

Packet Tracer - Connect Wireless Computers to a Wireless Router

Objectives

- Configure basic wireless settings on a computer.
- Configure basic security on a wireless router.
- Verify full connectivity.

Introduction

In this activity, you will configure wireless computers to connect to a network via a wireless router. You will configure basic security on a wireless router by changing the SSID and password, and adding WPA2 encryption.

Step 1: Connect to the wireless router.

- From **WirelessPC1**, access **PC Wireless** under the **Desktop** tab.
- Click the **Connect** tab. When the **Default** network becomes available, click **Connect** to connect to the **Default** network. Close the **PC Wireless** screen.
- While still at the desktop of the PC, verify the connectivity settings. Open a **Command Prompt** and type the **ipconfig** command.

```
PC> ipconfig
```

```
Wireless0 Connection:(default port)
```

```
Link-local IPv6 Address.....: ::  
IP Address.....: 192.168.1.100  
Subnet Mask.....: 255.255.255.0  
Default Gateway.....: 192.168.1.1
```

Note: The IP address could be different because it was dynamically acquired.

- Close the command prompt.

Step 2: Access the wireless router through the web browser.

- On **WirelessPC1**, click the **Web Browser**. Enter the URL **192.168.1.1**, the default gateway of the PC.
- You will be prompted for a username and password. The default username and password are both **admin**. After you have entered the login information, you should be viewing the web page of the wireless router, **WRS1**.

Step 3: Configure basic wireless settings.

- To start securing the wireless network, access the **Wireless** page and change the default **Network Name (SSID)** from **Default** to **WRS1**.
- Scroll down the page and then click **Save Settings**. When the settings are accepted by the wireless router, a **Request Timeout** message will appear in the web browser window.
- Connect **WirelessPC1** to the new **WRS1** wireless network.

Step 4: Enable wireless security.

- Reconnect to the wireless router setup page and log in.

- b. Navigate to the **Wireless** page and select the **Wireless Security** tab.
- c. Select **WPA2 Personal** as the Security Mode.
- d. Enter **ITEpassword** as the passphrase.
- e. Scroll to the bottom of the window and click **Save Settings**.

Why have you become disconnected from the network again?

Step 5: Configure WirelessPC1 to use WPA2 authentication.

- a. Return to the **Desktop** and click **PC Wireless**.
- b. Click the **Connect** tab.
- c. From the list of available wireless networks, select **WRS1** and click **Connect**.
- d. Enter **ITEpassword** in the **Pre-shared Key** field. Click **Connect** to continue.
- e. Click the **Link Information** tab to verify connectivity to the access point.

Your completion percentage should be 60%. If not, click **Check Results** to see which required components are not yet completed.

Step 6: Configure web access password.

- a. Reconnect to the wireless router setup page and log in.
- b. Navigate to the **Administration** tab. Change the default router password to **cisco** to secure access to **WRS1**. Note that **HTTP Web Utility Access** is already selected by default. Click **Save Settings**.
- c. When prompted, enter the username of **admin** and use **cisco** as the password to reconnect to the wireless router. When the message **Settings are successful** displays, click **Continue**.

Step 7: Change the wireless channel in use.

Many access points can automatically select a channel based on adjacent channel use. Some products continuously monitor the radio space to adjust the channel settings dynamically in response to environmental changes. In this step, you will configure the access point to work on channel 6 using the 20MHz radio band.

- a. On the **Wireless** tab, navigate to the **Basic Wireless Setting**.
- b. Because the clients are 802.11b/g only, the **Radio Band** is configured to use **Standard-20MHz Channel**.
- c. Change the Standard Channel to **6 – 2.437GHz**.
- d. Save your settings.
- e. **WirelessPC1** should now be associated to **WRS1**. Reconnect to **WRS1** if necessary.

Step 8: Connect WirelessPC2 to the network.

In this step, you will configure WirelessPC2 to use WPA2-Personal authentication.

- a. Click **WirelessPC2** and connect to the **WRS1** wireless network.
- b. Click the **Link Information** tab to verify connectivity to the access point.

Your completion percentage should be 100%. If not, click **Check Results** to see which required components are not yet completed.