INTRODUCTION TO COMPUTER NETWORK

Course ID: 502046

Tutorial 3
Configure End Devices

Objectives

- Configure various end devices in Packet Tracer.

Background / Scenario

In this activity, you will construct a simple Packet Tracer network and complete basic configuration of end devices.

Instructions

Part 1: Build the Topology.

Step 1: Create the devices.

Deploy a 2960 switch, two PCs and a server.

If help is required, please refer to previous activities.

Step 2: Connect the devices.

a. Connect FastEthernet0 on PC0 to FastEthernet0/1 on Switch0 with a Copper Straight-Through cable.

b. Connect FastEthernet0 on PC1 to FastEthernet0/2 on Switch0 with a Copper Straight-Through cable.

c. Connect FastEthernet0 on Server0 to GigabitEthernet0/1 on Switch0 with a Copper Straight-Through cable.

Part 2: Configure Static IP addresses.

Step 1: Configure IP address for Server0.

a. Click **Server0**.

b. Click the **Desktop** tab.

c. Click the **IP Configuration** icon.

d. Verify the bullet **Static** is selected.

e. Enter **192.168.1.1** in the IP Address field.

f. Enter **255.255.255.0** in the **Subnet Mask** field as needed.

g. Close the IP Configuration when done.

Step 2: Configure IP address for the PCs.

a. Click **PC0**.

b. Click the **Desktop** tab.

c. Click the **IP Configuration** icon.

d. Verify the bullet **Static** is selected.

e. Enter **192.168.1.2** in the IP Address field.

f. Enter **255.255.255.0** in the **Subnet Mask** field as needed.

g. Close the IP Configuration when done for PC0.

h. Repeat the same procedure for PC1. Use **192.168.1.3** as the IP address for PC1.

Part 3: Verify Connectivity.

Step 1: Verify connectivity via the Command Prompt.

a. Verify that all the link lights are green.

b. Click **PC0**.

c. Click the **Desktop** tab.

d. Click **Command Prompt** to open the PC command line interface.

e. At the prompt, enter **ping 192.168.1.1**.

```
C:\> ping 192.168.1.1
```

If you have done everything correctly, you should see the following output. Your output could vary, but the reply statements should be there. If the replies are not there, try redoing the device configuration to this point.

```
Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time<1ms TTL=128
Reply from 192.168.1.1: bytes=32 time<1ms TTL=128
Reply from 192.168.1.1: bytes=32 time<1ms TTL=128
Reply from 192.168.1.1: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.1.1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

f. You can also ping **PC1**. Navigate to the Command Prompt for PC1 and enter the command **ping 192.168.1.3** at the prompt. The ping should be successful.

g. Close the command prompt when finished.

Step 2: Verify connectivity via the web browser.

a. Click **PC1**.

b. Click the **Desktop** tab.

c. Click the **Web Browser** to open the web browser application.

d. Enter **192.168.1.1** in the URL field and click **Go**. The Cisco Packet Tracer webpage should open.

e. Close the web browser when finished.

f. You can also use the web browser application on **PC0** to display the Cisco Packet Tracer webpage. Navigate to PC0. From the **Desktop** tab, open **Web Browser** and enter **192.168.1.1** in the URL field.

Part 4: Basic Switch Configuration

You will perform some basic configuration on a switch using the Config and CLI tabs in Packet Tracer.

Step 1: The Config tab

a. Click **Switch0**.

b. Click the **Config** tab.

Note: The **Config** tab is not always available on physical networking equipment. Some simple devices only have config tabs. The config tab can be useful for basic learning of commands, especially for beginners.

The **Config** tab shows a list of components that can be configured on this device. We are not going to cover what these components are, as that is learned in a networking course, but we will show how to navigate and use the interface.

c. The **Global Settings** allows a user to change the name of a device that displays in the workspace. It also allows for changing the internal name shown at the command line prompt as well as buttons for saving, loading, exporting, and erasing configuration files.

Double-click in the **Hostname** dialog box to highlight the word Switch. Enter **Central** to replace Switch as the hostname. Packet Tracer will display the IOS commands necessary to accomplish the name change in the **Equivalent IOS Commands** box. The commands displayed should be as follows:

```
Switch> enable
Switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)# hostname Central
Central(config)#
```

These would be the commands used from the command line interface or CLI to change the hostname. If you did not know how to do this from the CLI, the **Config** tab would show the necessary commands.

d. Click the **FastEthernet0/1** under the Interface heading to configure the FastEthernet0/1 interface.

In the **Equivalent IOS Commands**, the command **interface FastEthernet0/1** is displayed in the Equivalent IOS Commands box.

Step 2: The CLI tab

a. Select the **CLI** tab to switch to the CLI interface. Notice that the same commands that were in the **Equivalent IOS Commands** box are listed in the CLI window.

b. At the prompt, enter **shutdown**.

```
Central(config-if)# shutdown
Central(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to
administratively down
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1,
changed state to down
Central(config-if)#
```

This command just shuts down the interface down from the command line.

c. Navigate to the Workspace. Notice that the link lights for the connection between PC0 and Switch0 are red. Because the interface on the switch was shut down, the connection is no longer active and shows red.

d. Save and close the activity, then exit Packet Tracer if desired.