# Tutorial 7
# Configure DHCP on a Wireless Router

## Topology


## Objectives

- Connect 3 PCs to a wireless router
- Change the DHCP setting to a specific network range
- Configure the clients to obtain their address via DHCP

## Background / Scenario

A home user wants to use a wireless router to connect 3 PCs. All 3 PCs should obtain their address automatically from the wireless router.

## Instructions

### Part 1: Set up the network topology

Step 1: Add three generic PCs.

Step 2: Connect each PC to an Ethernet port to the wireless router using straight-through cables.

### Part 2: Observe the default DHCP settings

Step 1: After the amber lights have turned green, click **PC0**. Click the **Desktop** tab. Select **IP Configuration**. Select **DHCP** to receive an IP address from **DHCP Enabled Router**.

**Step 2: Question:**

Record the IP address of the default gateway:

Step 3: Close the **IP Configuration** window.

Step 4: Open a Web Browser.

Step 5: Enter the IP address of the default gateway recorded earlier into the URL field. When prompted, enter the username **admin** and password **admin**.

Step 6: Scroll through the Basic Setup page to view default settings, including the default IP address of the wireless router.

Step 7: Notice that DHCP is enabled, the starting address of the DHCP range and the range of addresses available to clients.

## Part 3: Change the default IP address of the wireless router.

Step 1: Within the Router IP Settings section, change the IP address to: **192.168.5.1**.

Step 2: Scroll to the bottom of the page and click **Save Settings**.

Step 3: If it is done correctly, the web page will display an error message. Close the web browser.

Step 4: Click **IP Configuration** to renew the assigned IP address. Click **Static**. Click **DHCP** to receive new IP address information from the wireless router.

Step 5: Open the web browser, enter the IP address **192.168.5.1** in the URL field. When prompted, enter the username **admin** and password **admin**.

## Part 4: Change the default DHCP range of addresses.

Step 1: Notice the DHCP Server Start IP Address is updated to the same network as the Router IP.

Step 2: Change the Starting IP Address from 192.168.5.100 to **192.168.5.126**.

Step 3: Change the Maximum Number of Users to **75**.

Step 4: Scroll to the bottom of the page and click **Save Settings**. Close the web browser.

Step 5: Click **IP Configuration** to renew the assigned IP address. Click **Static**. Click **DHCP** to receive new IP address information from the wireless router.

Step 6: Select **Command Prompt**. Enter **ipconfig**.

### Step 7: Question:

Record the IP address for PC0:

## Part 5: Enable DHCP on the other PCs.

Step 1: Click **PC1**.

Step 2: Select **Desktop** tab.

Step 3: Select IP Configuration.

Step 4: Click **DHCP**.

### Step 5: Question:

Record the IP address for PC1:

Step 6: Close the configuration window.

Step 7: Enable DHCP on **PC2** following the steps for PC1.

## Part 6: Verify connectivity

Step 1: Click **PC2** and select the **Desktop** tab.

Step 2: Select Command Prompt.

Step 3: Enter **ipconfig** at the prompt to view the IP configuration.

Step 4: At the prompt, enter **ping 192.168.5.1** to ping the wireless router.

Step 5: Enter **ping 192.168.5.126** to ping PC0 at the prompt.

Step 6: At the prompt, enter **ping 192.168.5.127** to ping PC1.

Step 7: The pings to all devices should be successful.

## Answer Key

### Part 1: Set up the network topology

### Part 2: Observe the default DHCP settings

Record the IP address of the default gateway:

**192.168.0.1**

### Part 3: Change the default IP address of the wireless router.

### Part 4: Change the default DHCP range of addresses.

Record the IP address for PC0:

**192.168.5.126**

### Part 5: Enable DHCP on the other PCs.

Record the IP address for PC1:

**192.168.5.127**

### Part 6: Verify connectivity