

### 3. Test and Send Messages

#### 3.1. Verify Connectivity

1. **Ping Test:**
  - Open **Command Prompt** on **PC1** (Desktop > Command Prompt).
  - If successful, repeat to ping other PCs on the same switch.
2. **Ping Between Switches:**
  - If switches are interconnected, test communication between PCs on different switches:
  - Ensure connectivity is successful. If not, check inter-switch connections and IP configurations.

#### 3.2. Send Messages Using Simulation Mode

1. **Switch to Simulation Mode:**
  - Click on the "**Simulation**" tab at the bottom-left of Packet Tracer.
2. **Add Simple PDU:**
  - Click on "**Add Simple PDU**" (packet icon) in the Simulation Mode toolbar.
3. **Select Source Device:**
  - Click on **PC1** (the source of the message).
4. **Select Destination Device:**
  - Click on **PC6** (the destination for the message).
5. **Configure the Message:**
  - A dialog will appear. Click "**OK**" to send the message.
6. **Observe Packet Flow:**
  - Click the "**Play**" (triangle icon) to start the simulation.
  - Watch the packet flow from **PC1** to **PC6** across the switches.

#### 3.3. Examine Packet Details

1. **View Packet Details:**
  - Click on the **packet** in the simulation window to view details about the packet's journey and processing.
2. **Check Received Message:**
  - On **PC6**, open **Command Prompt** to verify if the message has been received or not.

### Summary

- **Set Up Network:** Add and connect 10 PCs and 2 switches.
- **Configure IP Addresses:** Assign IP addresses to each PC.
- **Test Connectivity:** Use ping tests to verify network communication.
- **Send Messages:** Use Simulation Mode to send and observe messages between PCs.

By following these steps, you can successfully set up a network in Cisco Packet Tracer, connect devices, and simulate sending messages between PCs.

# 1. Set Up the Network

## 1.1. Add Devices

1. **Launch Cisco Packet Tracer:**
  - Open Cisco Packet Tracer on your computer.
2. **Add PCs:**
  - Drag and drop 10 **PC** devices onto the workspace.
3. **Add Switches:**
  - Drag and drop 2 **Switch** devices (e.g., **2960**) onto the workspace.

## 1.2. Connect Devices

1. **Connect PCs to Switches:**
  - Click on the **"Connections"** tool (lightning bolt icon).
  - Select **Copper Straight-Through** cable.
  - Click on a **PC** and select the **FastEthernet0** port.
  - Click on a **Switch** and select an available **FastEthernet** port (e.g., **Fa0/1**).
  - Repeat for the remaining PCs and switches.
2. **Interconnect Switches (Optional for Larger Networks):**
  - If you want Switch 1 and Switch 2 to communicate directly:
    - Click on **Copper Straight-Through** cable.
    - Click on **Switch 1** and select an available **FastEthernet** port (e.g., **Fa0/24**).
    - Click on **Switch 2** and select an available **FastEthernet** port (e.g., **Fa0/24**).

# 2. Configure IP Addresses

## 2.1. Configure IP Addresses on PCs

1. **Open PC Configuration:**
  - Click on **PC1** and go to the **"Desktop"** tab.
  - Open **"IP Configuration"**.
2. **Assign IP Address:**
  - Set the IP address, subnet mask, and default gateway. For example:
    - **PC1:**
      - IP Address: 192.168.1.2
      - Subnet Mask: 255.255.255.0
    - **PC2 to PC5:**
      - Assign IP addresses in the same subnet (e.g., 192.168.1.3 to 192.168.1.5).
3. **Repeat for PCs on Switch 2:**
  - **PC6:**
    - IP Address: 192.168.2.2
    - Subnet Mask: 255.255.255.0
  - **PC7 to PC10:**
    - Assign IP addresses in the same subnet (e.g., 192.168.2.3 to 192.168.2.5).

