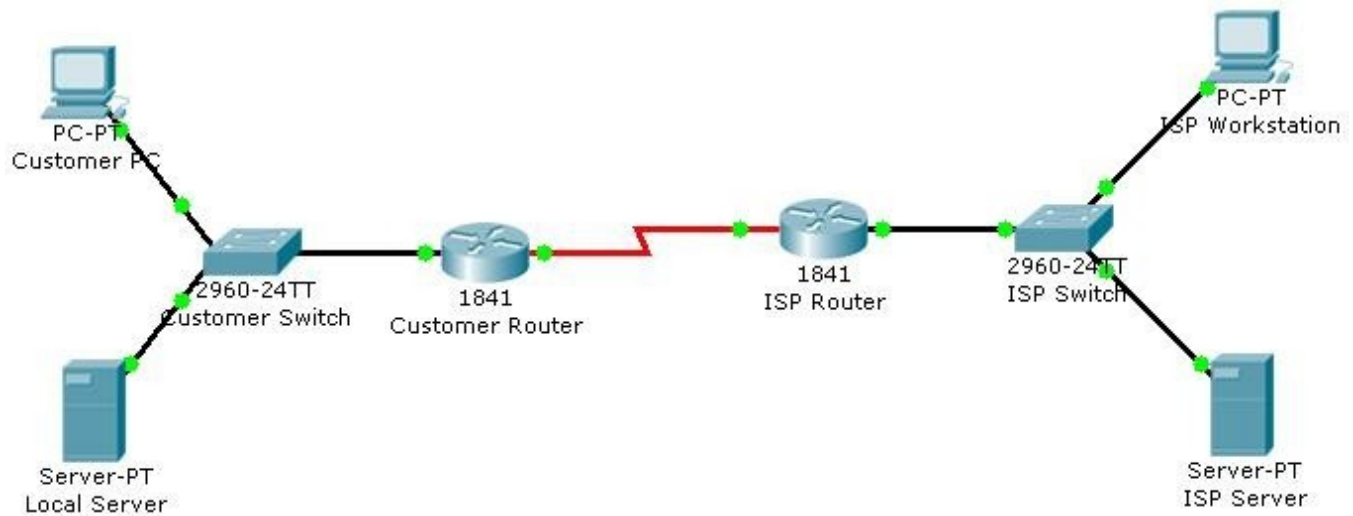# Experiment-6

## Aim:-      Performing an Initial Switch Configuration

**Topology Diagram**



## Objectives

- Perform an initial configuration of a Cisco Catalyst 2960 switch.

## Background / Preparation

In this activity, you will configure these settings on the customer Cisco Catalyst 2960 switch:

- Host name
- Console password
- vty password
- Privileged EXEC mode password
- Privileged EXEC mode secret
- IP address on VLAN1 interface
- Default gateway

**Step 1: Configure the switch host name.**

a. From the Customer PC, use a console cable and terminal emulation software to connect to the console of the customer Cisco Catalyst 2960 switch.

b. Set the host name on the switch to **CustomerSwitch** using these commands.

Switch>**enable**
Switch#**configure terminal**

Switch(config)#**hostname  CustomerSwitch**

## Step 2: Configure the privileged mode password and secret.

a.  From global configuration mode, configure the password as **cisco**.

CustomerSwitch(config)#**enable  password  cisco**

b.  From global configuration mode, configure the secret as **cisco123**.

CustomerSwitch(config)#**enable  secret  cisco123**

## Step 3: Configure the console password.

a.  From global configuration mode, switch to configuration mode to configure the console line.

CustomerSwitch(config)#**line console 0**

b.  From line configuration mode, set the password to **cisco** and require the password to be entered at login.

CustomerSwitch(config-line)#**password cisco**
CustomerSwitch(config-line)#**login**
CustomerSwitch(config-line)#**exit**

## Step 4: Configure the vty password.

a.  From global configuration mode, switch to the configuration mode for the vty lines 0 through 15.

CustomerSwitch(config)#**line vty 0 15**

b.  From line configuration mode, set the password to **cisco** and require the password to be entered at login.

CustomerSwitch(config-line)#**password cisco**
CustomerSwitch(config-line)#**login**
CustomerSwitch(config-line)#**exit**

## Step 5: Configure an IP address on interface VLAN1.

From global configuration mode, switch to interface configuration mode for VLAN1, and assign the IP address 192.168.1.5 with the subnet mask of 255.255.255.0.

CustomerSwitch(config)#**interface vlan 1**
CustomerSwitch(config-if)#**ip address 192.168.1.5 255.255.255.0**
CustomerSwitch(config-if)#**no  shutdown**
CustomerSwitch(config-if)#**exit**

## Step 6: Configure the default gateway.

a.  From global configuration mode, assign the default gateway to 192.168.1.1.

CustomerSwitch(config)#**ip  default-gateway  192.168.1.1**

b. Click the **Check Results** button at the bottom of this instruction window to check your work.

## Step 7: Verify the configuration.

The Customer Switch should now be able to ping the ISP Server at 209.165.201.10. The first one or two pings may fail while ARP converges.

> CustomerSwitch(config)#**end**
> CustomerSwitch#**ping 209.165.201.10**
>
> Type escape sequence to abort.
> Sending 5, 100-byte ICMP Echos to 209.165.201.10, timeout is 2 seconds:
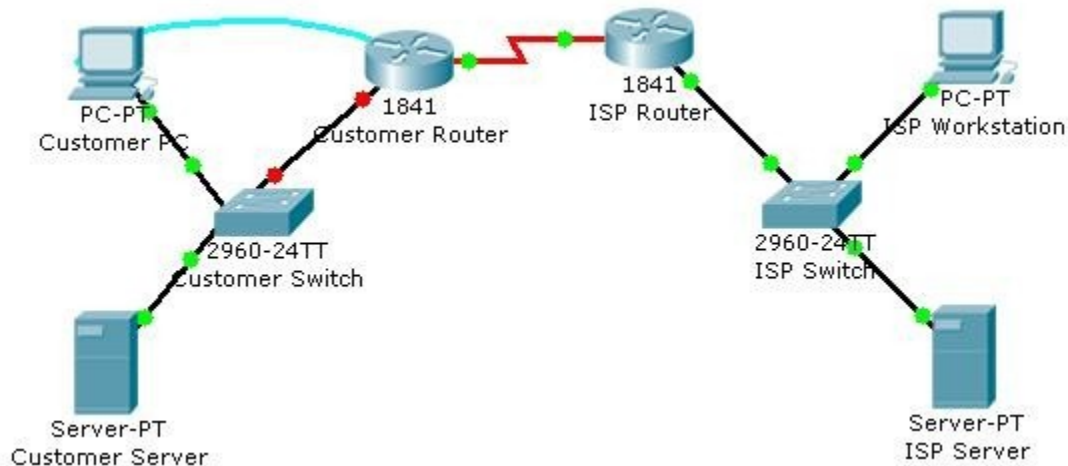> ..!!!
> Success rate is 60 percent (3/5), round-trip min/avg/max = 181/189/197 ms
>
> CustomerSwitch#

# Experiment-7

## Aim:-         Performing an Initial Router Configuration

### Topology Diagram



## Objectives

- Configure the router host name.
- Configure passwords.
- Configure banner messages.
- Verify the router configuration.

## Background / Preparation

In this activity, you will use the Cisco IOS CLI to apply an initial configuration to a router, including host name, passwords, a message-of-the-day (MOTD) banner, and other basic settings.

**Note:** Some of the steps are not graded by Packet Tracer.

### Step 1: Configure the router host name.

a. On Customer PC, use the terminal emulation software to connect to the console of the customer Cisco 1841 ISR.

Set the host name on the router to **CustomerRouter** by using these commands.

```
Router>enable
Router#configure terminal
Router(config)#hostname  CustomerRouter
```

### Step 2: Configure the privileged mode and secret passwords.

a. In global configuration mode, set the password to **cisco**.

CustomerRouter(config)#**enable password cisco**

Set an encrypted privileged password to **cisco123** using the **secret** command.

CustomerRouter(config)#**enable secret cisco123**

## Step 3: Configure the console password.

a. In global configuration mode, switch to line configuration mode to specify the console line.

CustomerRouter(config)#**line console 0**

Set the password to **cisco123**, require that the password be entered at login, and then exit line configuration mode.

CustomerRouter(config-line)#**password cisco123**
CustomerRouter(config-line)#**login**
CustomerRouter(config-line)#**exit**
CustomerRouter(config)#

## Step 4: Configure the vty password to allow Telnet access to the router.

a. In global configuration mode, switch to line configuration mode to specify the vty lines.

CustomerRouter(config)#**line vty 0 4**

Set the password to **cisco123**, require that the password be entered at login, exit line configuration mode, and then **exit** the configuration session.

CustomerRouter(config-line)#**password cisco123**
CustomerRouter(config-line)#**login**
CustomerRouter(config-line)#**exit**
CustomerRouter(config)#

## Step 5: Configure password encryption, a MOTD banner, and turn off domain server lookup.

a. Currently, the line passwords and the enable password are shown in clear text when you show the running configuration. Verify this now by entering the **show running-config** command.

To avoid the security risk of someone looking over your shoulder and reading the passwords, encrypt all clear text passwords.

CustomerRouter(config)#**service password-encryption**

Use the **show running-config** command again to verify that the passwords are encrypted.

To provide a warning when someone attempts to log in to the router, configure a MOTD banner.

CustomerRouter(config)#**banner motd $Authorized Access Only!$**

Test the banner and passwords. Log out of the router by typing the **exit** command twice. The banner displays before the prompt for a password. Enter the password to log back into the router.

You may have noticed that when you enter a command incorrectly at the user or privileged EXEC prompt, the router pauses while trying to locate an IP address for the mistyped word you entered. For example, this output shows what happens when the **enable** command is mistyped.

> CustomerRouter>**emable**
> Translating "emable"...domain server (255.255.255.255)

> To prevent this from happening, use the following command to stop all DNS lookups from the router CLI.

> CustomerRouter(config)#**no ip domain-lookup**

Save the running configuration to the startup configuration.

> CustomerRouter(config)#**end**
> CustomerRouter#**copy run start**

## Step 6: Verify the configuration.

   a. Log out of your terminal session with the Cisco 1841 customer router.

   b. Log in to the Cisco 1841 Customer Router. Enter the console password when prompted.

   c. Navigate to privileged EXEC mode. Enter the privileged EXEC password when prompted.

   d. Click the **Check Results** button at the bottom of this instruction window to check your work.