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| **LAPORAN PRAKTIKUM JARINGAN KOMPUTER**  **1.6.1**  **PACKET TRACER – IMPLEMENT A SMALL NETWORK** |
|  |
| **Agus Pranata Marpaung**  **13323033**  **DIII TEKNOLOGI KOMPUTER** |
| **INSTITUT TEKNOLOGI DEL**  **FAKULTAS VOKASI** |

**Judul Praktikum**

|  |  |  |
| --- | --- | --- |
| **Minggu/Sesi** | : | IX/2 |
| **Kode Mata Kuliah** | : | 4332101 |
| **Nama Mata Kuliah** | : | JARINGAN KOMPUTER |
| **Setoran** | : | Jawaban dalam bentuk *softcopy* |
| **Batas Waktu Setoran** | : | *Sesi Praktikum Selanjutnya* |
| **Tujuan** | : | 1. Mahasiswa dapat mengimplementasikan sebuah jaringan komputer dalam skala kecil pada simulator. |

**Petunjuk**



**Packet Tracer - Implement a Small Network**

# Addressing Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Device** | **Interface** | **Address** | **Subnet Mask** | **Default Gateway** |
| RTA  *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 | *blank* |
| SW2 | VLAN1 | 10.10.20.2 | 255.255.255.0 | *blank* |
| PC-1 | NIC | *blank* | 255.255.255.0 | *blank* |
| PC-2 | NIC | *blank* | 255.255.255.0 | *blank* |

# Objectives

**Part 1: Create the Network Topology**

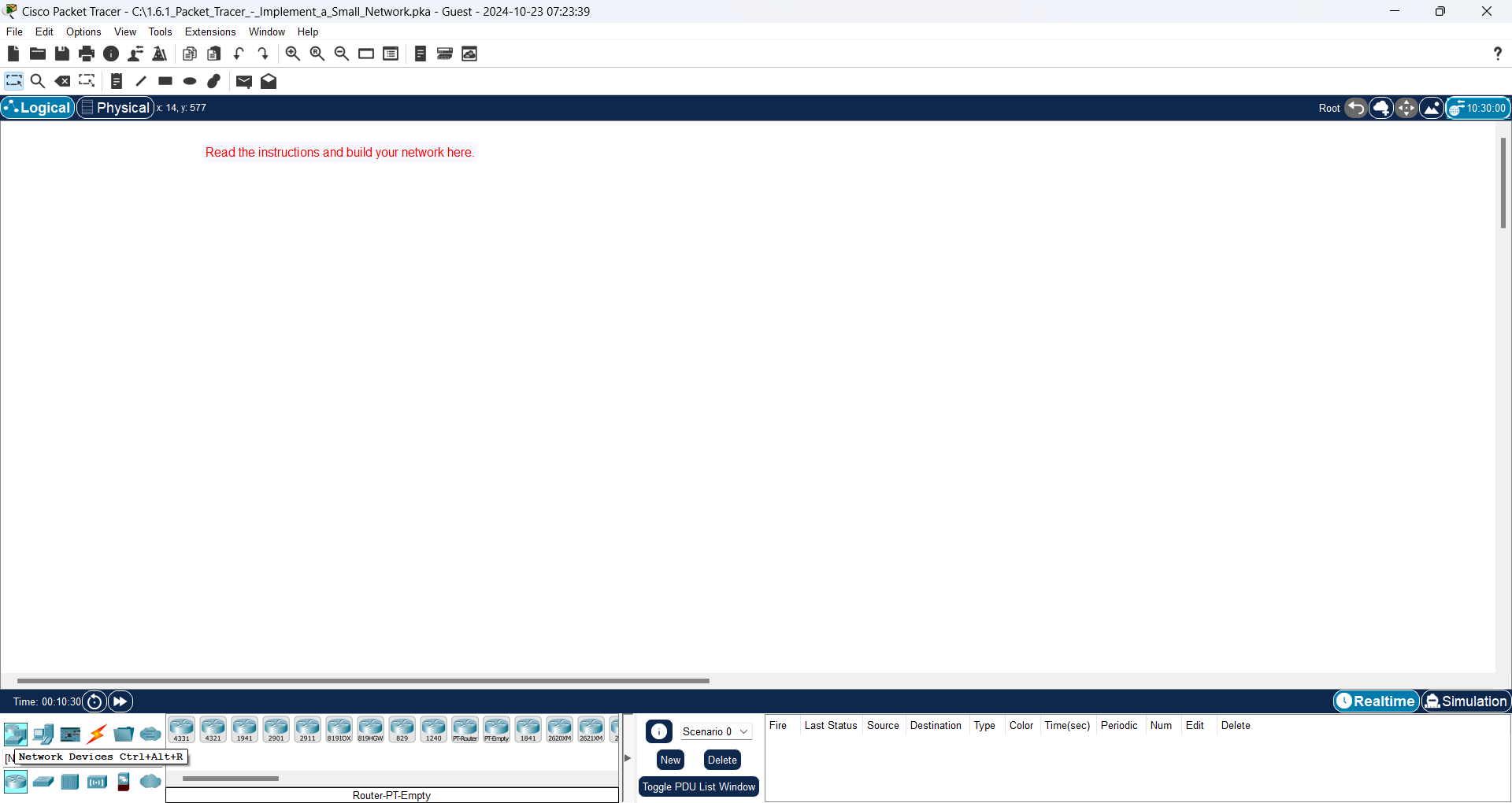
**Part 2: Configure Devices and Verify Connectivity**

# Instructions

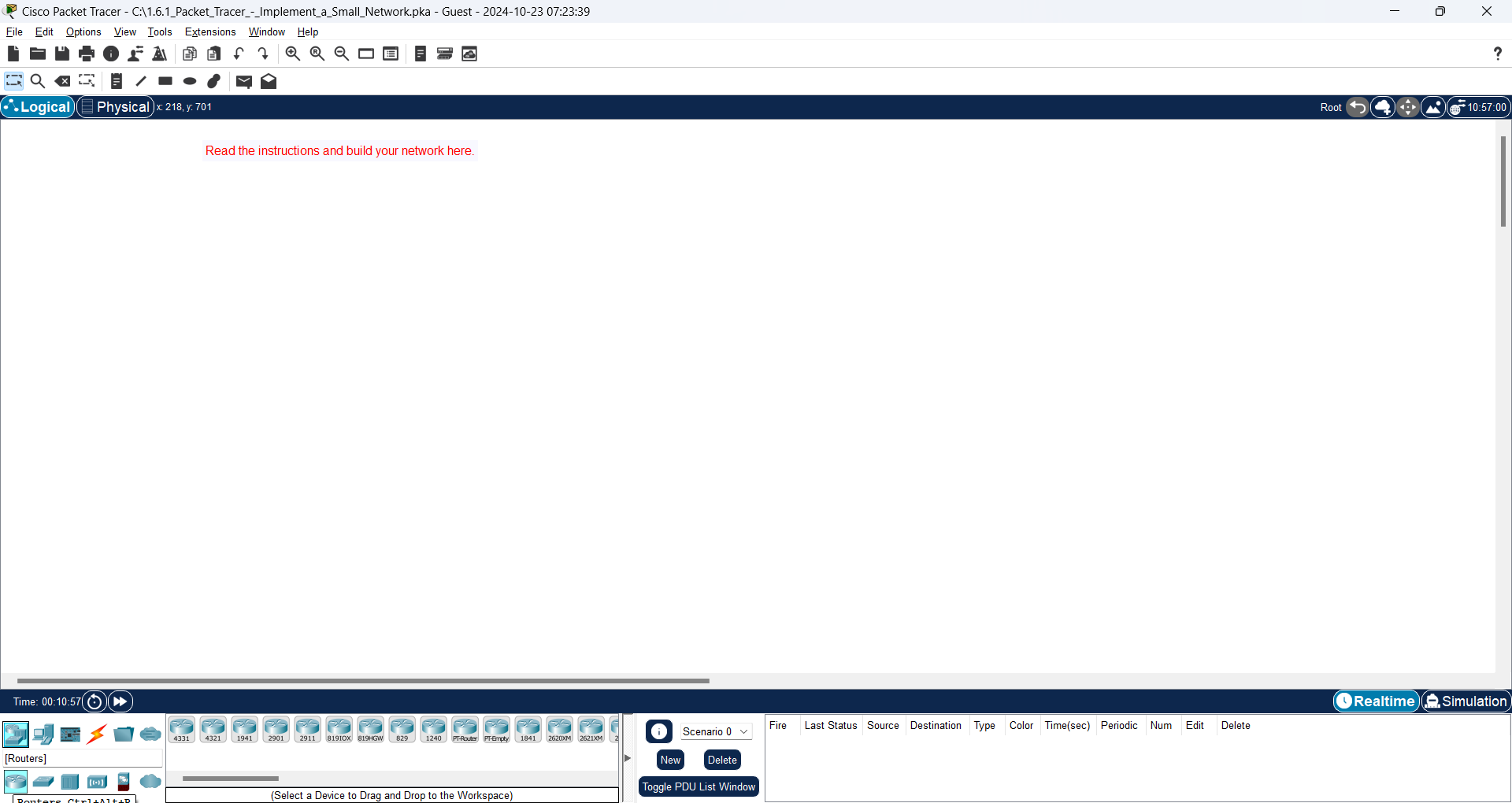
**Part 1: Create the Network Topology**

**Step 1: Obtain the required devices.**

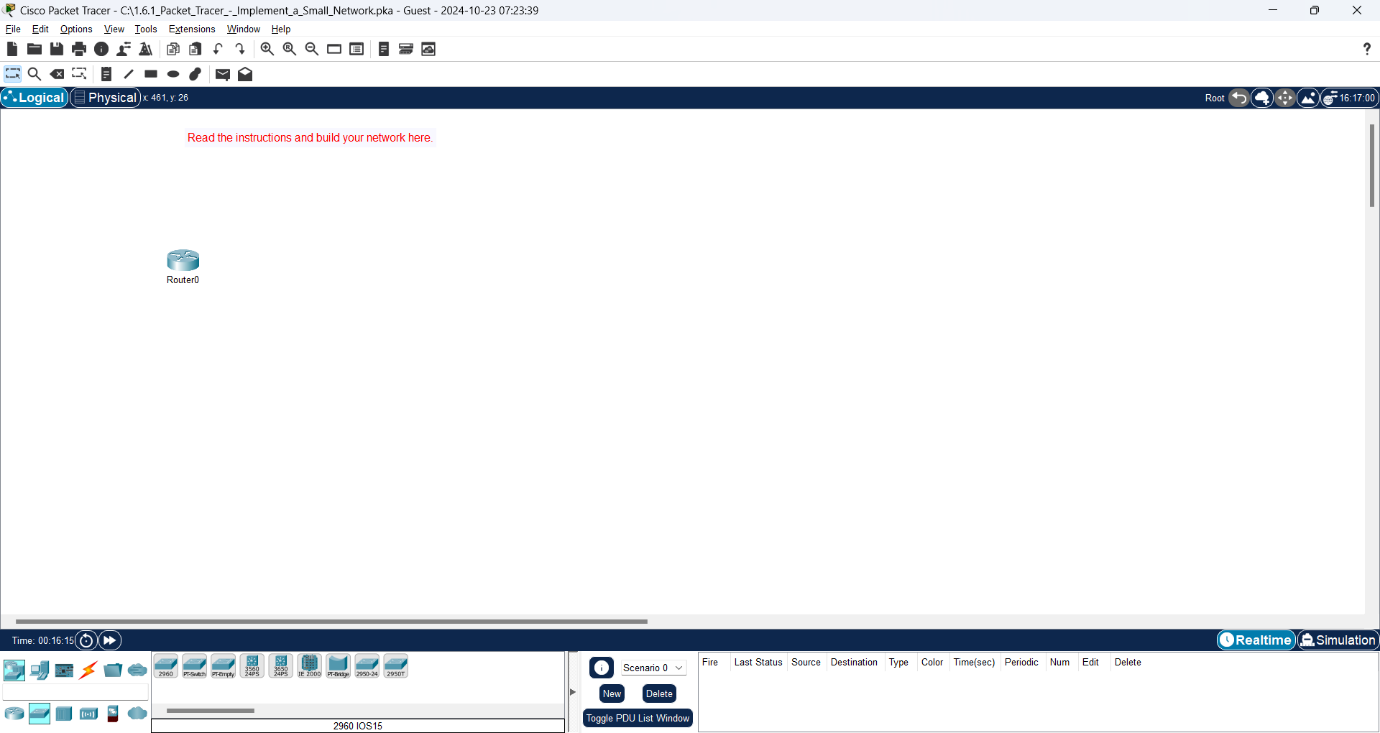
1. Click the **Network Devices** icon in the bottom tool bar.



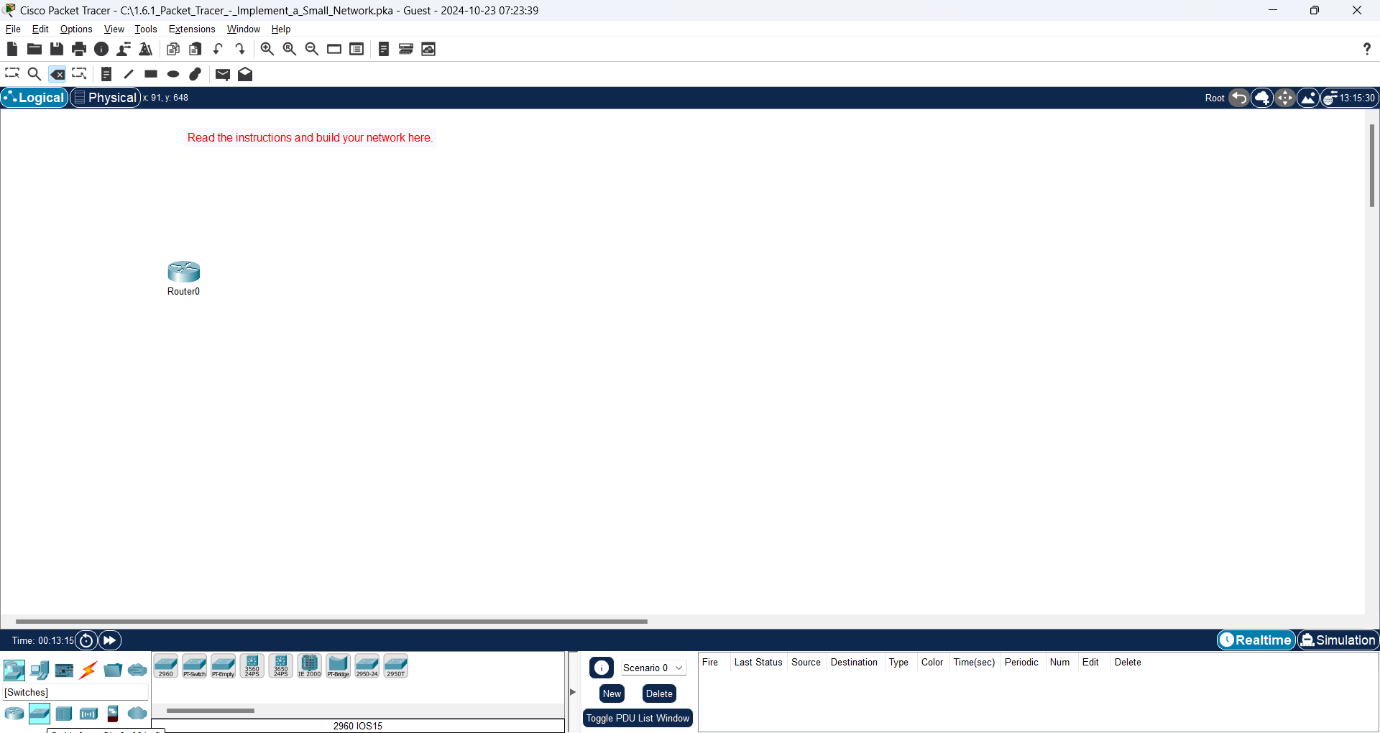
1. Click the router icon in the submenu.



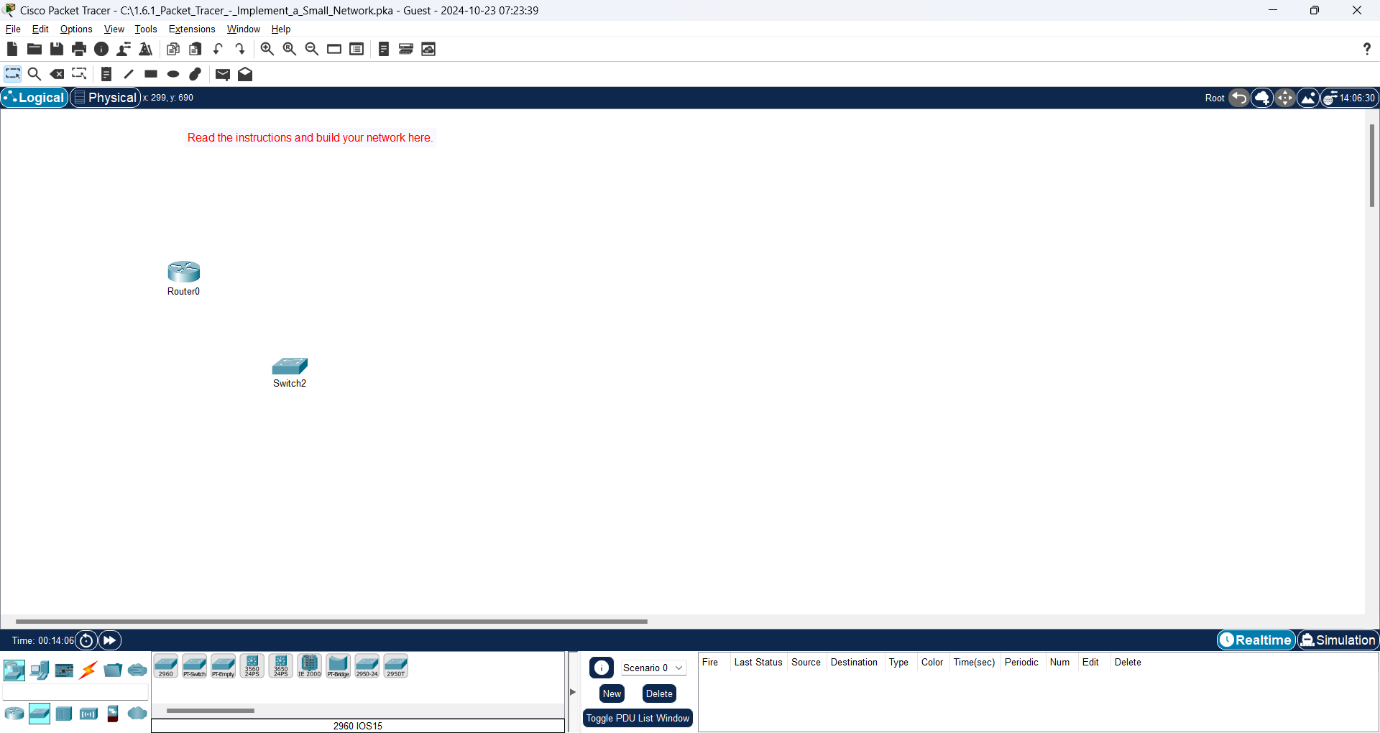
1. Locate the **1941** router icon. Click and drag the icon for the 1941 router into the topology area.



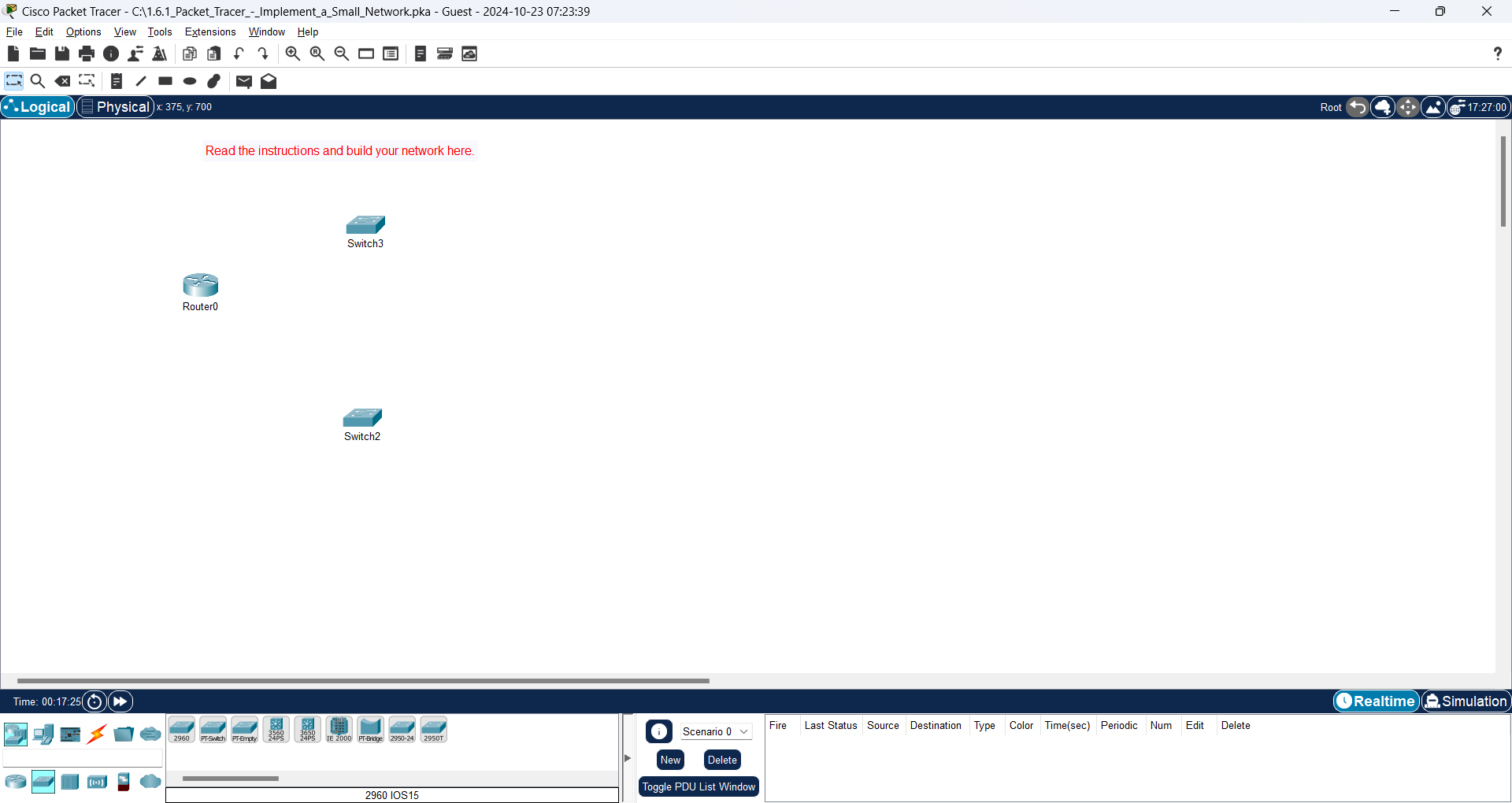
1. Click the switch entry in the submenu.



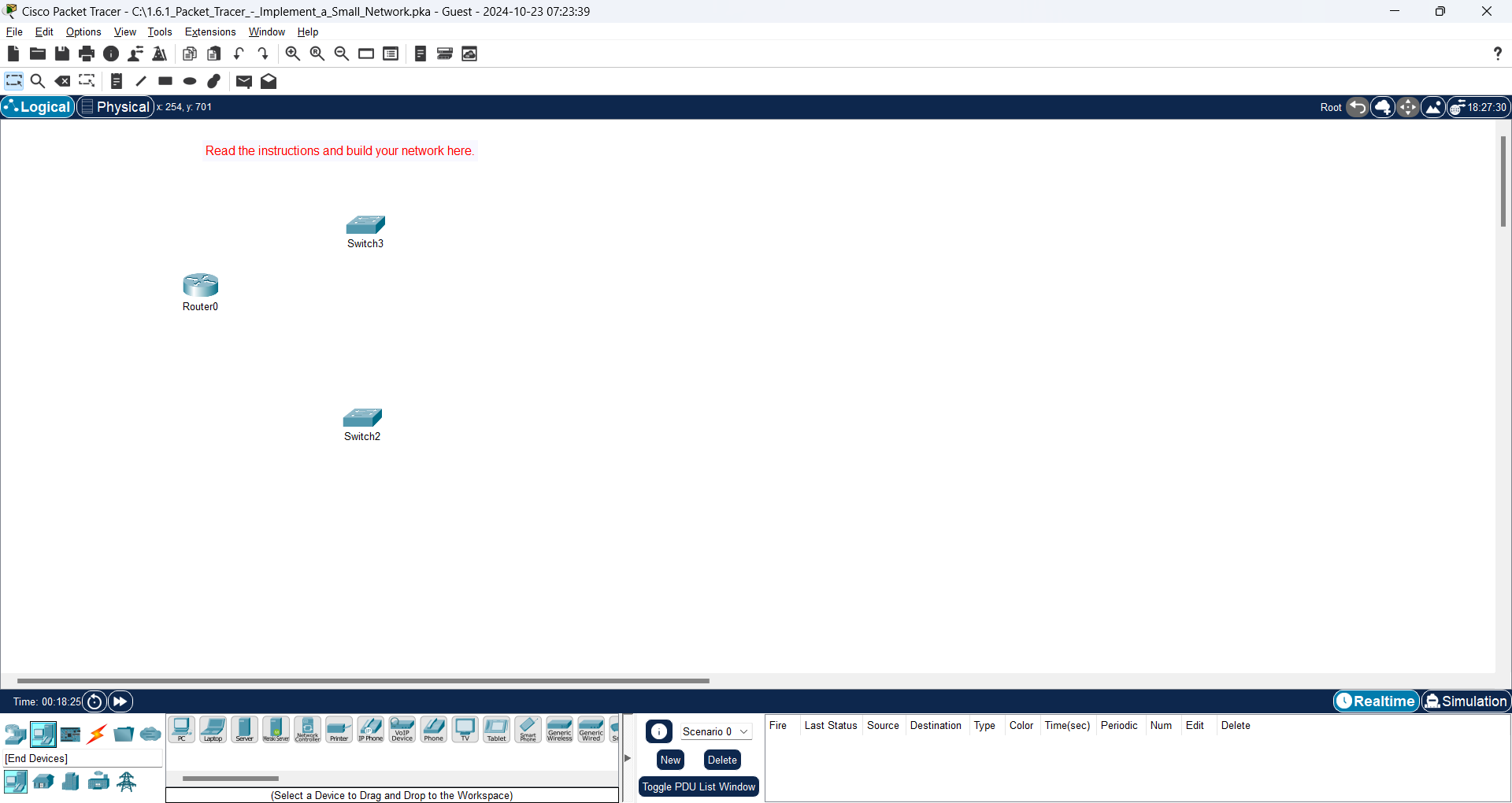
1. Locate the **2960** switch icon. Click and drag the icon for the 2960 switch into the topology area.



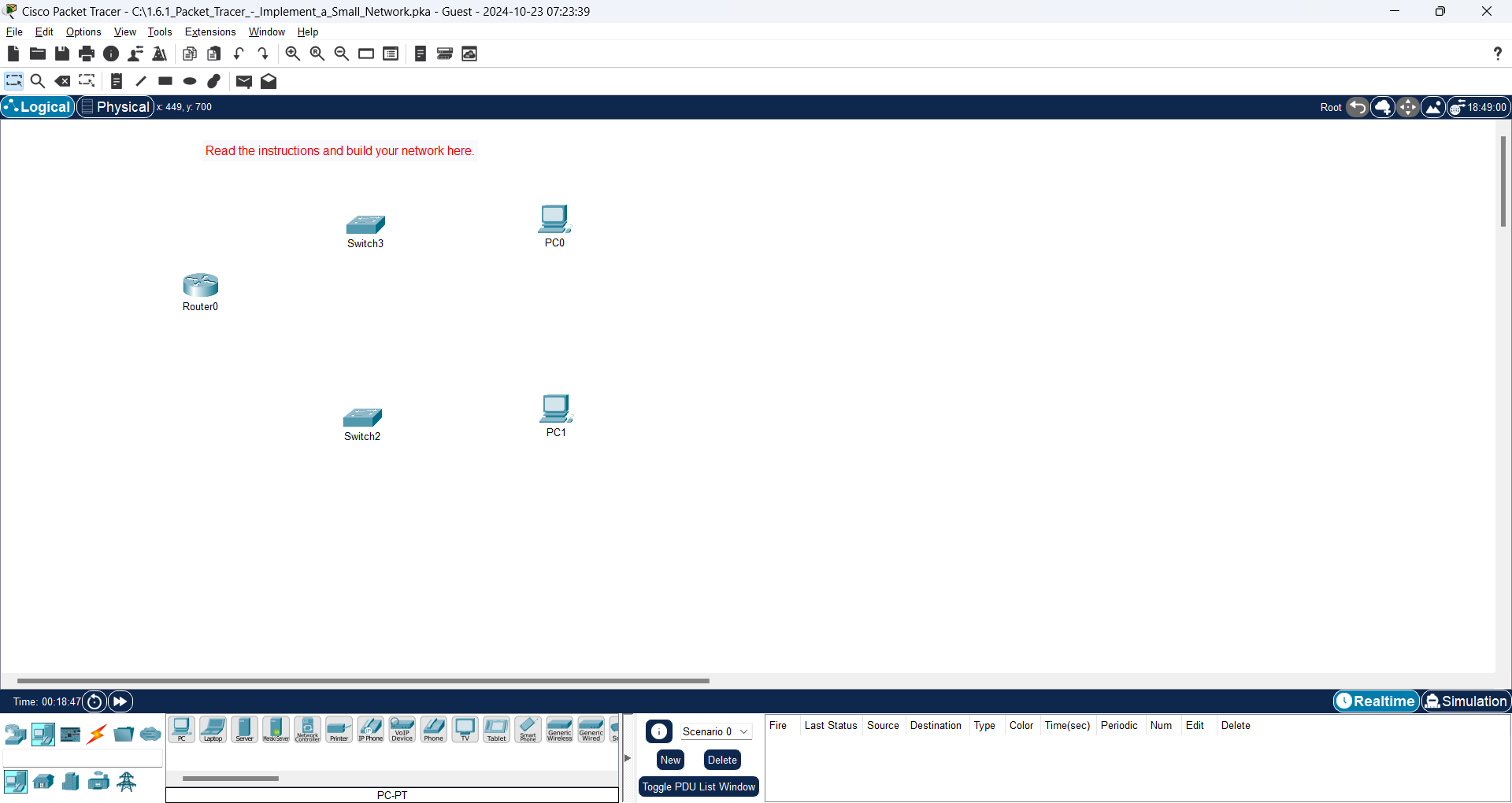
1. Repeat the step above so that there are **two** 2960 switches in the topology area.



1. Click the **End Devices** icon.



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

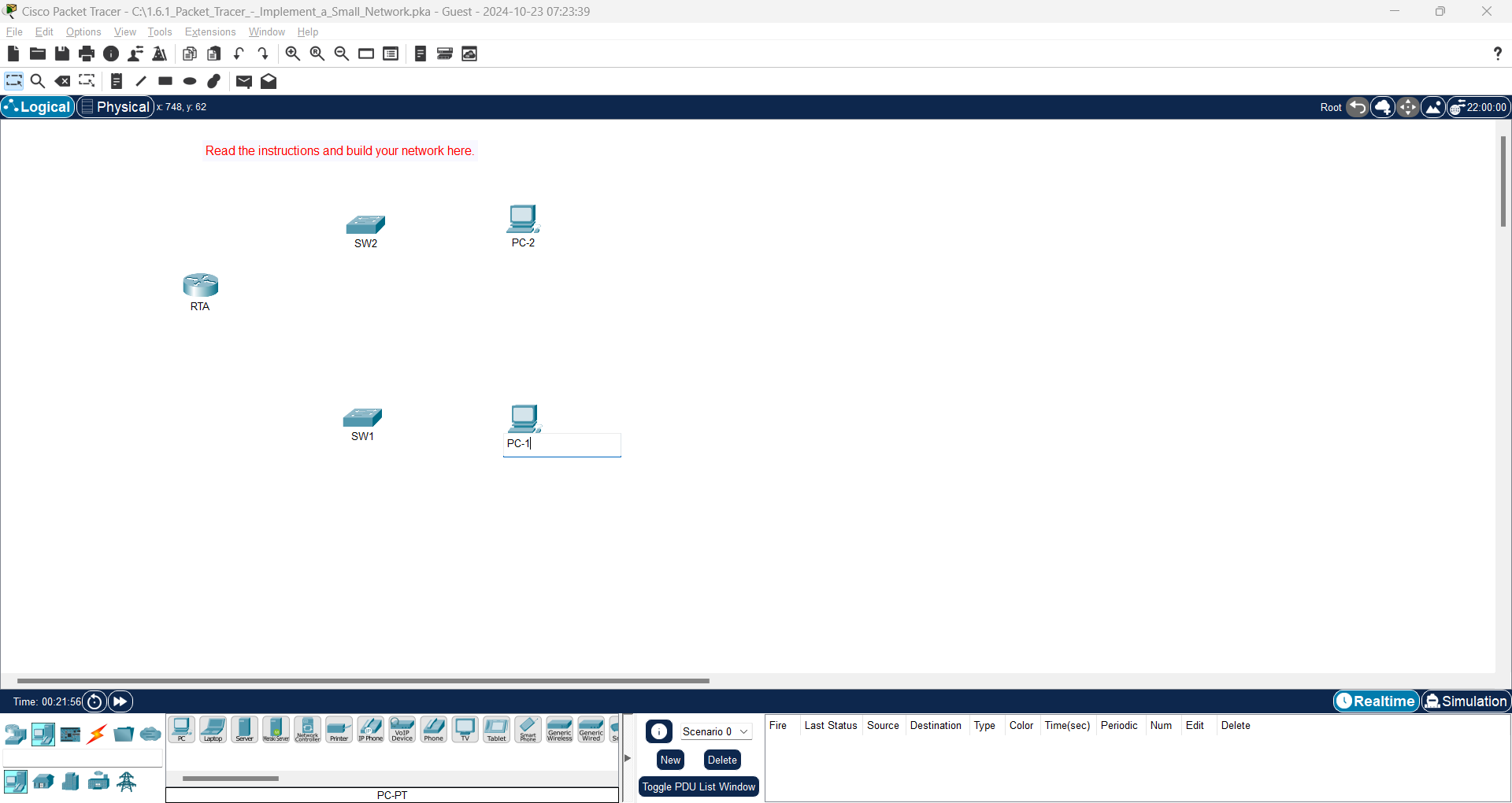


1. Arrange the devices into a layout that you can work with by clicking and dragging.

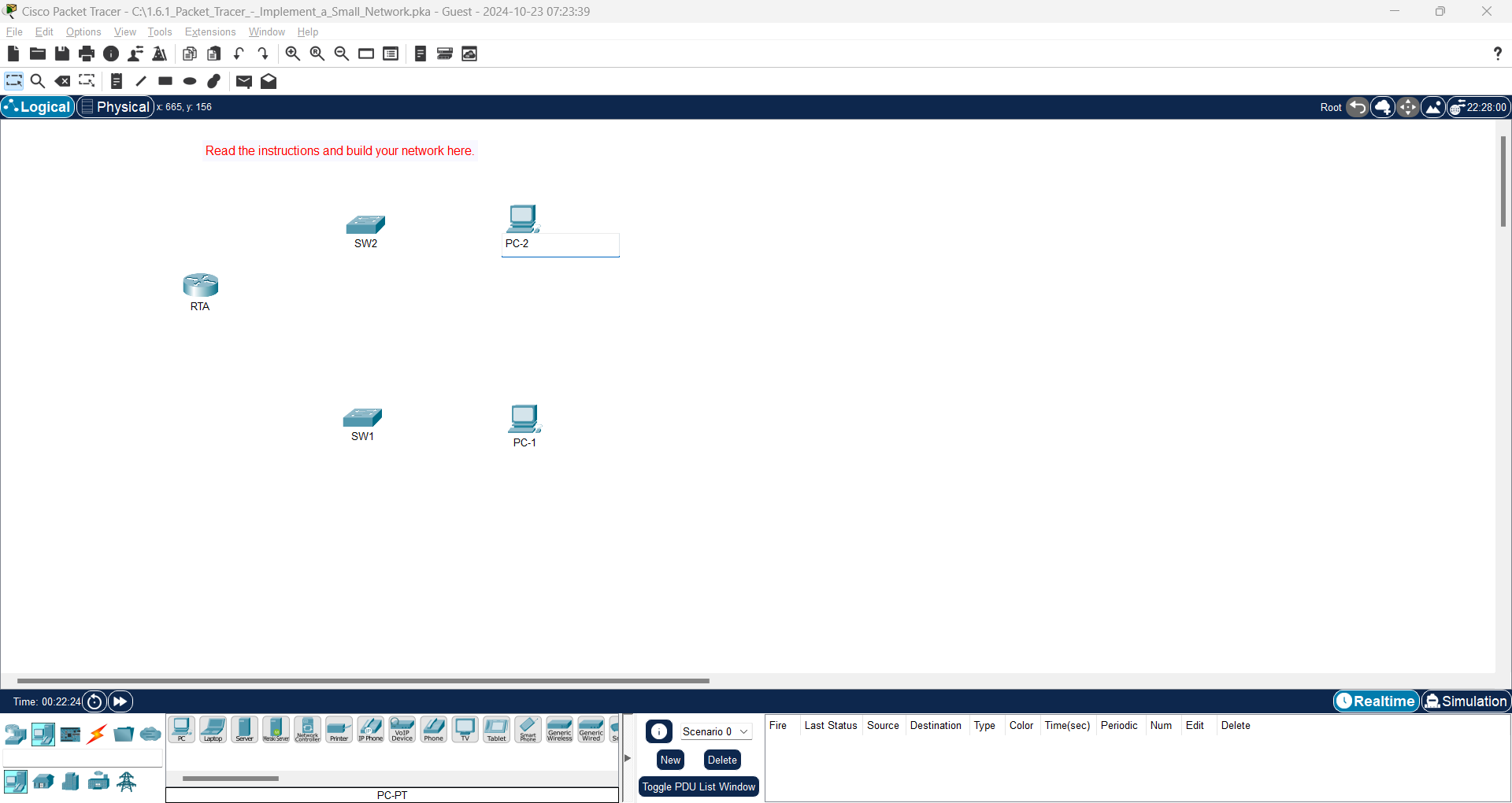
**Step 2: Name the devices.**

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.

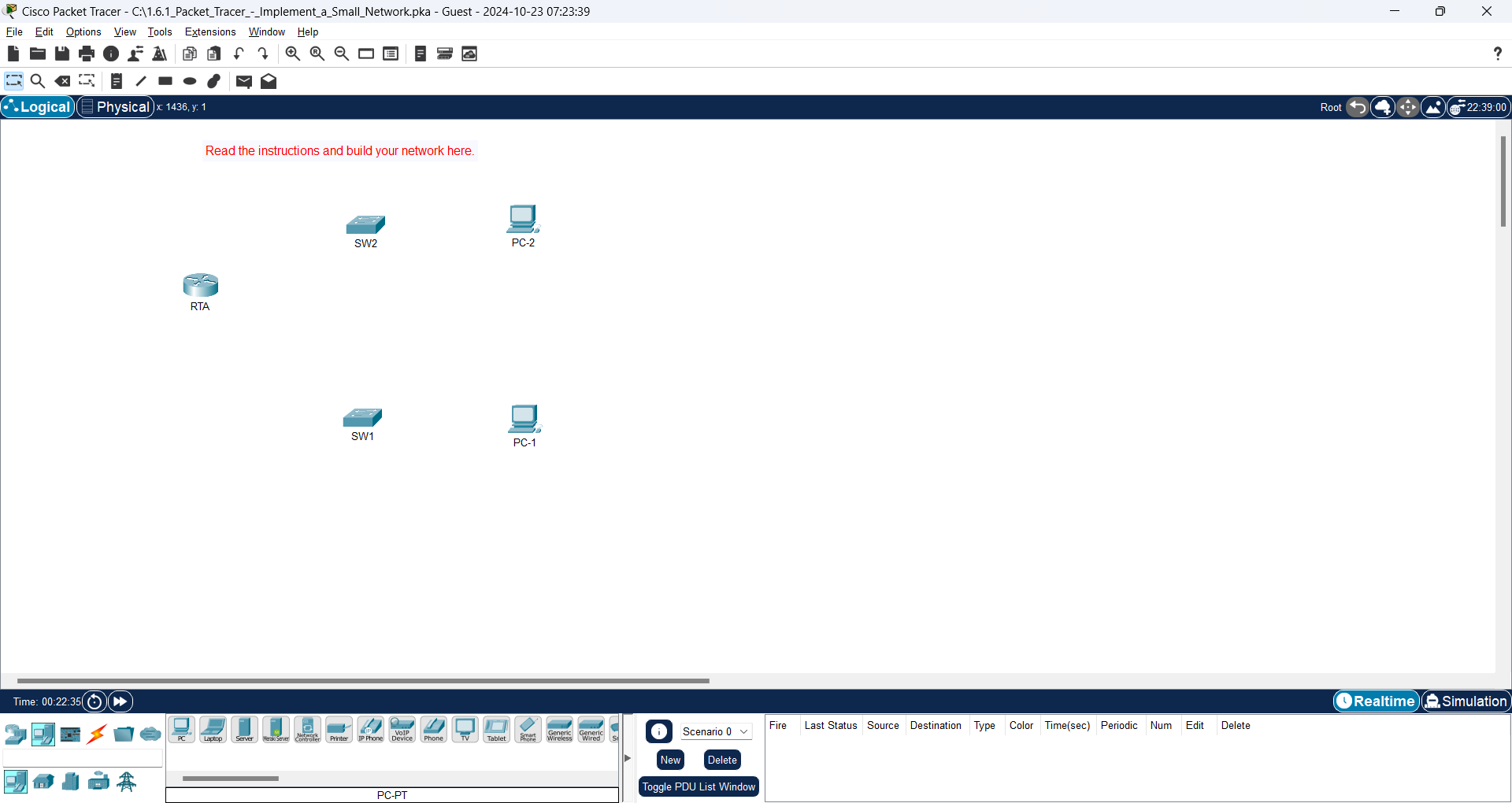
1. Click the device display name that is below the device icon. A text field should appear with a flashing insertion point. If the configuration window for the device appears, close it and try again, clicking a little further away from the device icon.



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

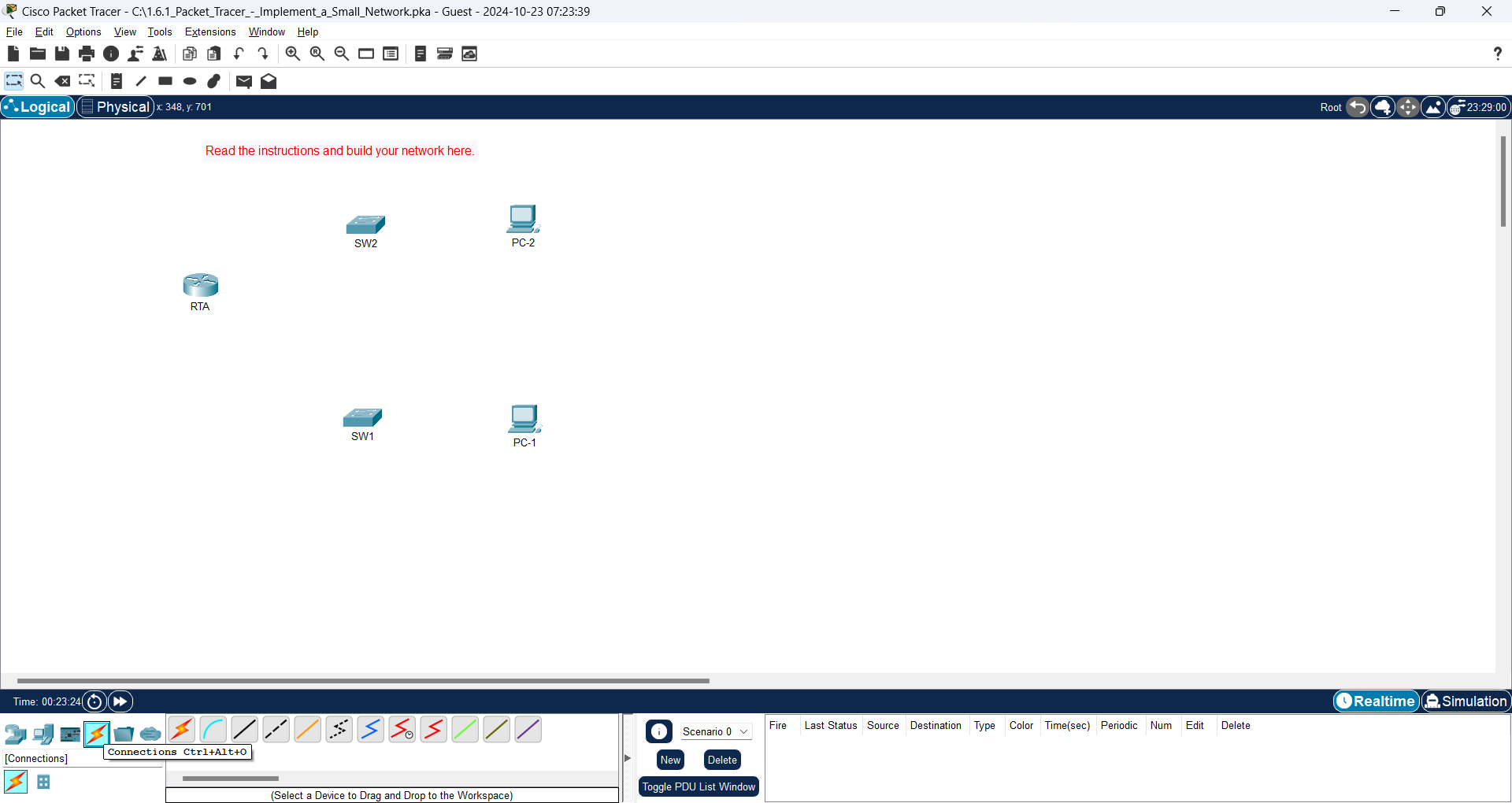


1. Repeat until all devices are named.

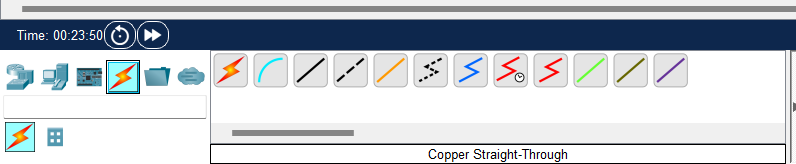


**Step 3: Connect the devices.**

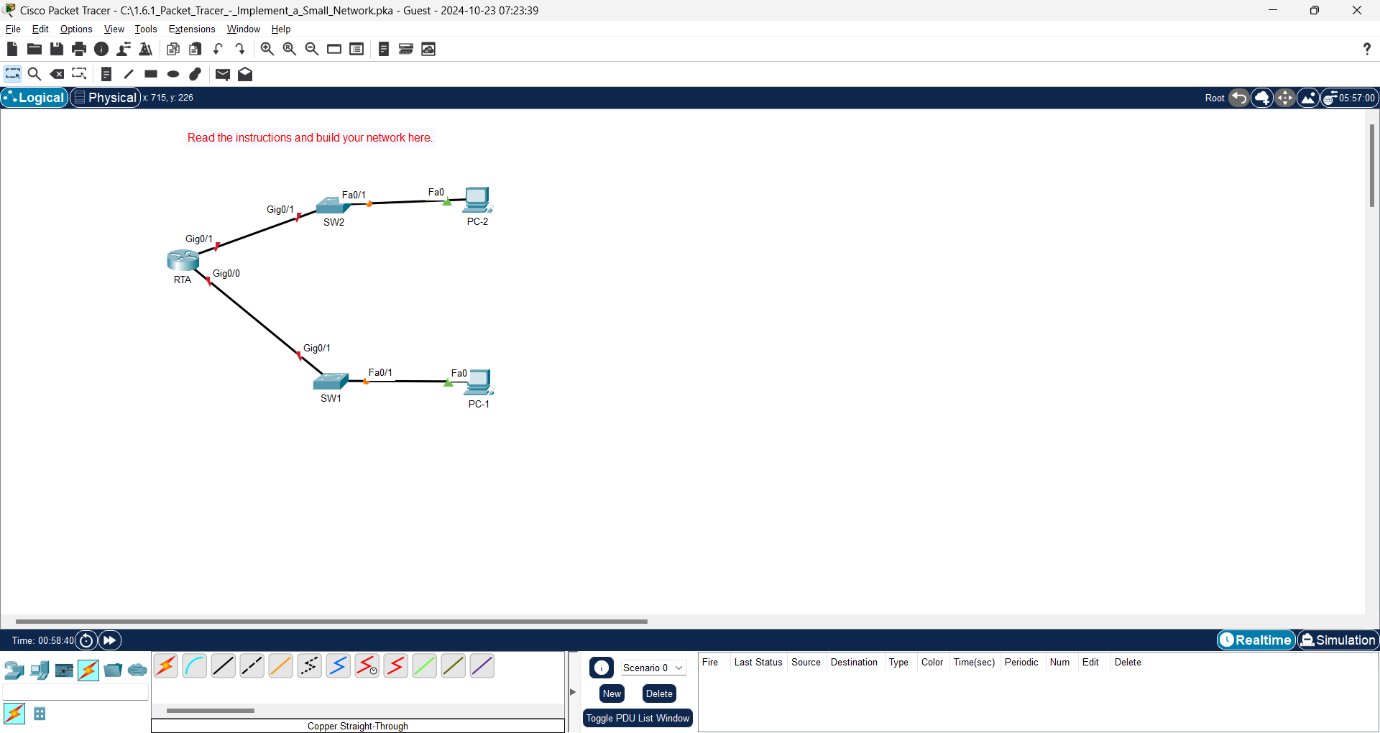
1. Click the orange lightning bolt connections icon in the bottom toolbar.



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



1. 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.



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

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

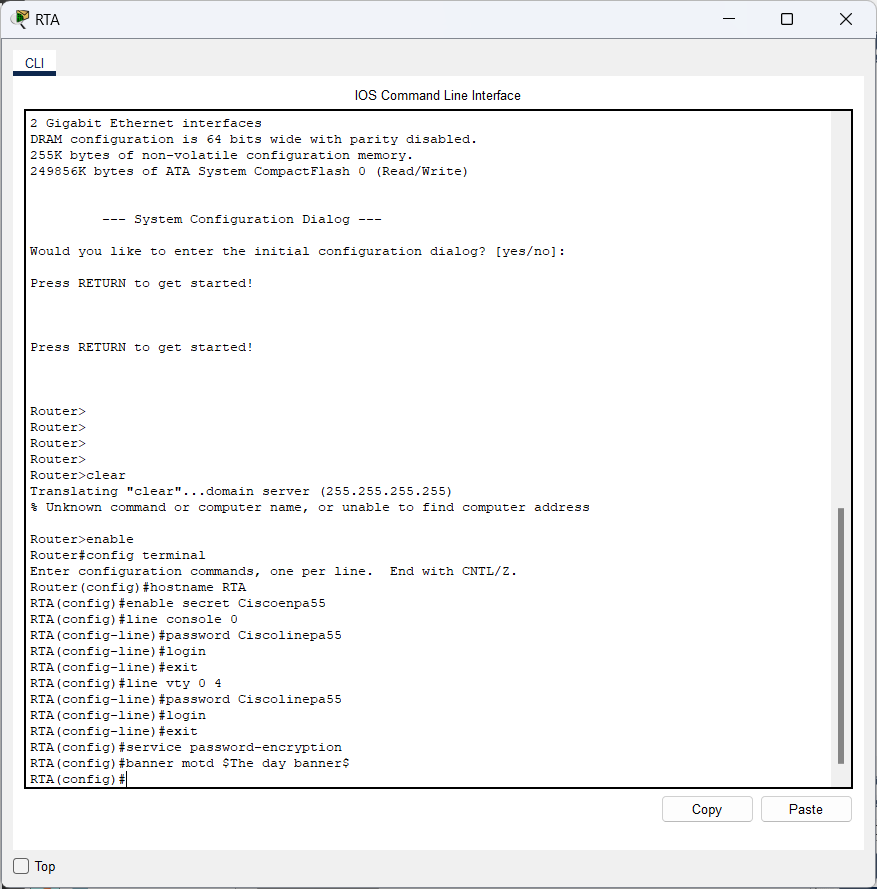
# Part 2: Configure Devices

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.

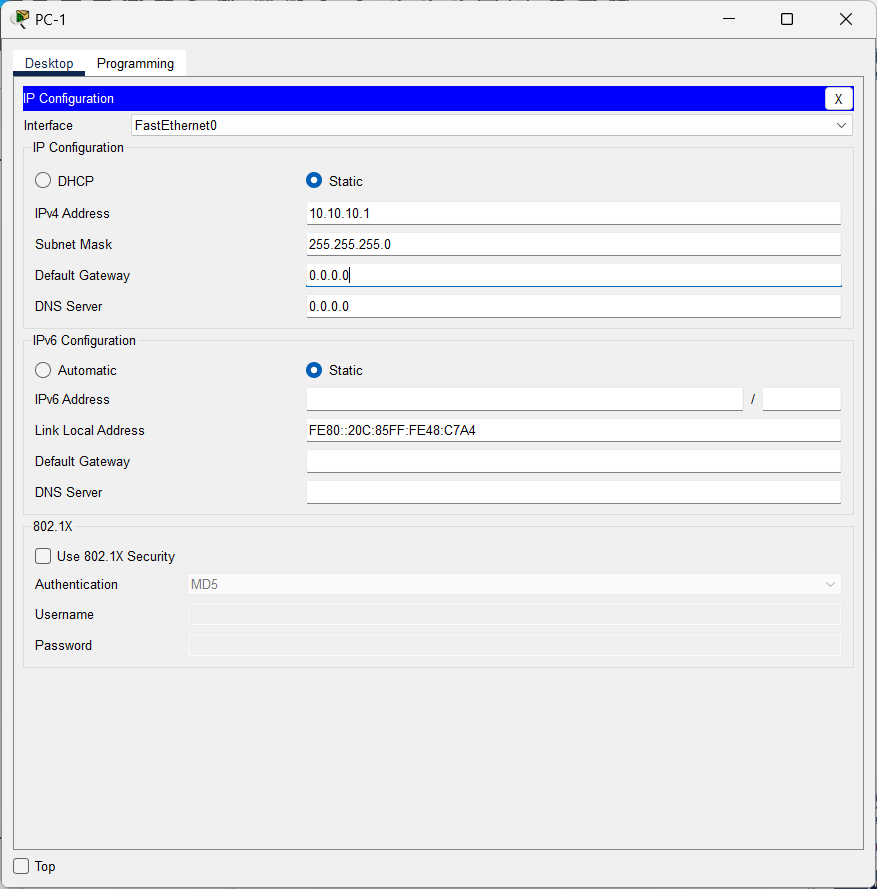
**Step 1: Configure the router.**

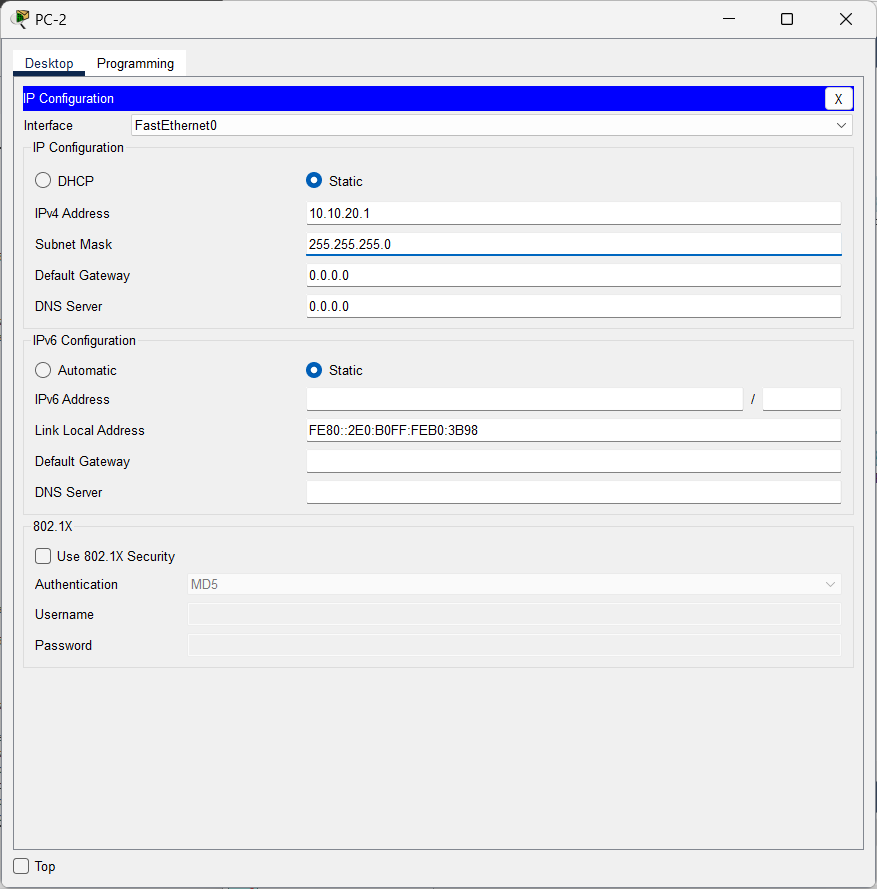
*Open configuration window*

1. 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.

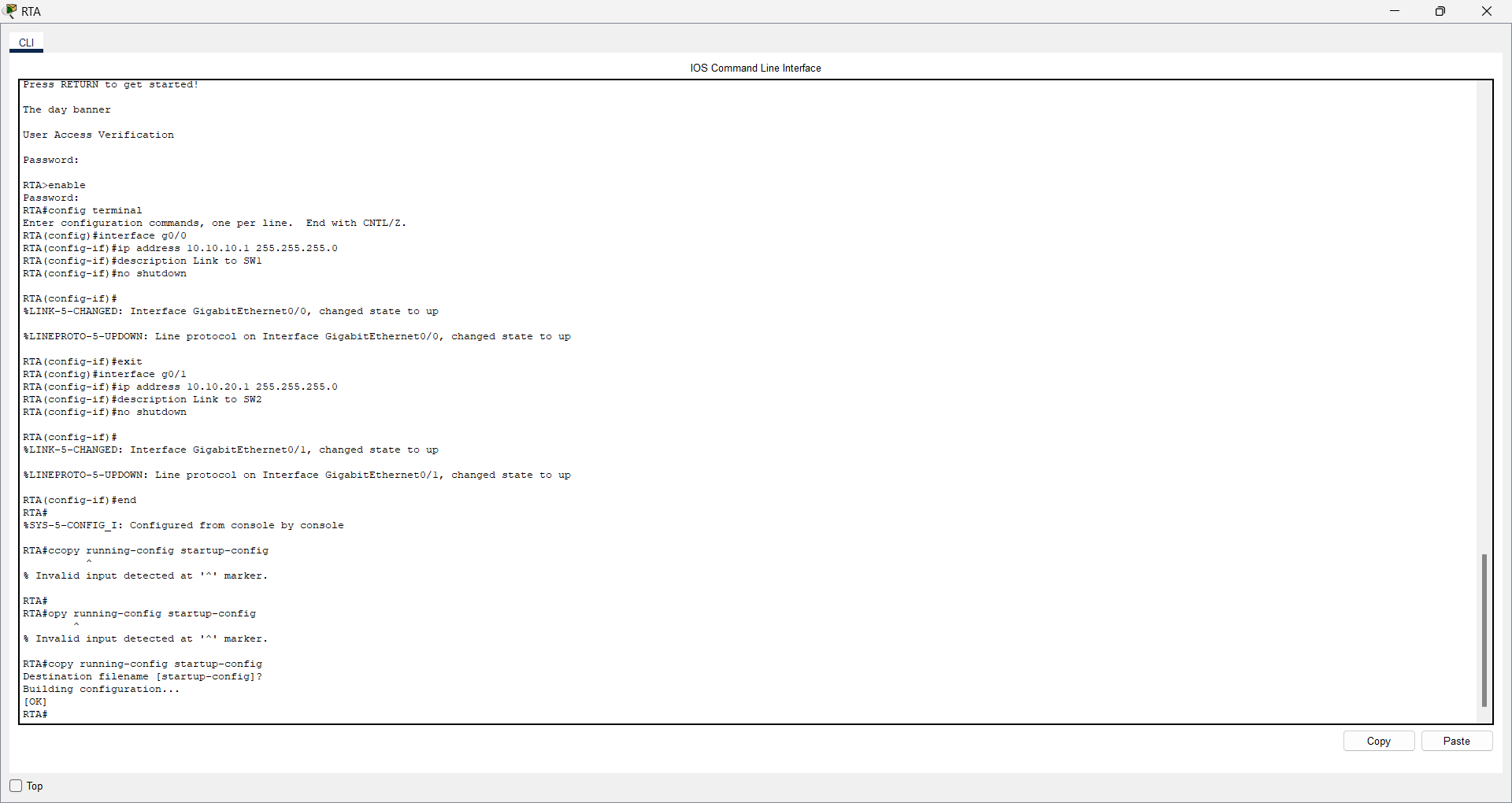


1. Configure interface settings.
   1. Addressing.





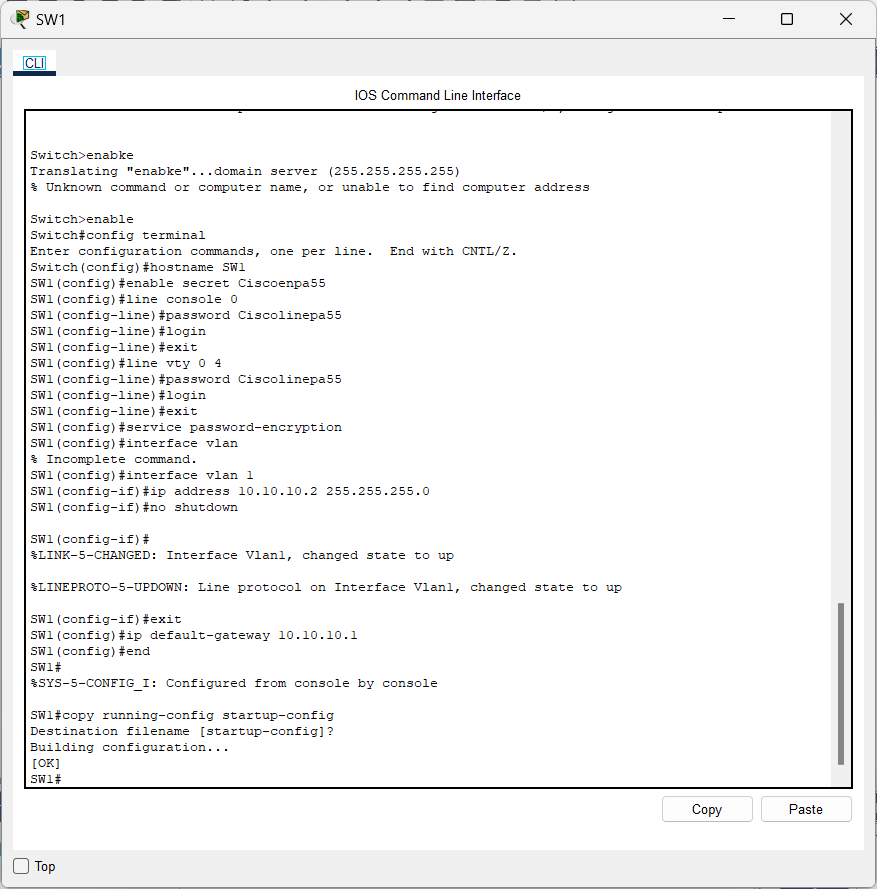
* 1. Descriptions on the interfaces.

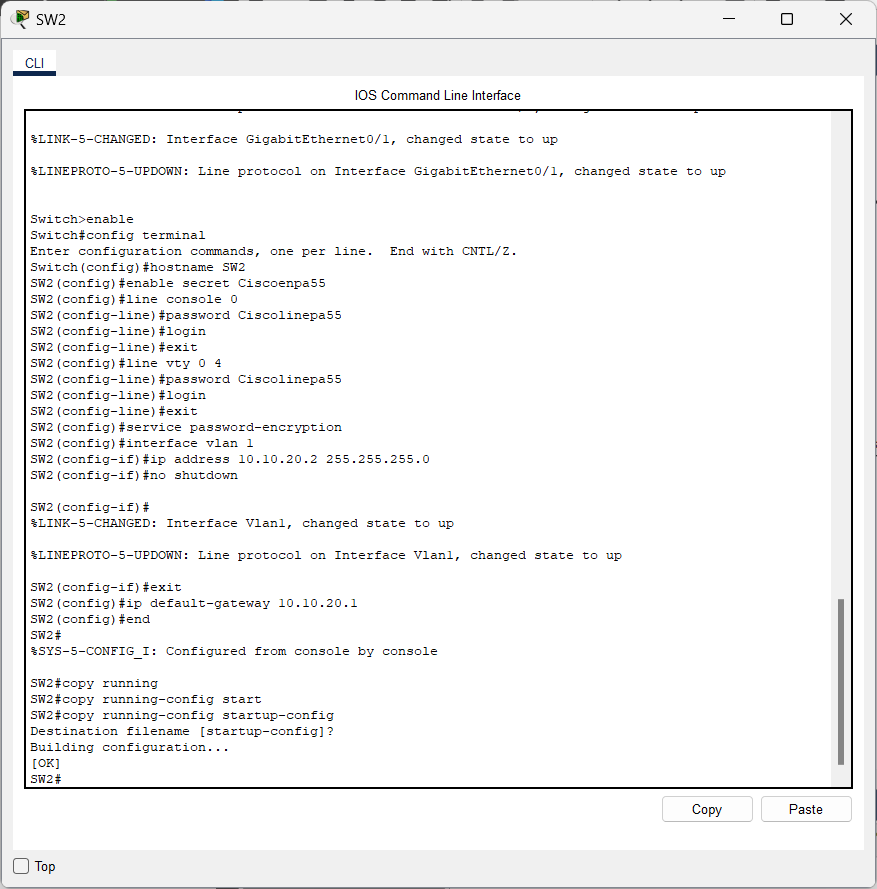


* 1. Save your configuration.

**Step 2: Configure switch SW1 and SW2.**

1. 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.
2. Configure an encrypted password using the value in step 1a above.
3. Configure all lines to accept connections using the password from step 1a above.
4. Configure the switches so that they can send data to hosts on remote networks. e. Save your configuration.



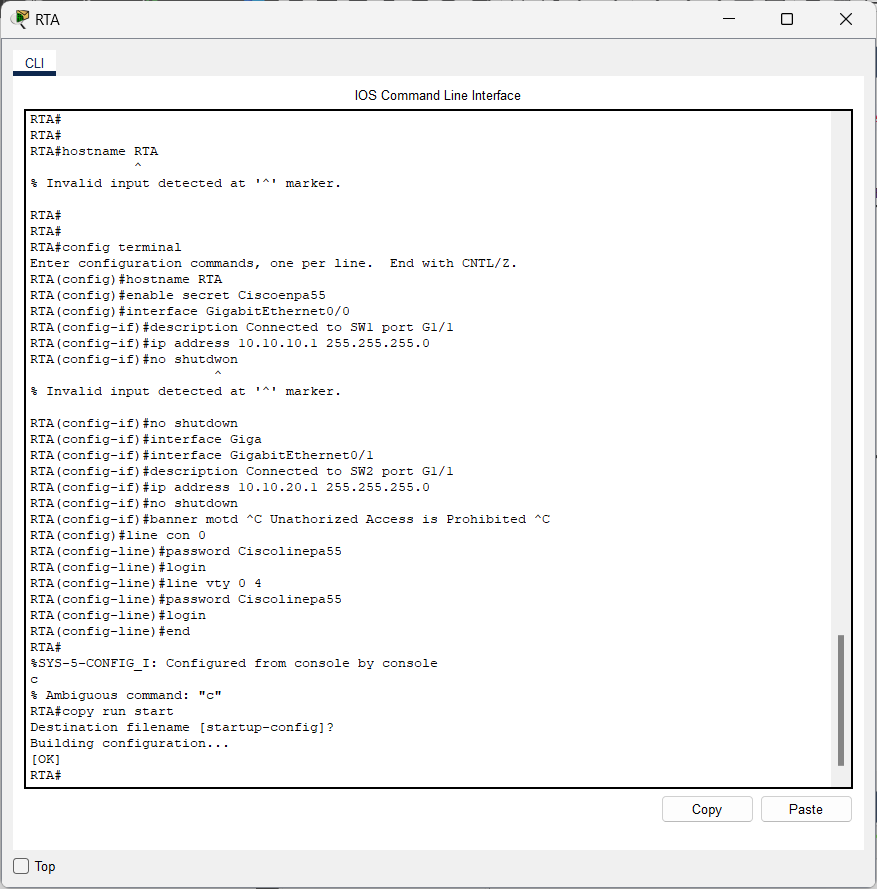


*Close configuration window*

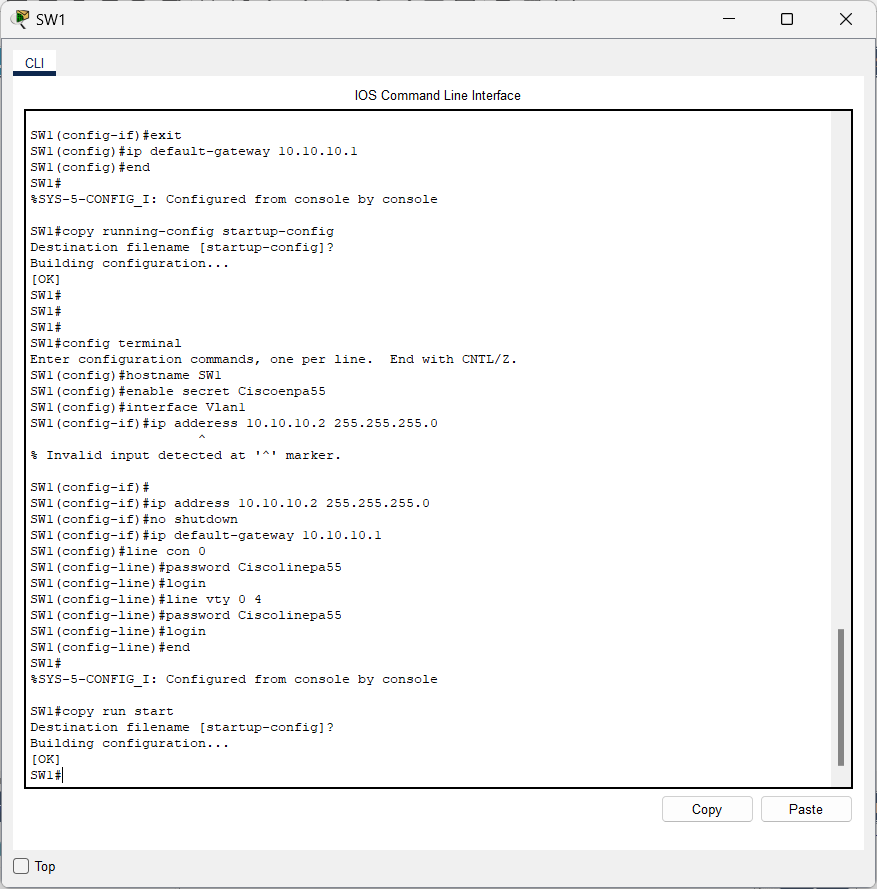
**Step 3: Configure the hosts.**

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

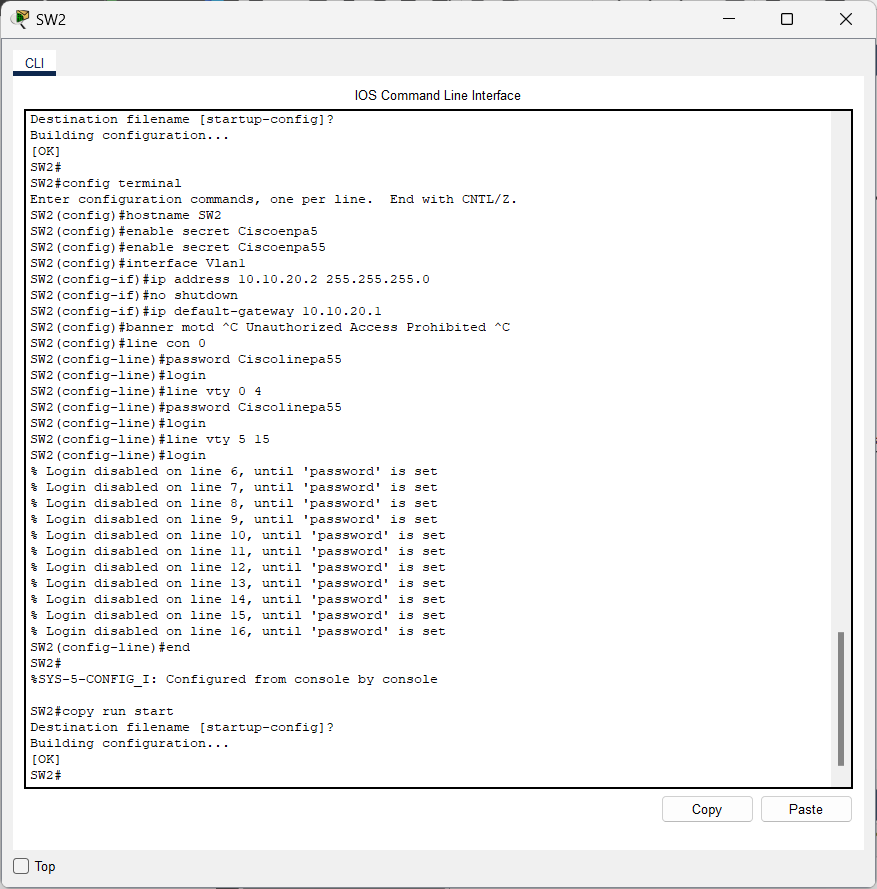
**Router**



**Switch-1**

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**Switch-2**

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