-SWITCH(config-if)#ip address 192.168.1.2 255.255.255.0
LOCAL-SWITCH(config-if)#ip default-gateway 192.168.1.1
LOCAL-SWITCH(config)#
```

Top

Local Laptop

Physical Config Desktop Programming Attributes

Terminal X

```
!
interface GigabitEthernet0/2
!
interface Vlan1
 ip address 192.168.1.2 255.255.255.0
 shutdown
!
ip default-gateway 192.168.1.1
!
banner motd ^C
Unauthorized access is forbidden^C
!
!
!
line con 0
 password 7 0822455D0A1606181C1803082F
 logging synchronous
 login
 history size 15
 exec-timeout 6 45
!
line vty 0 4
 exec-timeout 8 20
 password 7 0822455D0A1611121E050910
 logging synchronous
 login
 history size 15
line vty 5 15
 exec-timeout 8 20
 password 7 0822455D0A1611121E050910
 logging synchronous
 login
 history size 15
!
!
!
```

Top

Local Laptop

Physical Config Desktop Programming Attributes

Terminal

```
local switch console is now available

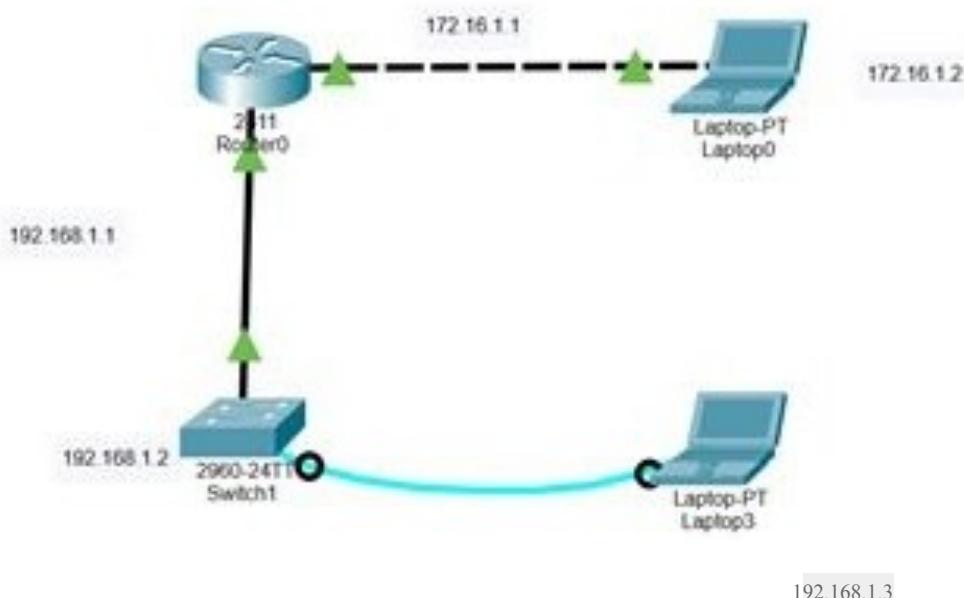
Press RETURN to get started.

Unauthorized access is forbidden
User Access Verification
Password:
LOCAL-SWITCH>enable
Password: |
LOCAL-SWITCH#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
LOCAL-SWITCH(config)#interface Vlan1
LOCAL-SWITCH(config-if)#no shutdown
LOCAL-SWITCH(config-if)#
4LINK-5-CHANGED: Interface Vlan1, changed state to up
LOCAL-SWITCH(config-if)#

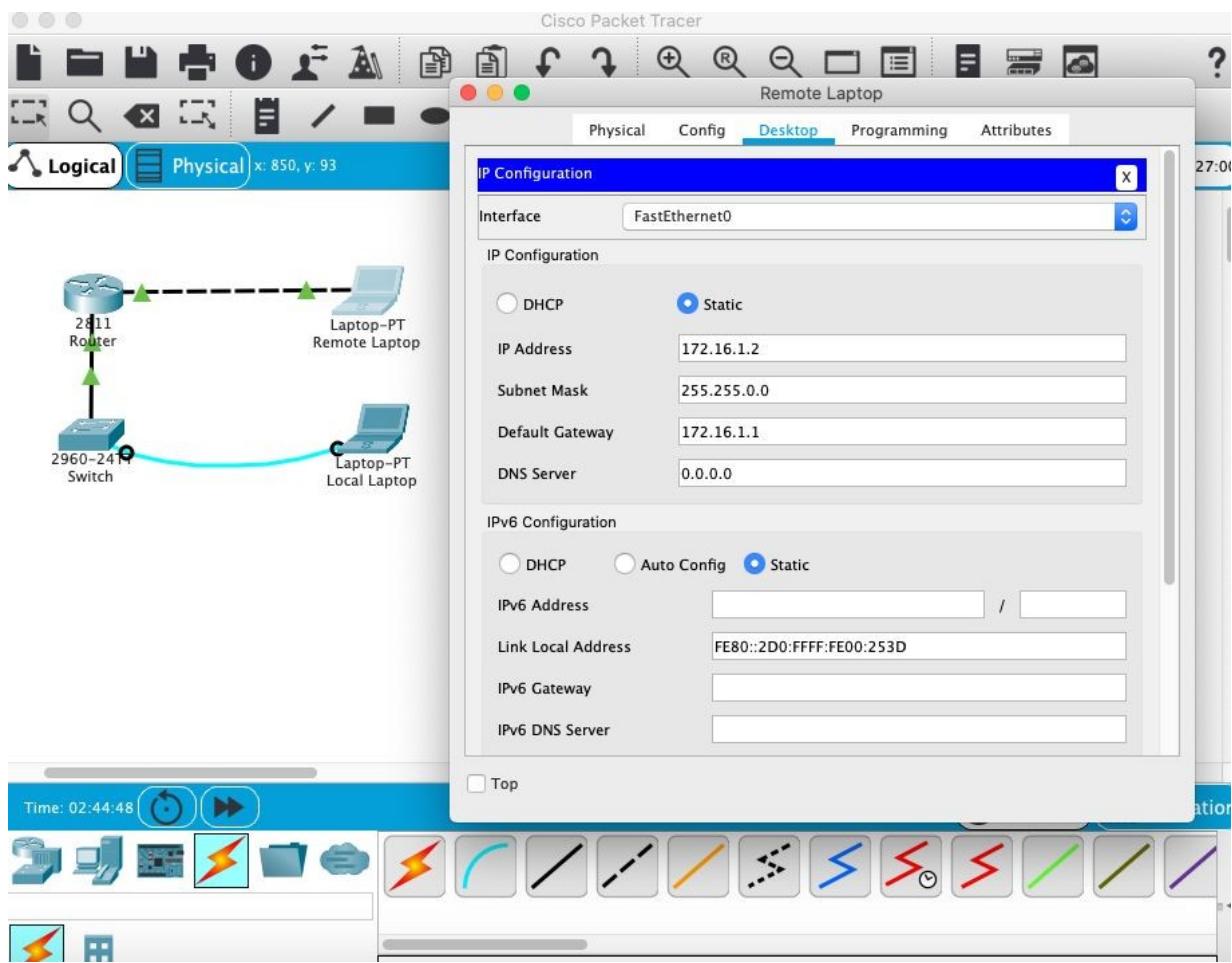
```

Top

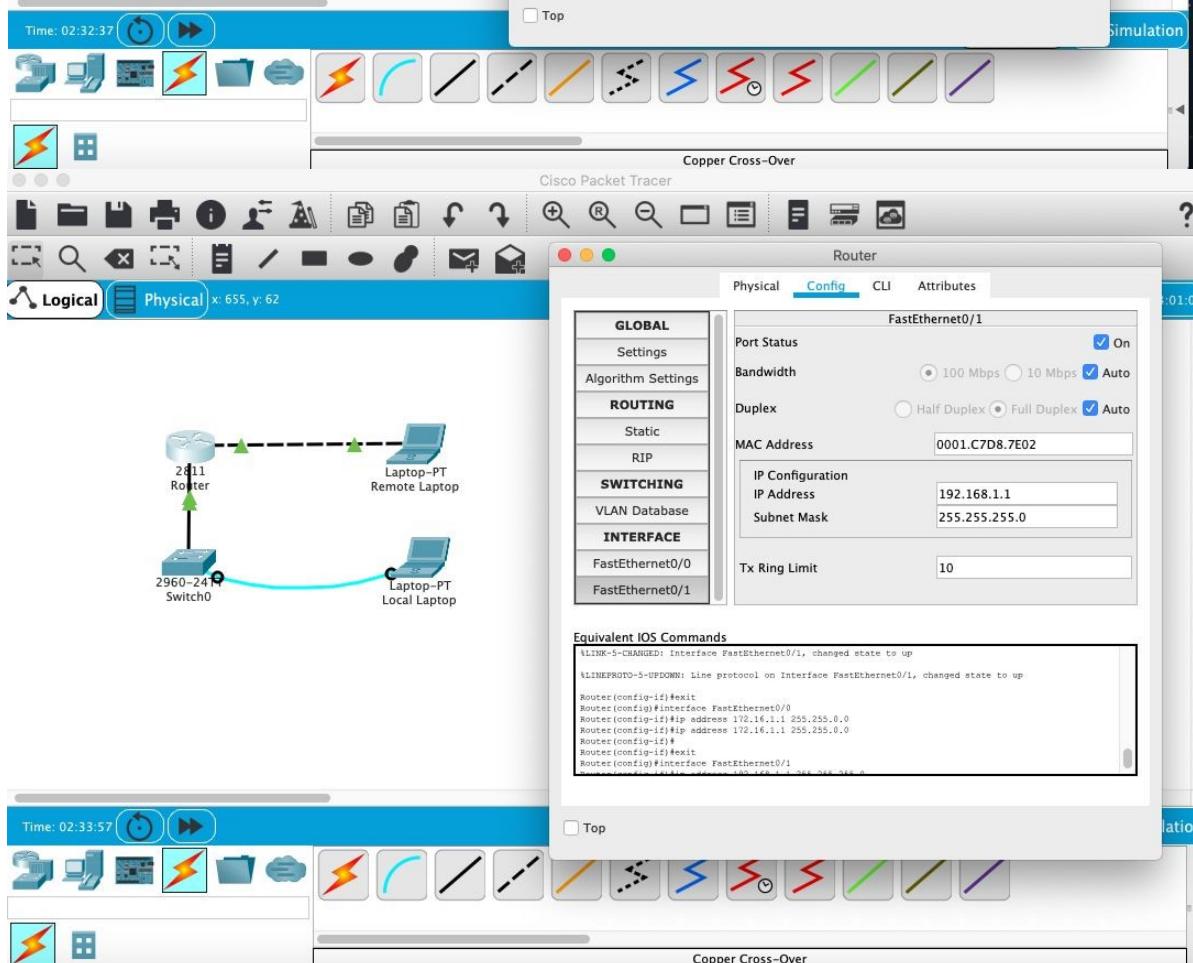
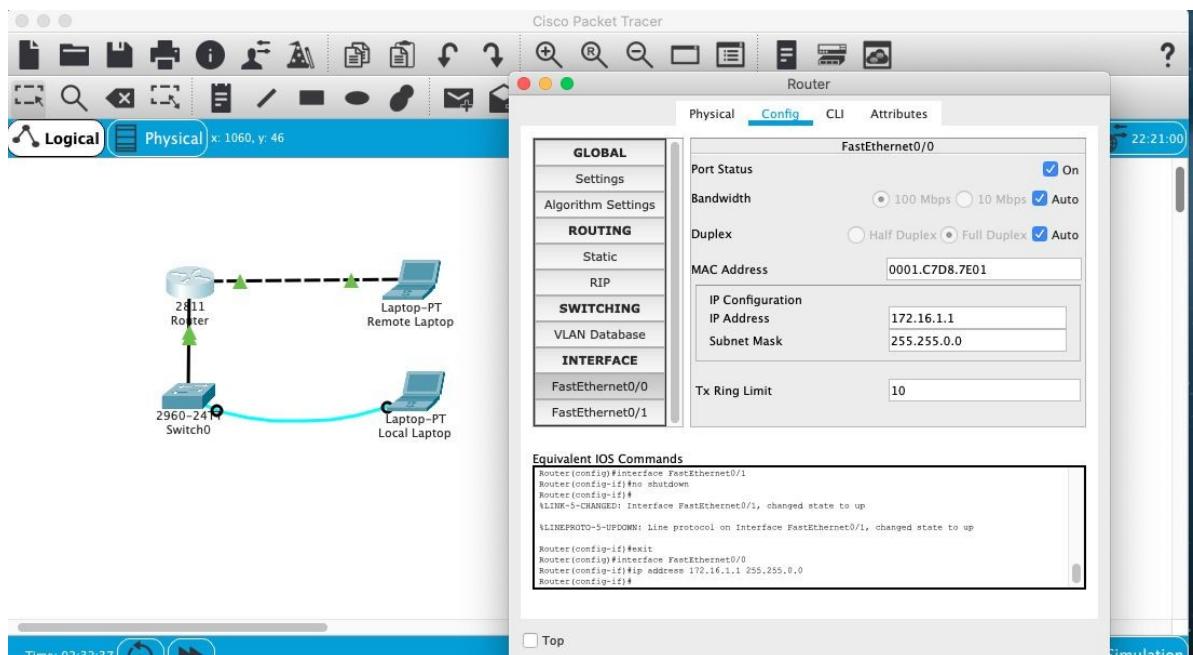
8. Test telnet connectivity from the Remote Laptop using the telnet client.



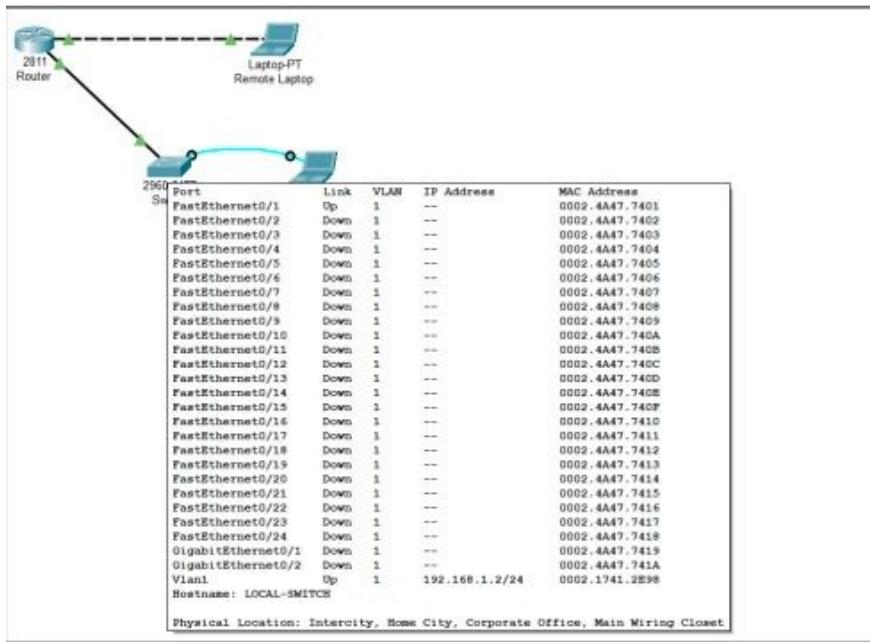
Configuration of Remote laptop



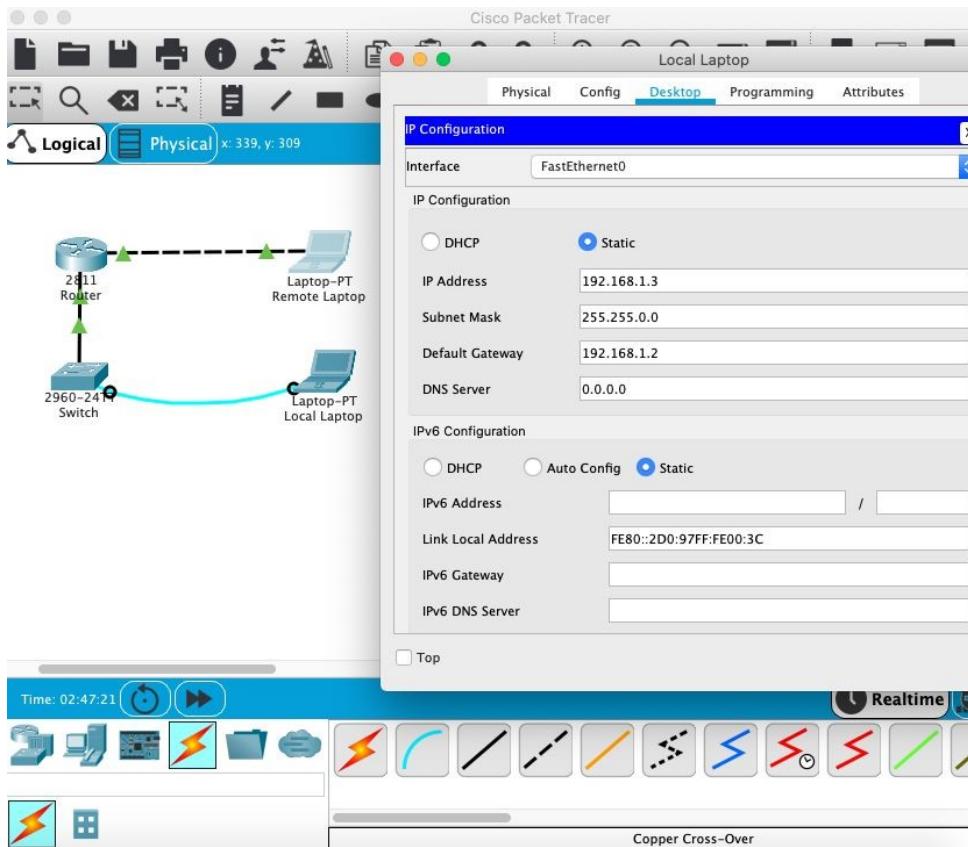
Configuration of Router



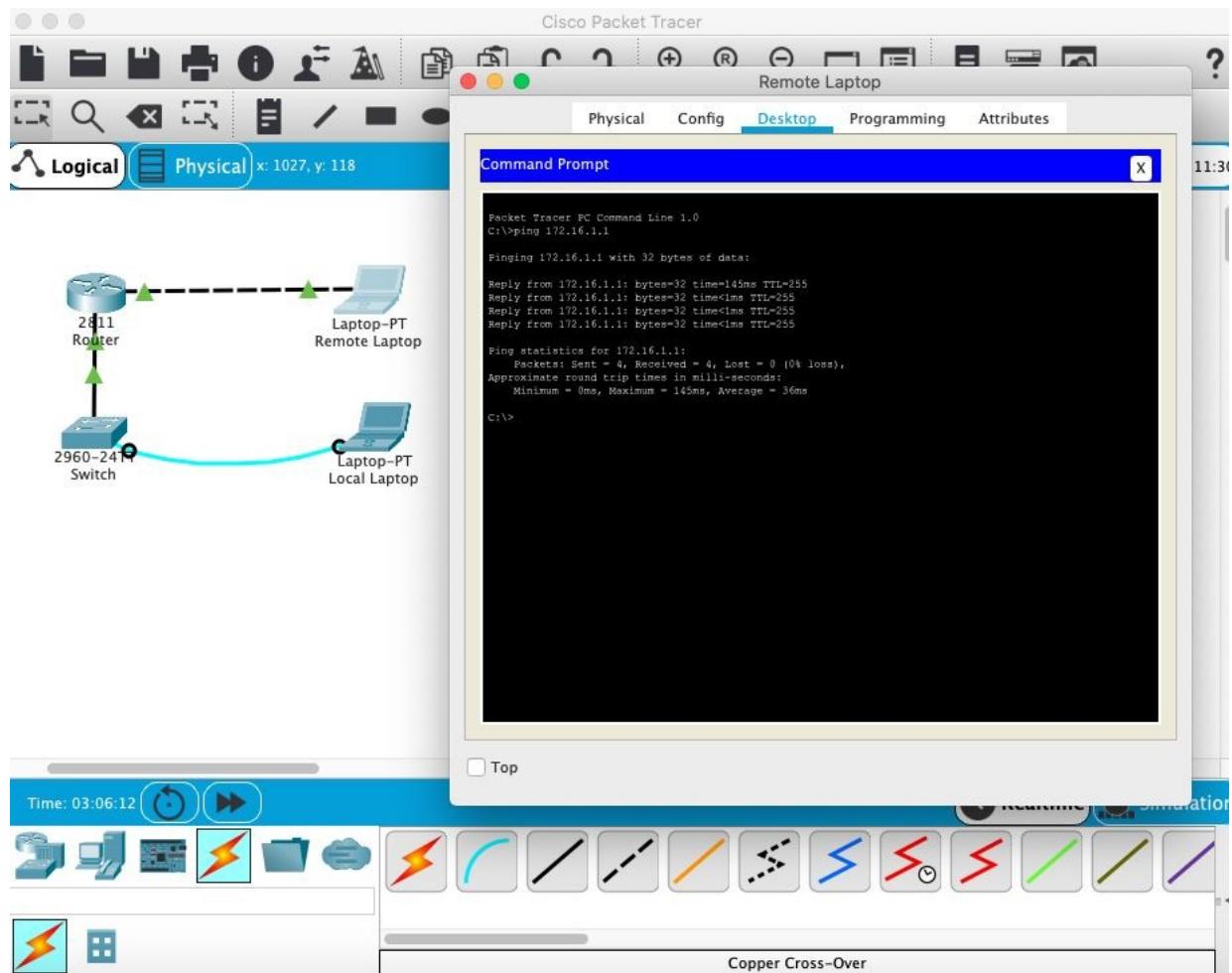
Configuration of Switch

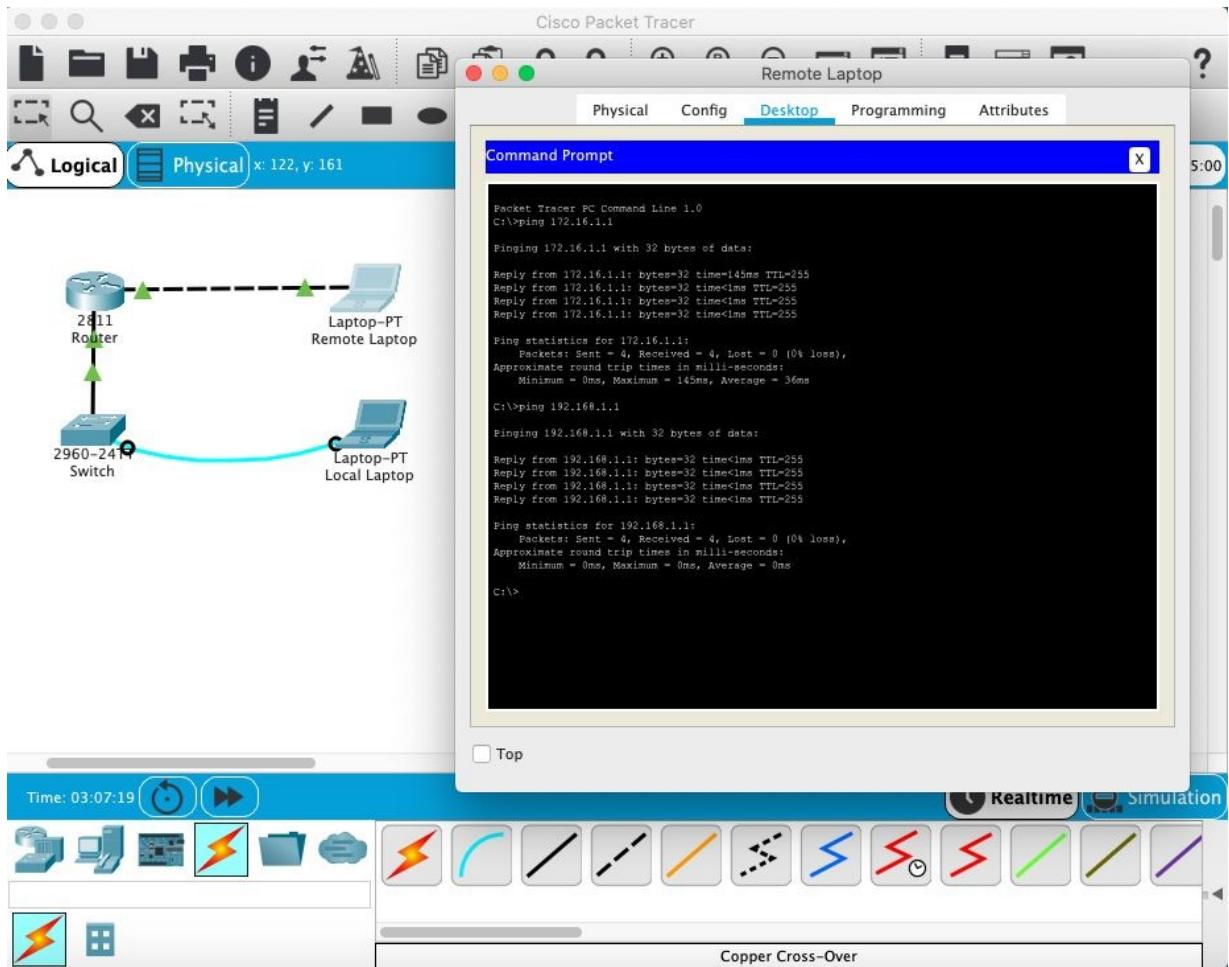


Configuration of Remote Laptop

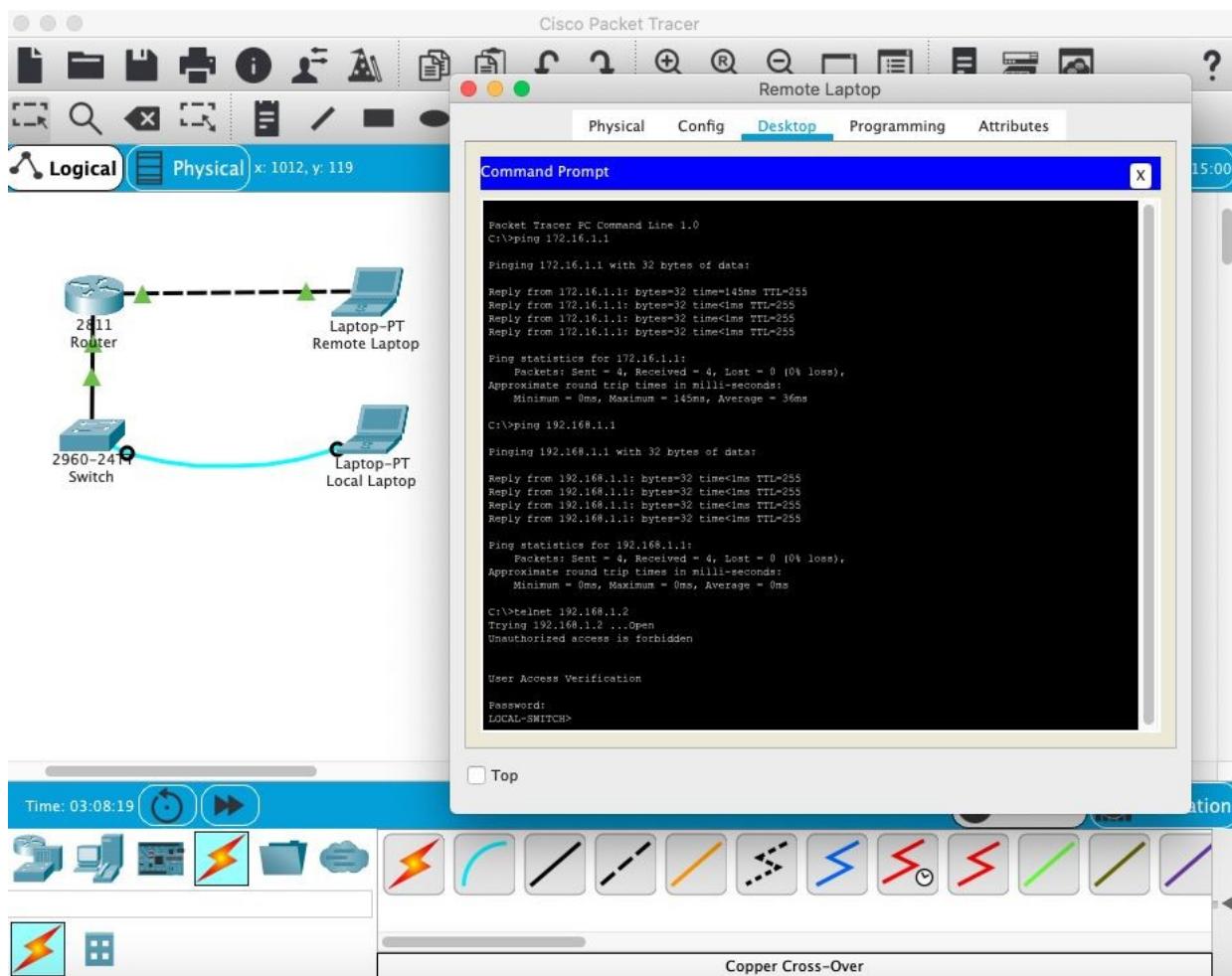


Pinging Router from Remote Laptop

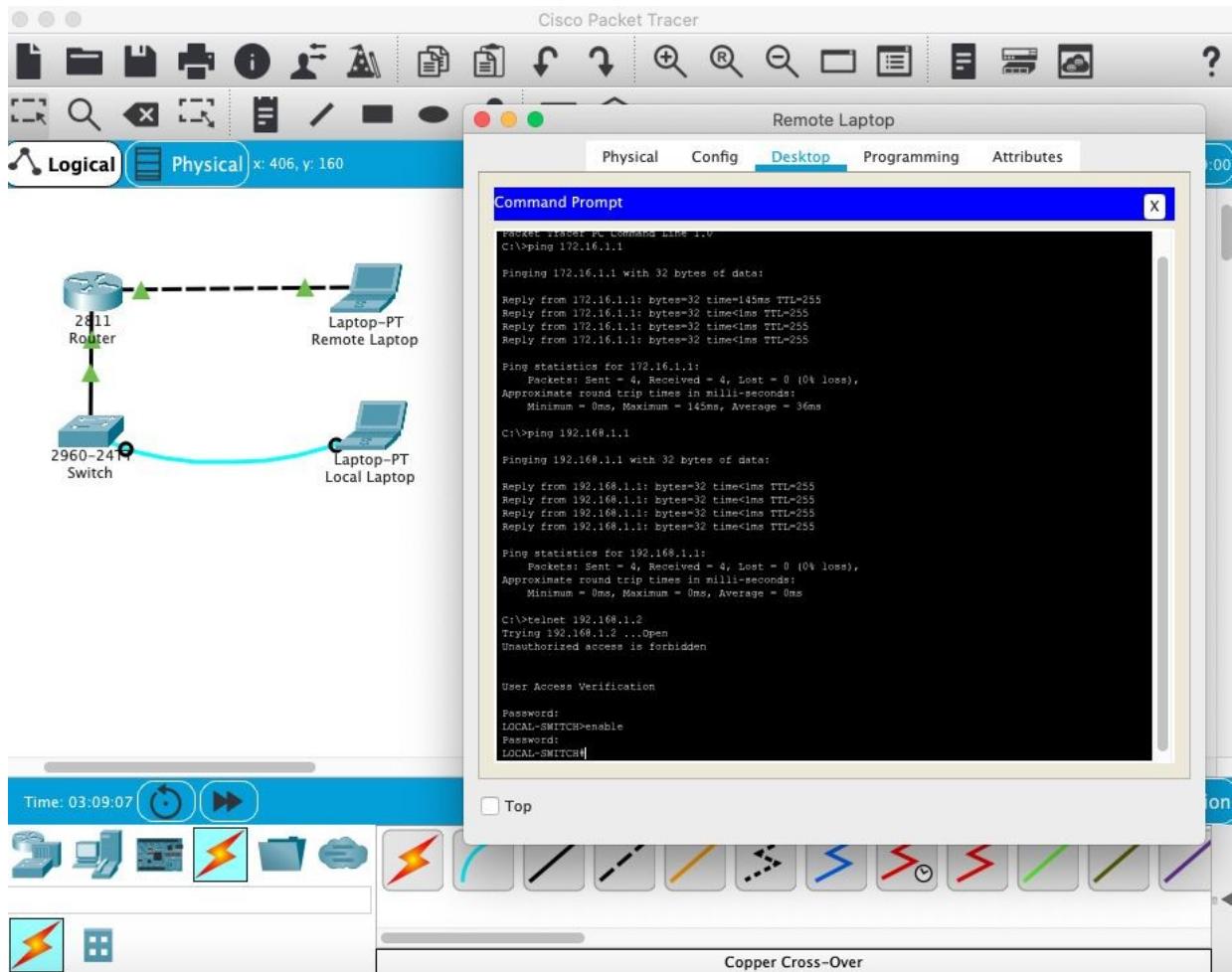




Telnet Switch from Remote Laptop



Enabling switch from Remote Laptop



Conclusion:

1. In this experiment, I learned about setting up a network with Router and Switch.
2. I learned to configure Switch using the console. I understood how to configure the terminal.
3. I configured telnet for switch and checked its connectivity from remote laptop.