

INTRODUCTION TO COMPUTER NETWORK

Course ID: 502046

Tutorial 4

Create a Simple Network

Topology



Addressing Table

Device	Interface	IP Address	Subnet Mask	Default Gateway
PC	Ethernet0	DHCP		192.168.0.1
Wireless Router	LAN	192.168.0.1	255.255.255.0	N/A
	Internet	DHCP		
cisco.com Server	Ethernet0	209.165.200.225	255.255.255.224	N/A
Laptop	Wireless0	DHCP		192.168.0.1

Objectives

In this activity, you will build a simple network in Packet Tracer.

Part 1: Build a Simple Network

Part 2: Configure the End Devices and Verify Connectivity

Instructions

Part 1: Build a Simple Network

In this part, you will build a simple network by deploying and connecting the network devices.

Step 1: Add network devices to the workspace.

In this step, you will add a PC, laptop, and a cable modem to the Logical Workspace.

Using the device selection box, add the devices to the workspace, add the following devices to the workspace. The category and sub-category associated with the device are listed below:

- **PC:** End Devices > End Devices > PC
- **Laptop:** End Devices > End Devices > Laptop
- **Cable Modem:** Network Devices > WAN Emulation > Cable Modem

Step 2: Change display names of the network devices.

- a. To change the display names of the network devices, click the device icon on the Logical workspace.
- b. Click the **Config** tab in the device configuration window.
- c. Enter the new name of the newly added device into the **Display Name** field according to the Addressing Table.

Step 3: Add the physical cabling between devices on the workspace

Using the device selection box, add the physical cabling between devices on the workspace.

- a. The PC will need a copper straight-through cable to connect to the wireless router. Select the copper straight-through cable in the device selection box and attach it to the **FastEthernet0** interface of the PC and the **GigabitEthernet 1** interface of the wireless router.
- b. The wireless router will need a copper cross-over cable to connect to the cable modem. Select the copper cross-over cable in the device-selection box and attach it to the Internet interface of the wireless router and the **Port 1** interface of the cable modem.
- c. The cable modem will need a Coaxial cable to connect to the Internet cloud. Select the Coaxial cable in the device-selection box and attach it to the **Port 0** interface of the cable modem and the **Coaxial 7** interface of the Internet cloud.

Part 2: Configure the End Devices and Verify Connectivity

Step 1: Configure the PC.

You will configure the PC for the wired network in this step.

- a. Click the **PC**. In the **Desktop** tab, navigate to **IP Configuration** to verify that DHCP is enabled and the PC has received an IP address. Close the IP Configuration window when done.
- b. In the **Desktop** tab, click **Command Prompt**.
- c. Verify that the PC has received an IPv4 address by issuing the **ipconfig /all** command from the prompt. The PC should receive an IPv4 address in the 192.168.0.x range.
- d. Test connectivity to the cisco.pka server from the PC. From the command prompt, issue the command **ping cisco.pka**. It may take a few seconds for the ping to return. Four replies should be received.

Step 2: Configure the Laptop.

In this step, you will configure the laptop to access the wireless network.

- a. Click **Laptop**, and select the **Physical** tab.
- b. In the **Physical** tab, you will need to remove the Ethernet copper module and replace it with the Wireless WPC300N module.
 - 1) Power off **Laptop** by clicking the power button on the side of the laptop.
 - 2) Remove the currently installed Ethernet copper module by clicking on the module on the side of the laptop and dragging it to the **MODULES** pane on the left of the laptop window.
 - 3) Install the Wireless WPC300N module by clicking it in the **MODULES** pane and dragging it to the empty module port on the side of the laptop.
 - 4) Power on the **Laptop** by clicking the Laptop power button again.
- c. With the wireless module installed, connect the laptop to the wireless network. Click the **Desktop** tab and select the **PC Wireless**.
- d. Select the **Connect** tab. The wireless network **HomeNetwork** should be visible in the list of wireless networks. Select the **HomeNetwork**. Click **Connect**.
- e. Close the **PC Wireless**. Select **Web Browser** in the Desktop tab.
- f. In the Web Browser, navigate to **cisco.pka**.