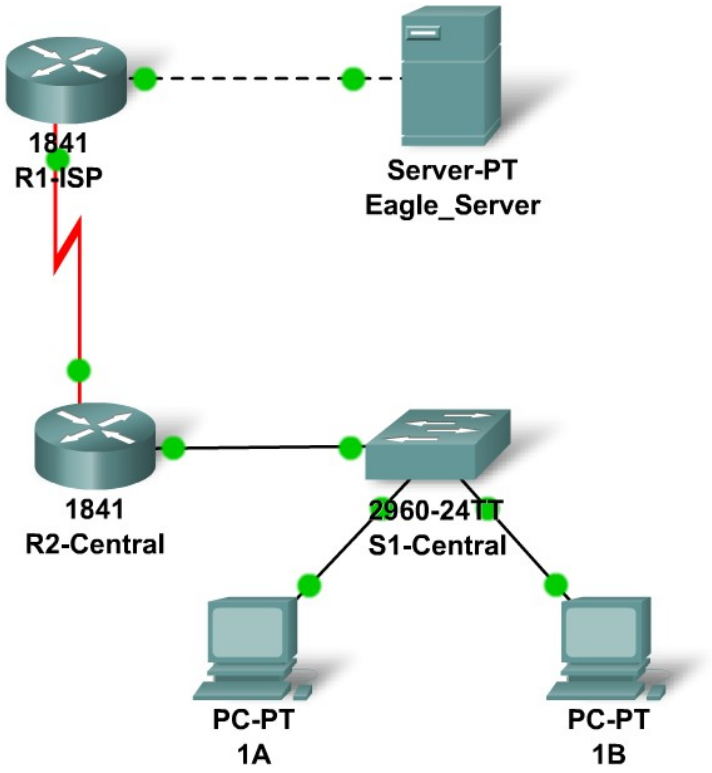
8.5.1: Skills Integration Challenge-Connecting Devices and Exploring the Physical View

Topology Diagram:



Addressing Table

Device	Interface	IP Address	Subnet Mask	Default Gateway
R1-ISP	Fa0/0	192.168.254.253	255.255.255.0	N/A
	S0/0/0	10.10.10.6	255.255.255.252	N/A
R2-Central	Fa0/0	172.16.255.254	255.255.0.0	10.10.10.6
	S0/0/0	10.10.10.5	255.255.255.252	10.10.10.6
S1-Central	VLAN 1	172.16.254.1	255.255.0.0	172.16.255.254
PC 1A	NIC	172.16.1.1	255.255.0.0	172.16.255.254
PC 1B	NIC	172.16.1.2	255.255.0.0	172.16.255.254
Eagle Server	NIC	192.168.254.254	255.255.255.0	192.168.254.253

Learning Objectives

- Connect the devices in the standard lab setup
  - Connect the devices
  - Verify connectivity
- View the standard lab setup in the Physical Workspace
  - Enter and view the Physical Workspace
  - View the standard lab setup at the various levels of the Physical Workspace

Introduction

When working in Packet Tracer, in a lab environment, or in a corporate setting it is important to know how to select the proper cable, and how to properly connect devices. This activity will examine device configurations in Packet Tracer, selecting the proper cable based on the configuration, and connecting the devices. This activity will also explore the physical view of the network in Packet Tracer.

Task 1: Connect the Devices in the Standard Lab Setup.

Step 1: Connect the devices.

Connect PC 1A to the first port on switch S1-Central and PC 1B to the second port on switch S1-Central using the proper cable.

Click on router R2-Central and examine the configuration using the **Config** tab. Connect the proper interface on the router to Interface FastEthernet0/24 on switch S1-Central using the proper cable.

Click on both routers and examine the configuration using the **Config** tab. Connect the routers together using the proper interfaces and the proper cable

Click on router R1-ISP and examine the configuration using the **Config** tab. Connect the proper interface on the router to the proper interface on Eagle Server using the proper cable.

Step 2: Verify connectivity.

From the **Command Prompt** on the **Desktop** of both PCs issue the command **ping 192.168.254.254**, the IP address of Eagle Server. If the pings fail, check your connections and troubleshoot until the pings succeeds. Check your configuration by clicking the **Check Results** button.

Task 2: View the Standard Lab Setup in the Physical Workspace.

Step 1: Enter and view the Physical Workspace.

Most of our work in Packet Tracer has been done in the Logical Workspace. In an internetwork, routers may be in different sites from across the street to across the globe. The serial link between the routers represents a dedicated leased line between two locations consisting of a DTE (Data Terminal Equipment), such as a router, connected to a DCE (Data Communication Equipment), such as a CSU/DSU or modem. The DCE connects to a service provider's local loop and the connections are repeated at the other end of the link. The Physical Workspace allows us to see these relationships more clearly.

Enter the Physical Workspace by clicking the tab in the upper left hand corner of the Workspace. It shows the connection between Central City and ISP City.

Step 2: View the standard lab setup at the various levels of the Physical Workspace.

Click on the Central City. You will see the city and the location of the Central Office building. Click on the Central Office building. You will see the floor plan of the building and the location of the Wiring Closet. Click on the Wiring Closet. You will see a physical representation of the equipment installed in the wiring closet and the cabling that connects the equipment. Examine this view of the topology.

Click on **Intercity** on the **Navigation** bar. Repeat the steps to view the equipment installed in ISP City.

