

Experiment 3. Configuration of basic switch setup using Huawei/Cisco network switch using cisco packet tracer.

Step 1: Setting Up the Network Topology

1. **Add devices:**
 - Drag and drop a Cisco switch (e.g., 2960) onto the workspace.
 - Drag and drop two or more PCs onto the workspace.
2. **Connect devices:**
 - Use the **Connections** option to select the **Copper Straight-Through** cable.
 - **Connect each PC to the switch using the FastEthernet ports (e.g., PC0 to FastEthernet0/1, PC1 to FastEthernet0/2).**

Step 2: Configuring the Switch

1. **Open the CLI (Command-Line Interface) of the switch:**
 - Click on the switch and go to the **CLI** tab.

```
switch>enable
switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)#hostname s1
s1(config)#interface vlan 1
s1(config-if)#ip address 192.168.1.1 255.255.255.0
s1(config-if)#no shutdown
s1(config-if)#
s1(config-if)#exit
s1(config)#exit
s1#
%SYS-5-CONFIG_I: Configured from console by console

s1#write memory
Building configuration...
[OK]
s1#
```

2. Step
p 3:

Configuring PCs

3. **Assign IP addresses to PCs:**
 - Click on each PC and go to the **Desktop** tab.
 - Open the **IP Configuration** and assign an IP address within the same subnet as the switch's VLAN 1 interface. For example:
 1. **PC0: IP Address: 192.168.1.2, Subnet Mask: 255.255.255.0**
 2. **PC1: IP Address: 192.168.1.3, Subnet Mask: 255.255.255.0**

Physical **Config** Desktop Programming Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Bluetooth

FastEthernet0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0001.6437.C91A

IP Configuration

☐ DHCP

☒ Static

IPv4 Address 192.168.1.2

Subnet Mask 255.255.255.0

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

Link Local Address FE80::201:64FF:FE37:C91A

pc1

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Bluetooth

FastEthernet0

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 000D.BDCE.C9A4

IP Configuration

☐ DHCP

☒ Static

IPv4 Address 192.168.1.3

Subnet Mask 255.255.255.0

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

Link Local Address FE80::20D:BDFF:FECE:C9A4

pc0

Step 4: Testing Connectivity

1. Ping between PCs:

- Open the Command Prompt on one of the PCs (e.g., PC0).
- Use the **ping** command to check connectivity to the other PC (e.g., ping 192.168.1.3).

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.3

Pinging 192.168.1.3 with 32 bytes of data:

Reply from 192.168.1.3: bytes=32 time<1ms TTL=128
Reply from 192.168.1.3: bytes=32 time=1ms TTL=128
Reply from 192.168.1.3: bytes=32 time<1ms TTL=128
Reply from 192.168.1.3: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>|
```