Packet Tracer - Implement a Small Network – Brett Rainiel Espiritu

Addressing Table

Device	Interface	Address	Subnet Mask	Default Gateway
RTA	G0/0	10.10.10.1	255.255.255.0	N/A
	G0/1	10.10.20.1	255.255.255.0	N/A
SW1	VLAN1	10.10.10.2	255.255.255.0	10.10.10.1
SW2	VLAN1	10.10.20.2	255.255.255.0	10.10.20.1
PC-1	NIC	10.10.10.10	255.255.255.0	10.10.10.1
PC-2	NIC	10.10.20.10	255.255.255.0	10.10.20.1

Objectives

Part 1: Create the Network Topology

Part 2: Configure Devices and Verify Connectivity

Instructions

Part 1: Create the Network Topology

Step 1: Obtain the required devices.

a. Click the **Network Devices** icon in the bottom tool bar.

b. Click the router icon in the submenu.

c. Locate the **1941** router icon. Click and drag the icon for the 1941 router into the topology area.

d. Click the switch entry in the submenu.

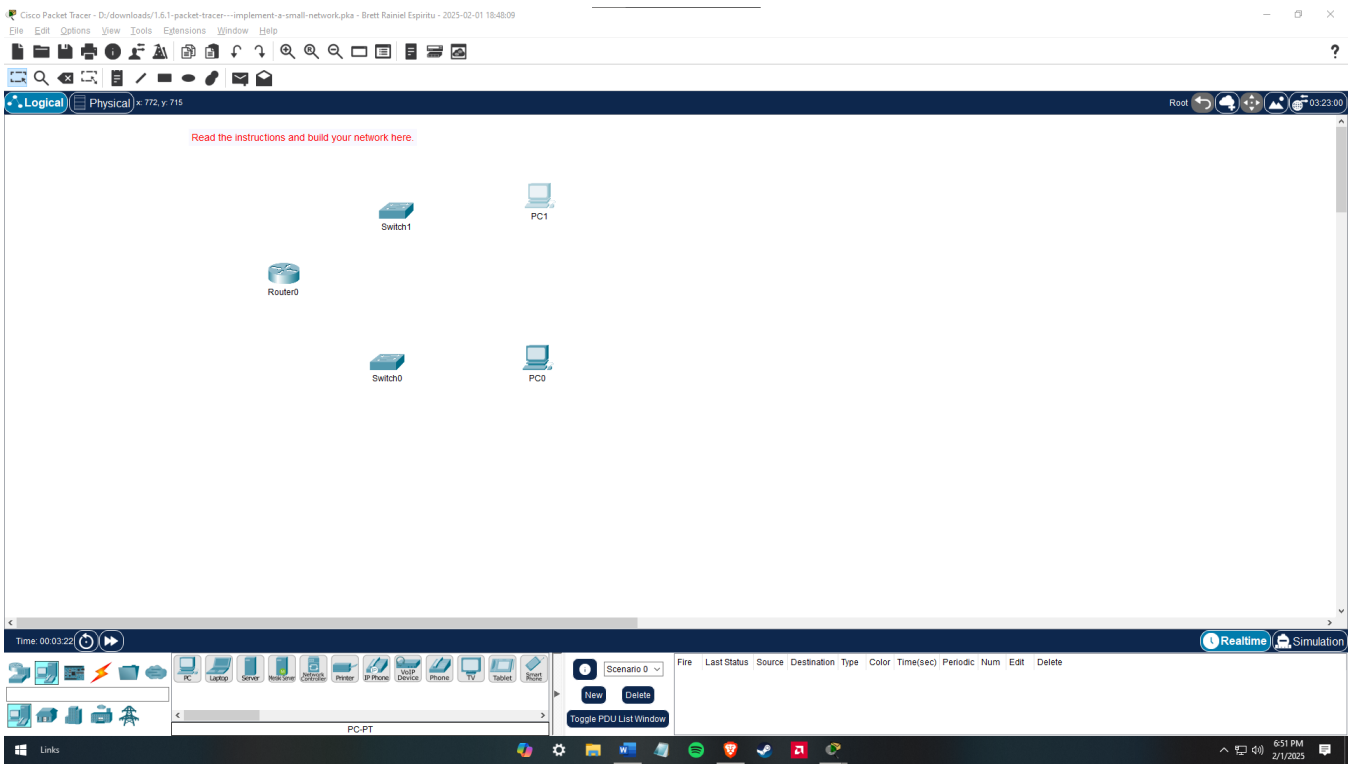
e. Locate the **2960** switch icon. Click and drag the icon for the 2960 switch into the topology area.

f. Repeat the step above so that there are **two** 2960 switches in the topology area.

g. Click the **End Devices** icon.

h. Locate the PC icon. Drag **two** PCs to the topology area.

i. Arrange the devices into a layout that you can work with by clicking and dragging.



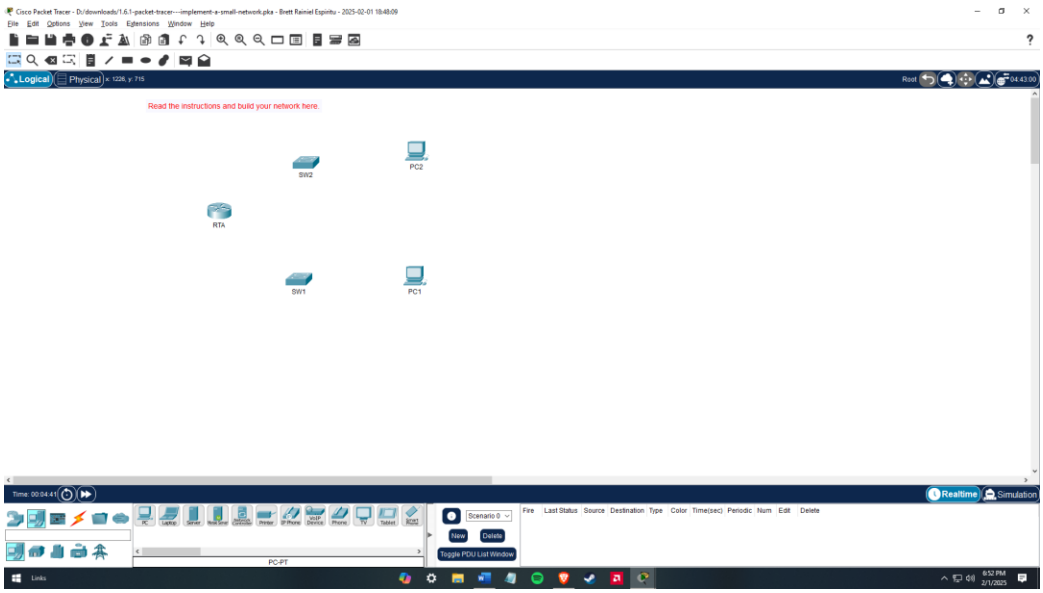
Step 2: Name the devices.

The devices have default names that you will need to change. You will name the devices as shown in the Addressing Table. You are changing the display names of the devices. This is the text label that appears below each device. Your display names must match the information in the Addressing Table **exactly**. If a display name does not match, you will not be scored for your device configuration.

a. Click the device display name that is below the device icon. A text field should appear with a flashing insertion point. If the configuration window for the device appears, close it and try again, clicking a little further away from the device icon.

b. Replace the current display name with the appropriate display name from the Addressing Table.

c. Repeat until all devices are named.



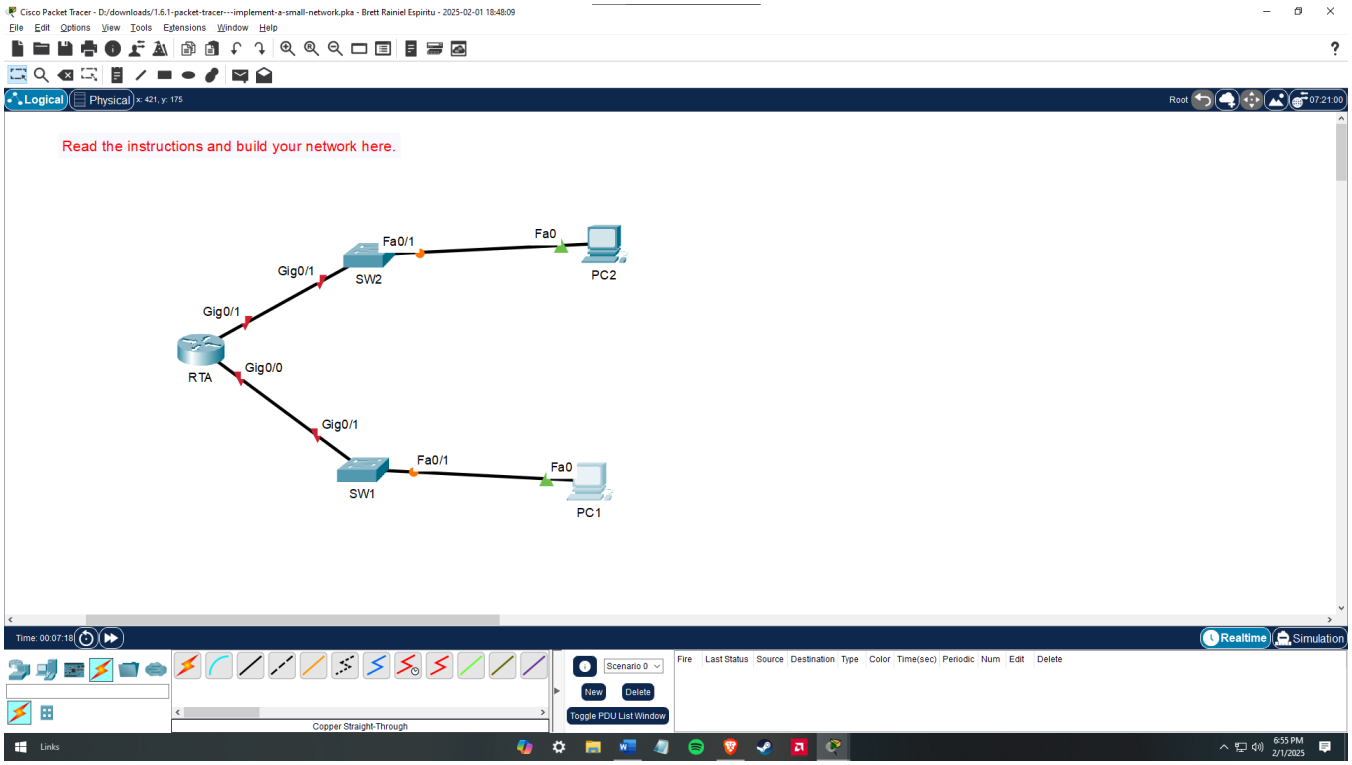
Step 3: Connect the devices.

a. Click the orange lightning bolt connections icon in the bottom toolbar.

b. Locate the Copper Straight-Through cable icon. It looks like a solid black diagonal line.

c. To connect the device, click the Copper Straight-Through cable icon and then click the first device that you want to connect. Select the correct port and then click the second device. Select the correct port and the devices will be connected.

d. Connect the devices as specified in the table below.



From Device	Port	To Device	Port
RTA	G0/0	SW1	G0/1
	G0/1	SW2	G0/1
SW1	F0/1	PC-1	Fastethernet0
SW2	F0/1	PC-2	Fastethernet0

Part 2: Configure Devices

Record the PC addressing and gateway addresses in the addressing table. You can use any available address in the network for PC-1 and PC-2.

Step 1: Configure the router.

a. Configure basic settings.

1) Hostname as shown in the Addressing Table.

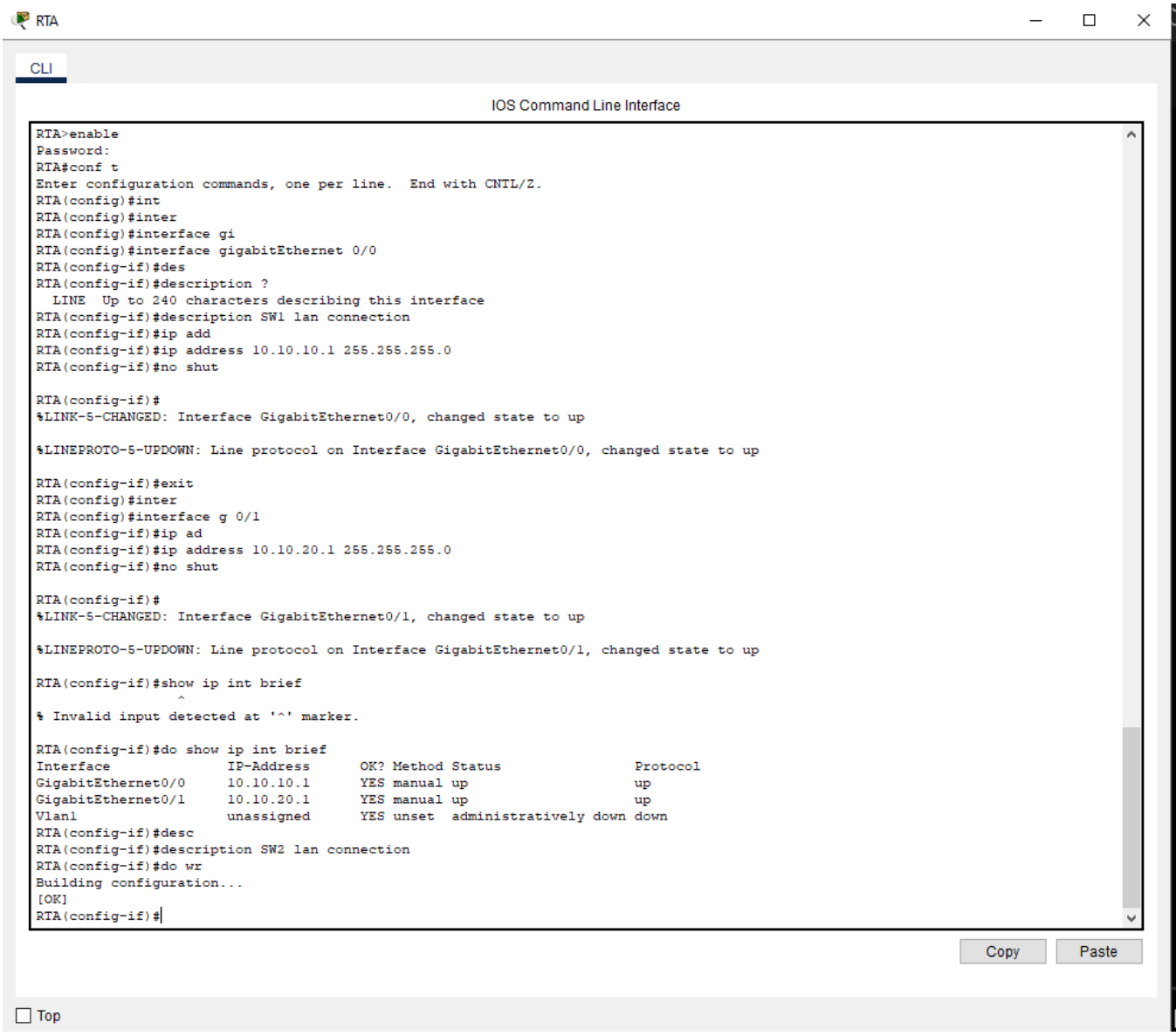
2) Configure **Ciscoenpa55** as the encrypted password.

3) Configure **Ciscolinepa55** as the password on the lines.

4) All lines should accept connections.
5) Configure an appropriate message of the day banner.

b. Configure interface settings.

1) Addressing.
2) Descriptions on the interfaces.
3) Save your configuration.



Step 2: Configure switch SW1 and SW2.

a. Configure the default management interface so that it will accept connections over the network from local and remote hosts. Use the values in the addressing table.

b. Configure an encrypted password using the value in step 1a above.

c. Configure all lines to accept connections using the password from step 1a above.

d. Configure the switches so that they can send data to hosts on remote networks.

e. Save your configuration.

```
!
interface Vlan1
 ip address 10.10.20.2 255.255.255.0
!
ip default-gateway 10.10.20.1
!
!
!
!
line con 0
 password Ciscolinepa55
 login
!
line vty 0 4
 password Ciscolinepa55
 login
line vty 5 15
 password Ciscolinepa55
 login
!
!
!
!
end


SW2#
```

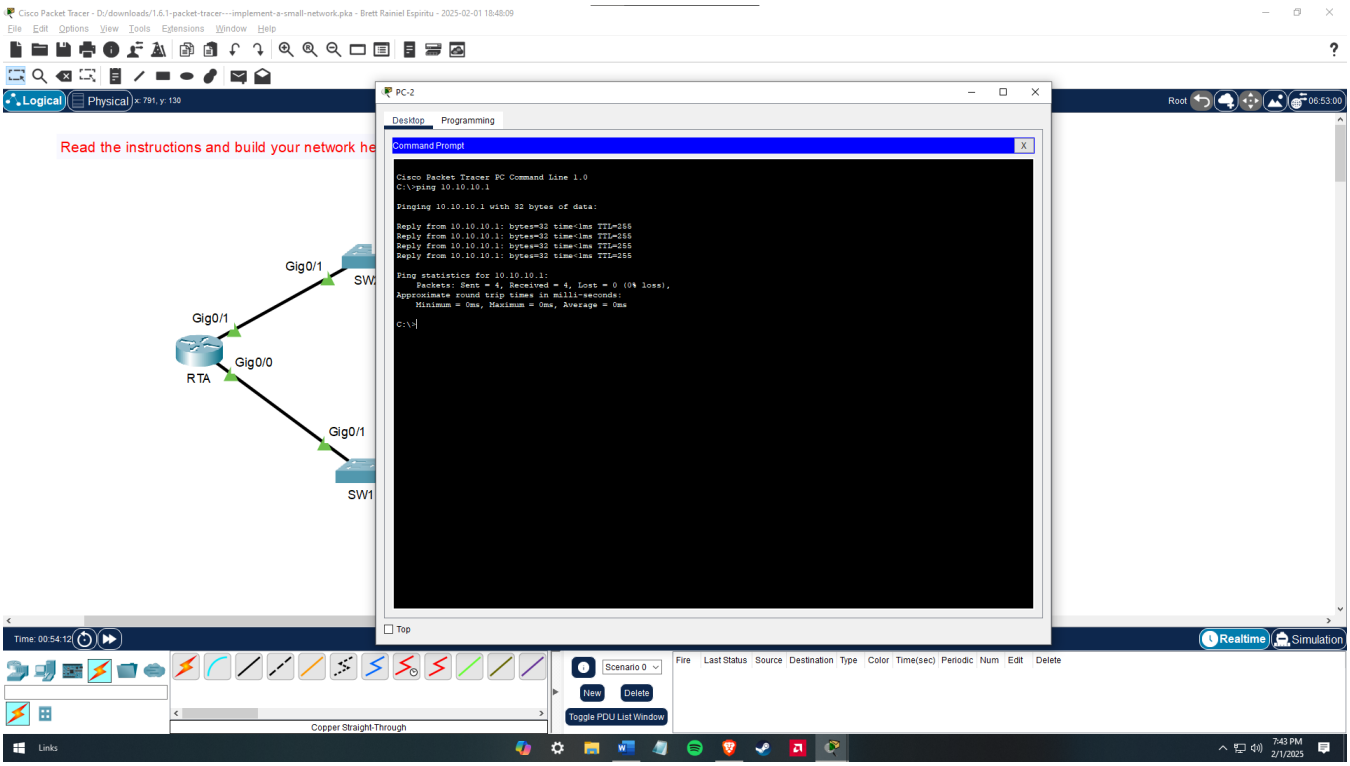
```
!
interface GigabitEthernet0/2
!
interface Vlan1
 ip address 10.10.10.2 255.255.255.0
!
ip default-gateway 10.10.10.1
!
!
!
!
line con 0
 password Ciscolinepa55
 login
!
line vty 0 4
 password Ciscolinepa55
 login
line vty 5 15
 password Ciscolinepa55
 login
!
!
!
!
end


SW1(config)#
```

```
!
version 15.0
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname SW1
!
enable secret 5 $1$mERr$Amm/da5NtiazLuZDbgqZ60
!
!
!
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
!
interface FastEthernet0/1
!
interface FastEthernet0/2
!
interface FastEthernet0/3
!
interface FastEthernet0/4
!
interface FastEthernet0/5
!
interface FastEthernet0/6
!
interface FastEthernet0/7
!
interface FastEthernet0/8
!
interface FastEthernet0/9
!
```

Configure the hosts.

Configure addressing on the hosts. If your configurations are complete, you should be able to ping all devices in the topology

PC2 TO RTA



PC2 TO SW1

```
C:\>ping 10.10.10.2

Pinging 10.10.10.2 with 32 bytes of data:

Request timed out.
Request timed out.
Reply from 10.10.10.2: bytes=32 time<1ms TTL=254
Reply from 10.10.10.2: bytes=32 time<1ms TTL=254

Ping statistics for 10.10.10.2:
    Packets: Sent = 4, Received = 2, Lost = 2 (50% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

PC2 TO SW2

```
C:\>ping 10.10.20.2

Pinging 10.10.20.2 with 32 bytes of data:

Request timed out.
Reply from 10.10.20.2: bytes=32 time<1ms TTL=255
Reply from 10.10.20.2: bytes=32 time=5ms TTL=255
Reply from 10.10.20.2: bytes=32 time<1ms TTL=255

Ping statistics for 10.10.20.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 5ms, Average = 1ms

C:\>
```

PC2 TO PC1