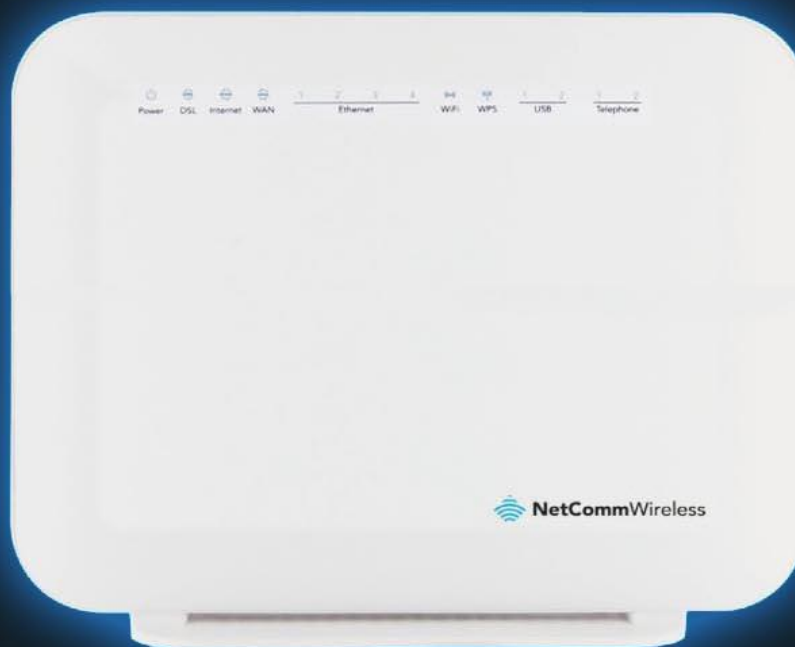




# Wireless Security Guide

(for Windows XP, Windows Vista, Windows 7,8, Mac OSx)

## Modem Router - **NF4V**



**NetCommWireless**

**NF4V**

# Wireless Setup Guide

The following steps will take you through the process of setting up and connecting to your wireless network. You can also use these steps to troubleshoot wireless connection issues.

## Step 1: Checking Computer Network Settings:

You will need to set the network connection on your computer to obtain an IP address automatically. Please follow the instructions appropriate for your operating system below:



Below are the instructions for setting Windows XP to obtain an IP address automatically for your ethernet connection:

1. Click on the **Start Menu**, and go to **“Control Panel”**.
2. Click on **“Network Connections”**.  
(If you only see **"Network and Internet Connections"**, open that first, and then click on **"Network Connections"**.)
3. Right click on **“Local Area Connection”** and select **“Properties”**.
4. Double-click on **“Internet Protocol”**.
5. Select **"Obtain an IP address automatically"**, and **"Obtain DNS server address automatically"**.
6. Click **“OK”**, and then click **“OK”** (or **“Close”**).



Below are the instructions for setting Windows Vista to obtain an IP address automatically for your ethernet connection:

1. Click on the **Start Menu**, and go to **“Control Panel”**.
2. Click on **“Network and Sharing Centre”**.  
(If you only see **"Network and Internet"**, open that first, and then click on **"Network and Sharing Centre"**.)
3. Click on **“Manage network connections”** (*on the lefthandside of the window*).
4. Right click on **“Local Area Connection”** and select **“Properties”**.
5. Double-click on **“Internet Protocol Version 4 (TCP/IPv4)”**.
6. Select **"Obtain an IP address automatically"**, and **"Obtain DNS server address automatically"**.
7. Click **“OK”**, and then click **“OK”** again.



Below are the instructions for setting Windows 7 to obtain an IP address automatically for your ethernet connection:

1. Click on the **Start Menu**, and go to **“Control Panel”**.
2. Click on **“Network and Sharing Centre”**.  
(If you only see **"Network and Internet"**, open that first, and then click on **"Network and Sharing Centre"**.)
3. Click on **“Change adapter settings”** (*on the lefthandside of the window*).
4. Right click on **“Local Area Connection”** and select **“Properties”**.
5. Double-click on **“Internet Protocol Version 4 (TCP/IPv4)”**.
6. Select **"Obtain an IP address automatically"**, and **"Obtain DNS server address automatically"**.
7. Click **“OK”**, and then click **“OK”** again.



Below are the instructions for setting Windows 8 to obtain an IP address automatically for your ethernet connection:

1. In Windows 8 Desktop view, move your cursor to the lower right; select **Settings**, and then **Control Panel**.
2. Double-click **Network and Sharing Center**.
3. From the list of tasks on the left, click **Change adapter settings**
4. For a wired network connection, right-click **Local Area Connection**, and select **Properties**.
5. From the **Networking** tab, make sure **Internet Protocol Version 4 (TCP/IPv4)** is checked, and then click **Properties**.
6. Select "**Obtain an IP address automatically**", and "**Obtain DNS server address automatically**".
7. Click "**OK**", and then click "**OK**" again.



Below are the instructions for setting Mac OS X to obtain an IP address automatically for your ethernet connection:

1. Click on the Apple Menu, and go to "**System Preferences**".
2. Click on "**Network**".
3. Click on "**Ethernet**" or "**Built-in Ethernet**".
4. Click on the "**Configure**" drop-down box, and select "**Using DHCP**" then click "**Apply**".

## Step 2: Configuring your wireless settings:

Please ensure that your modem/router is connected to your computer using an ethernet cable before continuing.

---

### Troubleshooting Tip

After logging into your router, verify the following settings to troubleshoot issues with your wireless connection:

- Wireless MAC filtering is **disabled**.
  - Your SSID is **not** hidden.
  - Confirm your wireless security settings (Make sure you are using the correct wireless security key).
  - Confirm your selected wireless security is supported by your wireless device.
- 


## LOGGING IN TO THE WEB INTERFACE

1. Open a web browser (such as Internet Explorer, Google Chrome or Firefox), type **http://192.168.20.1** into the address bar and press **enter**.
2. At the login screen, type **admin** into both the Username and the Password fields and click **OK**.



3. Click on the **Wireless** menu at the left of the page and then click on **Basic** options.

4. Ensure **Enable Wireless** is selected.
5. The default SSID (network name) on this example is **“Orcon - Wireless”**. You may change the SSID and press the **“Apply/Save”** button.



**NF4V**

**Device Info**

**Basic Setup**

**Advanced Setup**

**Wireless**

Basic

Security

MAC Filter

Wireless Bridge

Advanced

Station Info

Voice

Diagnostics

Management

Wireless -- Basic

This page allows you to configure basic features of the wireless LAN interface. You can enable or disable the wireless LAN interface, hide the network from active scans, set the wireless network name (also known as SSID) and restrict the channel set based on country requirements. Click 'Apply/Save' to configure the basic wireless options.

Enable Wireless

Enable Wireless Hotspot2.0 [WPA2 is required]

Hide Access Point

Clients Isolation

Disable WMM Advertise


Enable Wireless Multicast Forwarding (WMM)

SSID:

BSSID: 00:60:64:C0:B6:D5

Country:

Max Clients:



Wireless - Guest/Virtual Access Points:

Enabled	SSID	Hidden	Isolate Clients	Enable WMM Advertise	Enable WMMF	Enable HSPOT	Max Clients	BSSID
<input type="checkbox"/>	<input type="text" value="WLAN_Guest1"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="text" value="16"/>	N/A
<input type="checkbox"/>	<input type="text" value="WLAN_Guest2"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="text" value="16"/>	N/A
<input type="checkbox"/>	<input type="text" value="WLAN_Guest3"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="text" value="16"/>	N/A

### Step 3: Scanning for, and connecting to your Wireless Network:

You can now scan for your wireless network and connect to it.

Please click or (Ctrl+Click) the appropriate operating system listed below and follow the steps for operating system specific instructions on how to do this:

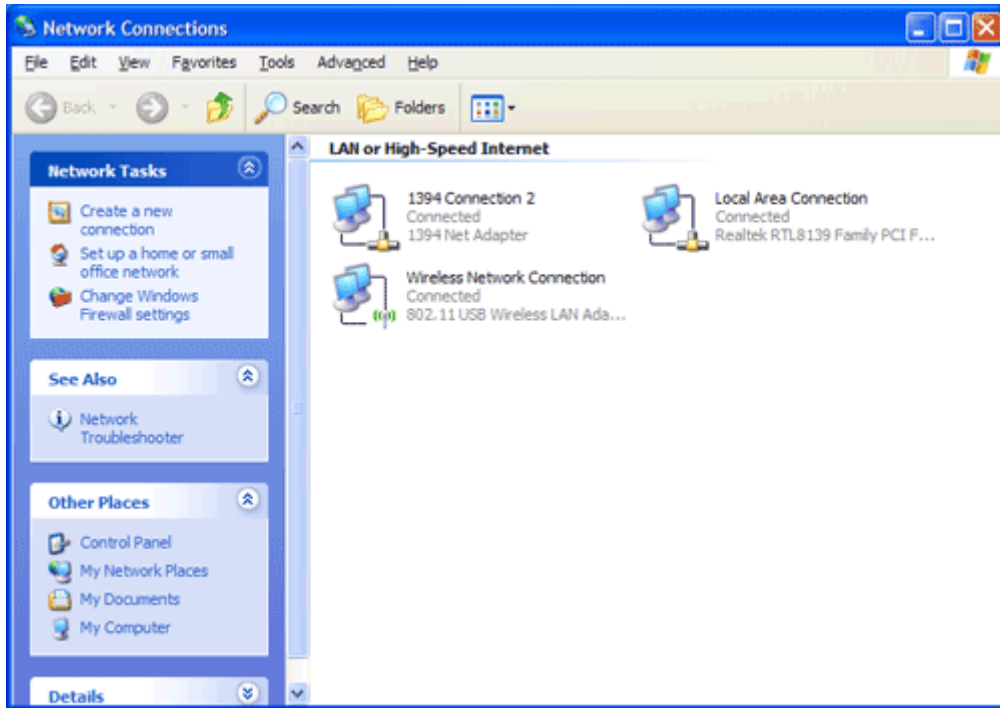


(This page intentionally left blank)

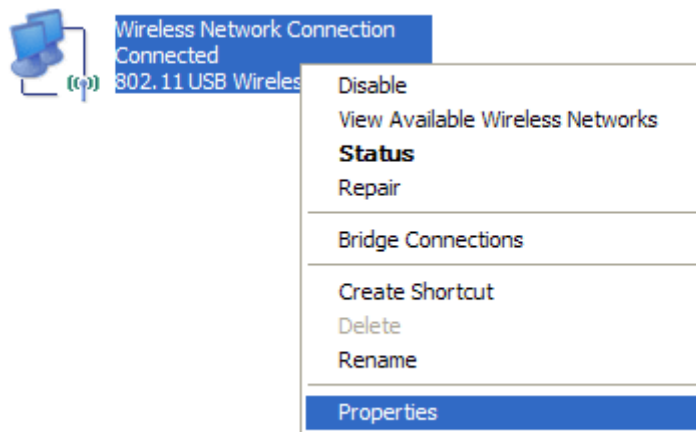


1. Click on the Start Menu and then “Run”. Type: `ncpa.cpl` <and click “OK”>

You should now see the following window:



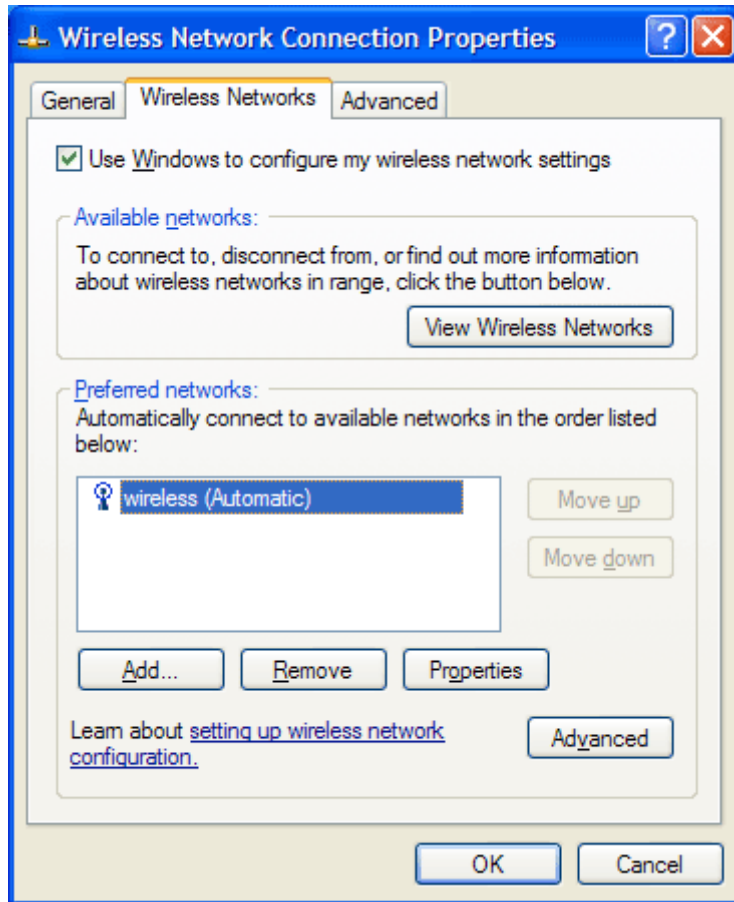
2. Right click on “Wireless Network Connection” and select “Properties”.



If you cannot see a “Wireless Network Connection” item, your wireless adapter may not be installed or inserted correctly. Please check this before continuing with steps in this guide.

3. Click on the "**Wireless Networks**" tab, as shown below.

(If you do not see this tab, you will need to enable and start the "**Wireless Zero Configuration**" service. Please [refer to the steps](#) at the end of the guide to enable this)



Make sure "**Use Windows to configure my wireless network settings**" is **TICKED**.

This window will list any wireless networks you have previously connected to. If you see an entry matching the **SSID** you obtained at the start of this guide, you will need to select it and then click "**Remove**".

(Typically, a number of networks will be listed here. This is nothing to worry about. You can delete the other entries too. These are just stored settings and passwords for connecting to the listed networks.)

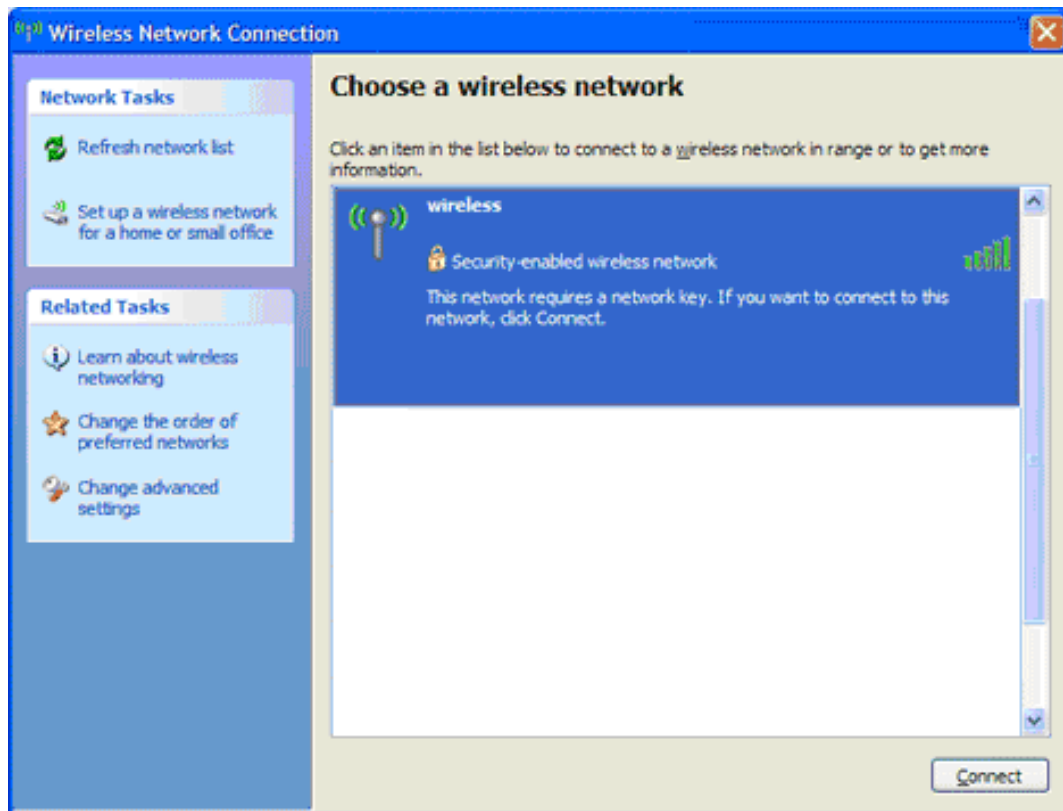
If your **SSID** is not listed, or you have just removed it, click "**OK**".

The window will close and you should now be returned to the "**Network Connections**" control panel window.

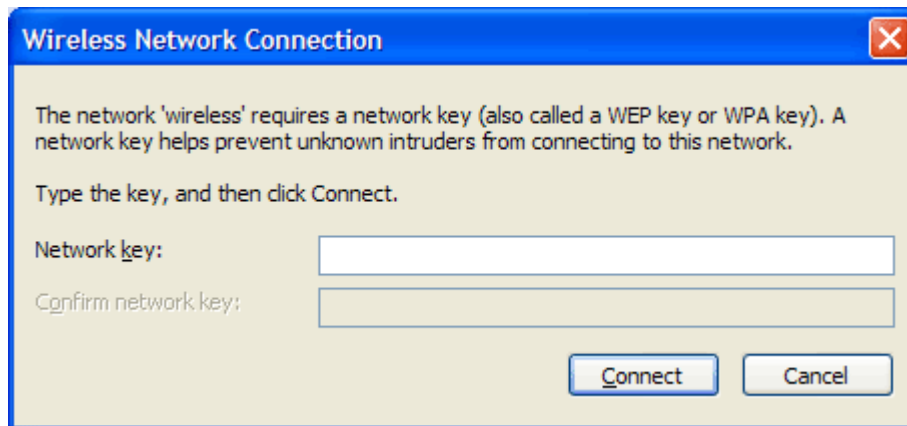
4. Right click on "Wireless Network Connection" and select "**View Available Wireless Networks**".



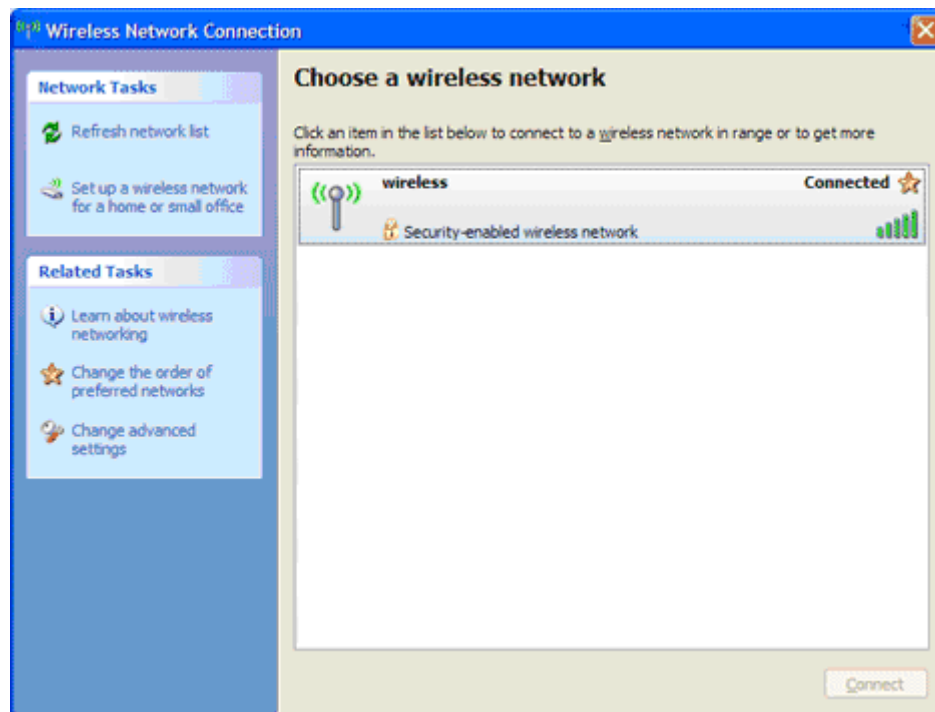
5. You should see a network listed with the **SSID** you obtained at the start of this guide. Select your wireless network and click **Connect**.



6. If you are prompted to enter a “**Security key or passphrase**” (also known as a **WEP** or **WPA** key), please type your “**WPA/WAPI passphrase**” and then click “**OK**”.



7. You should now see the following window listing your network with "**Connected**" showing: (If you do not, you may have entered an incorrect security key, please try following these steps again.)



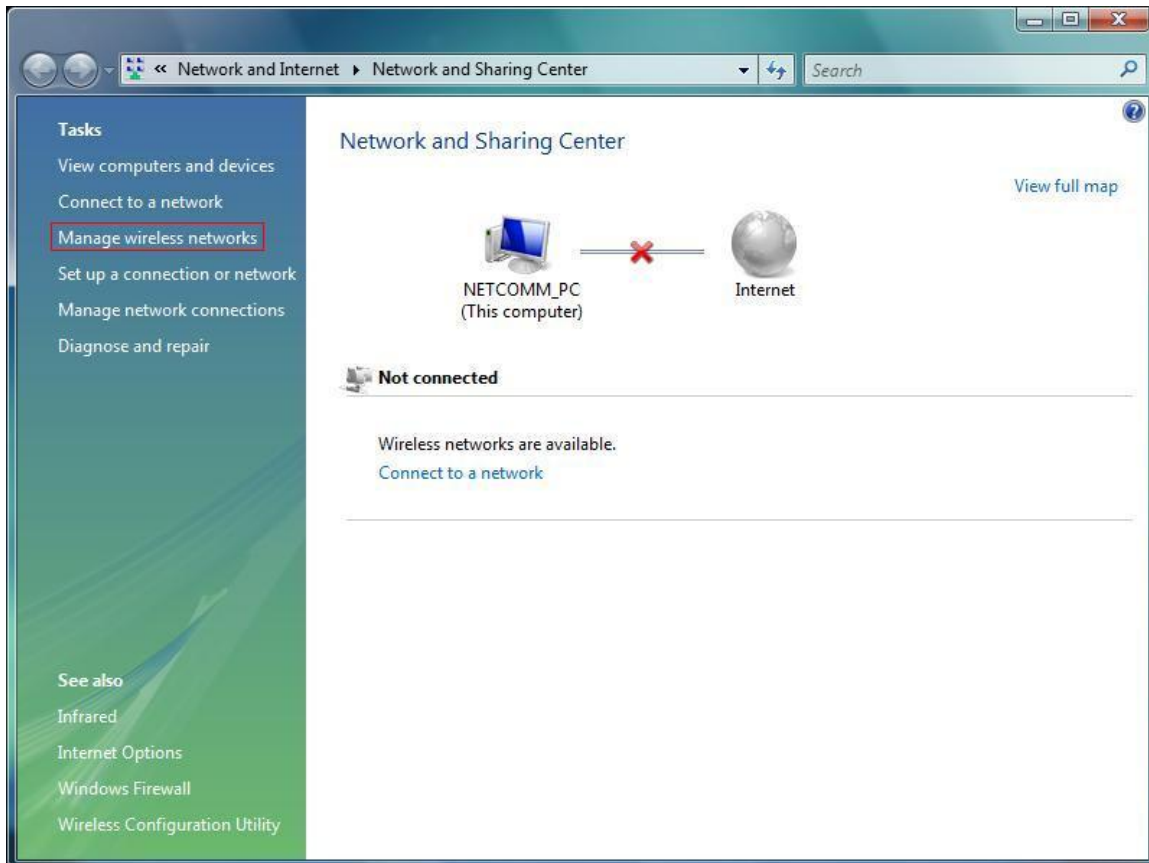
After completing the steps above, you should now be connected to your wireless network and able to surf the internet.

Please remember to disconnect your ethernet cable.

(This page intentionally left blank)

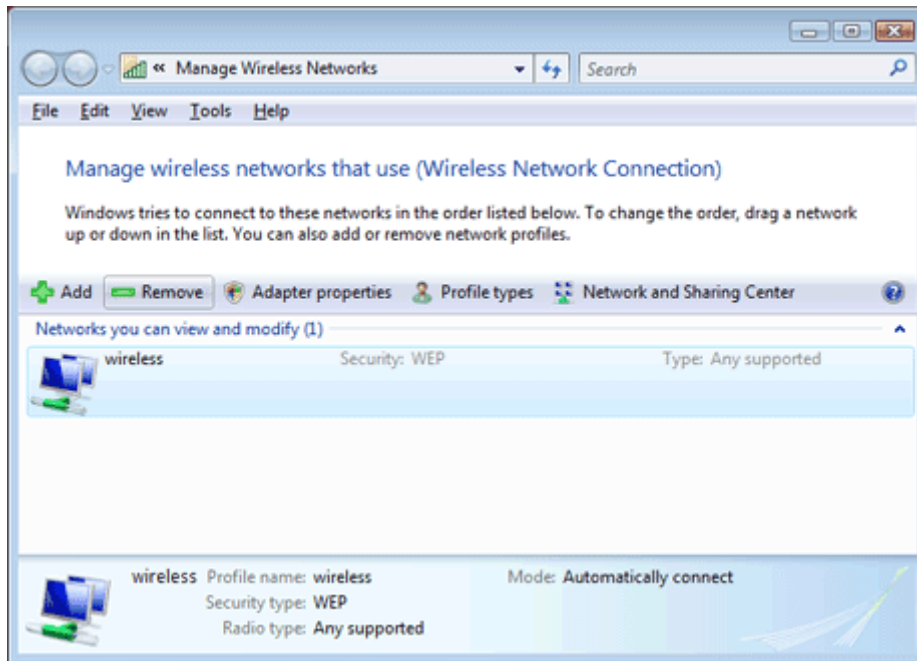


1. Click on the **Start Menu**, and go to "**Control Panel**".
2. Click on "**Network and Sharing Centre**".  
(If you only see "**Network and Internet**", open that first, and then click on "**Network and Sharing Centre**".)
3. You should then see the following window:

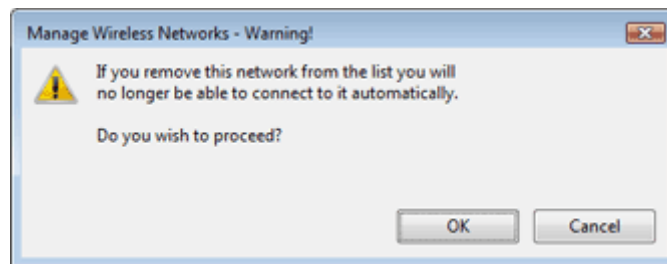


Click on "**Manage wireless networks**" on the left-hand side.

4. You should then see the following:



This window will list any wireless networks you have previously connected to. If you see an entry matching the **SSID** you obtained at the start of this guide, you will need to select it and then click "**Remove**".

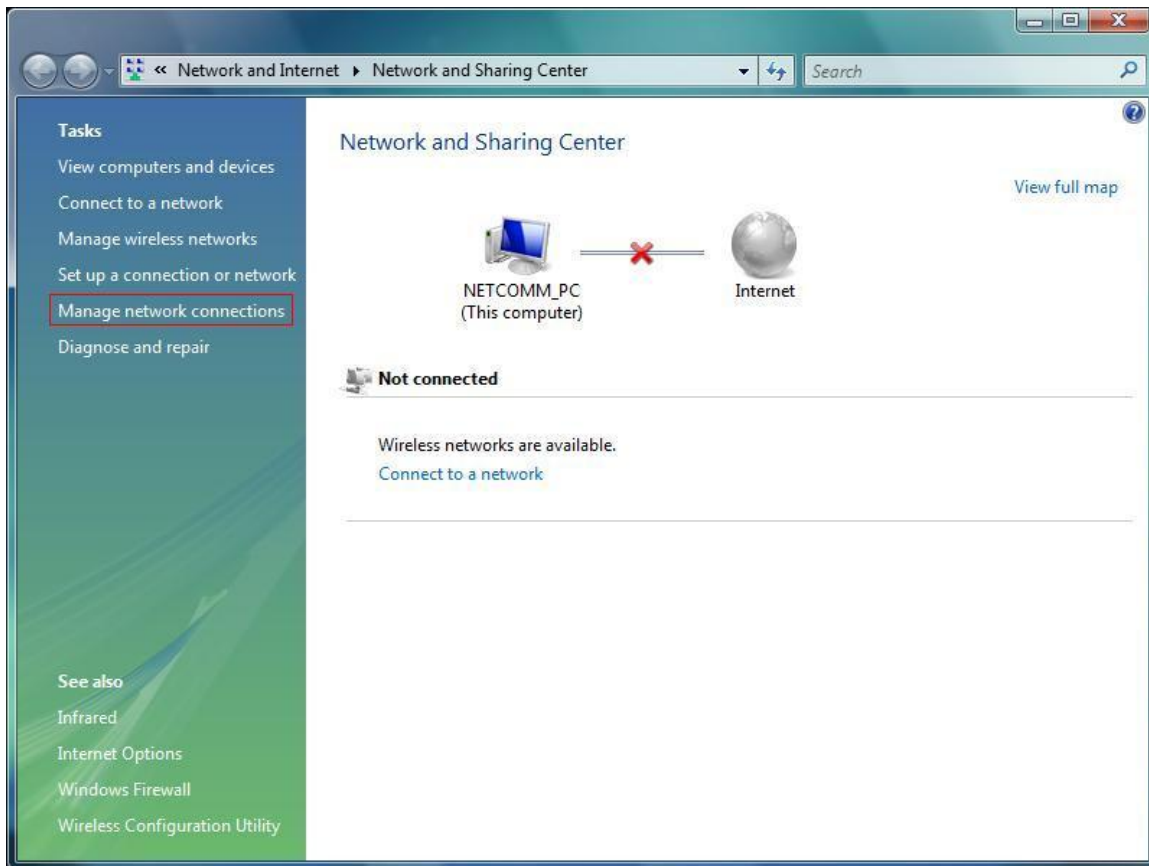


Click "OK" when prompted to proceed.

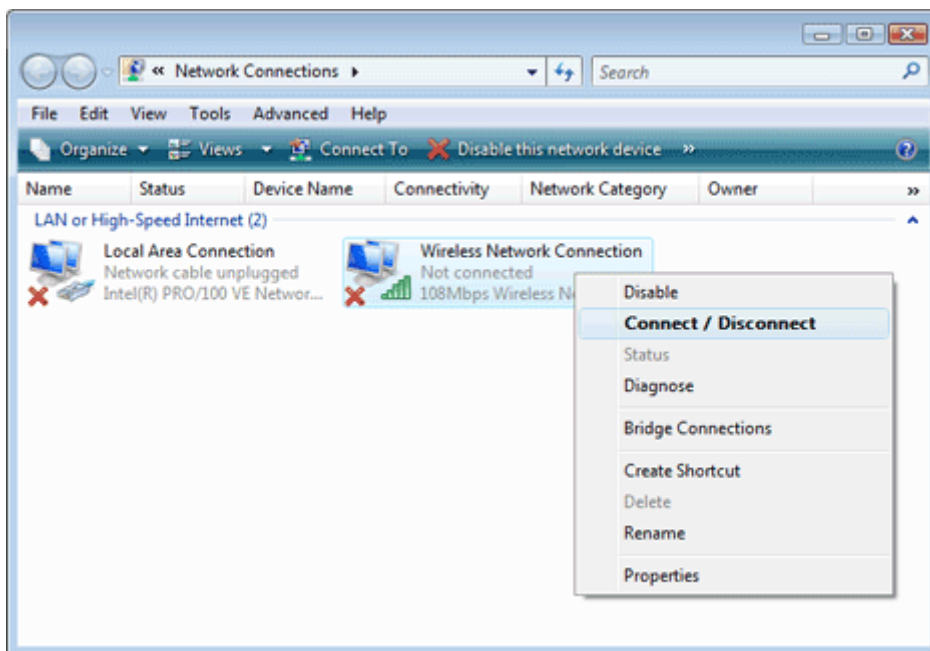
(Typically, a number of networks will be listed here. This is nothing to worry about. You can delete the other entries too. These are just stored settings and passwords for connecting to the listed networks.)

If your **SSID** is not listed, or you have just removed it, close this window and you should be returned to the "**Network and Sharing Center**".

5. Click on "**Manage Network Connections**" on the left-hand side.

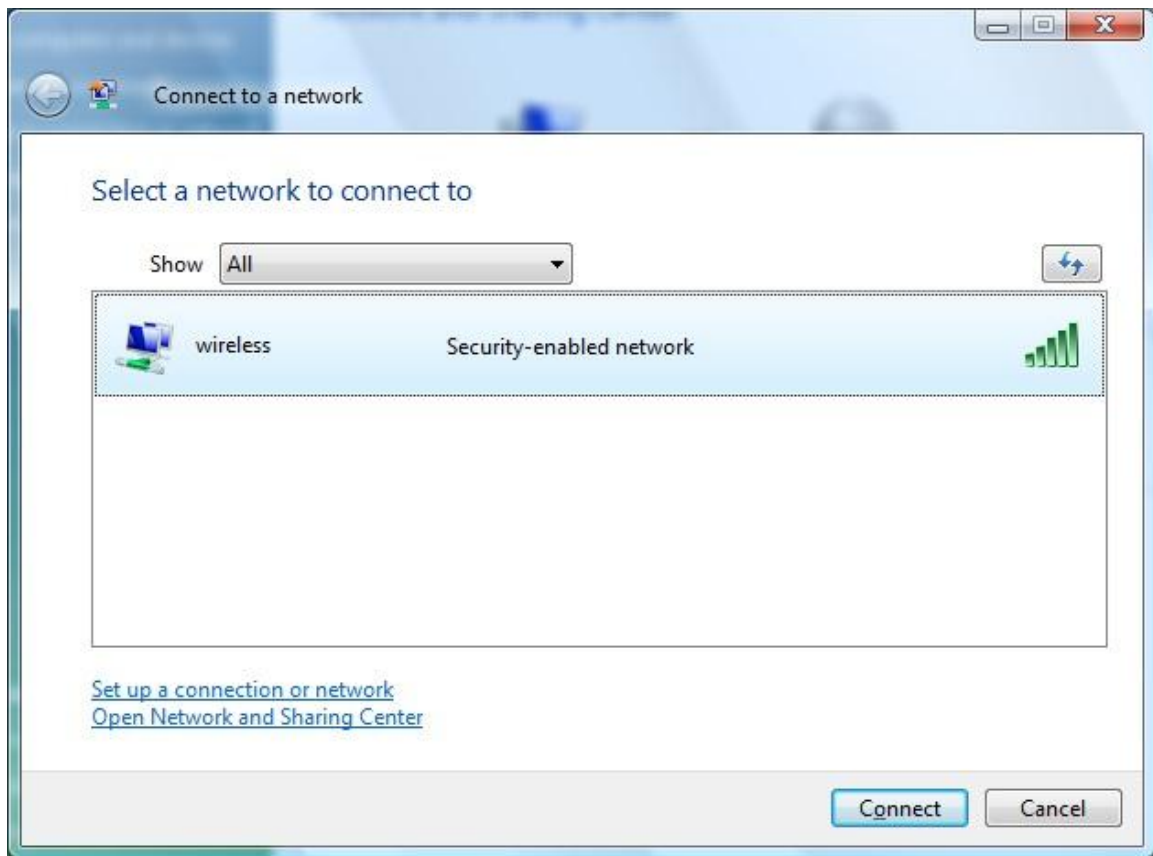


6. Right-click on "**Wireless Network Connection**" and select "**Connect / Disconnect**".

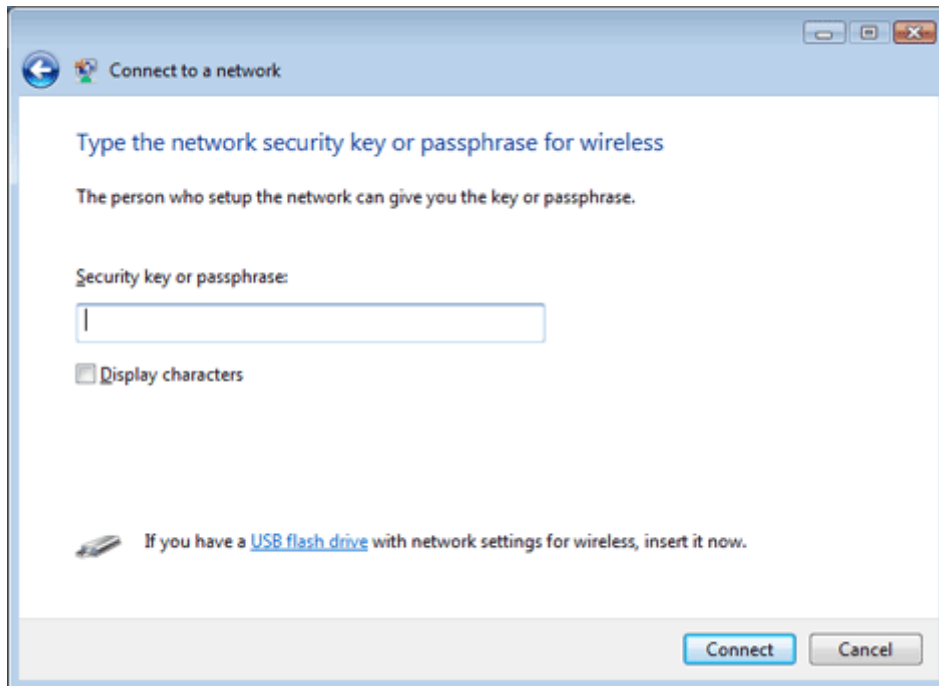


If you cannot see a "Wireless Network Connection" item, your wireless adapter may not be installed or inserted correctly. Please check this before continuing with steps in this guide.

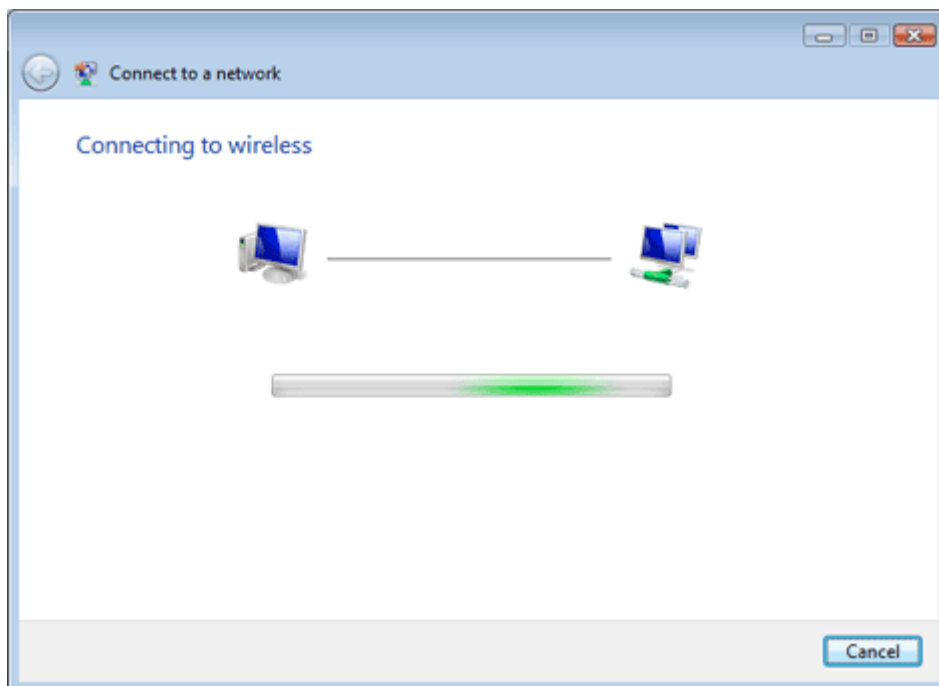
7. You should see a network listed with the **SSID** you obtained at the start of this guide. Select your wireless network and click "**Connect**".



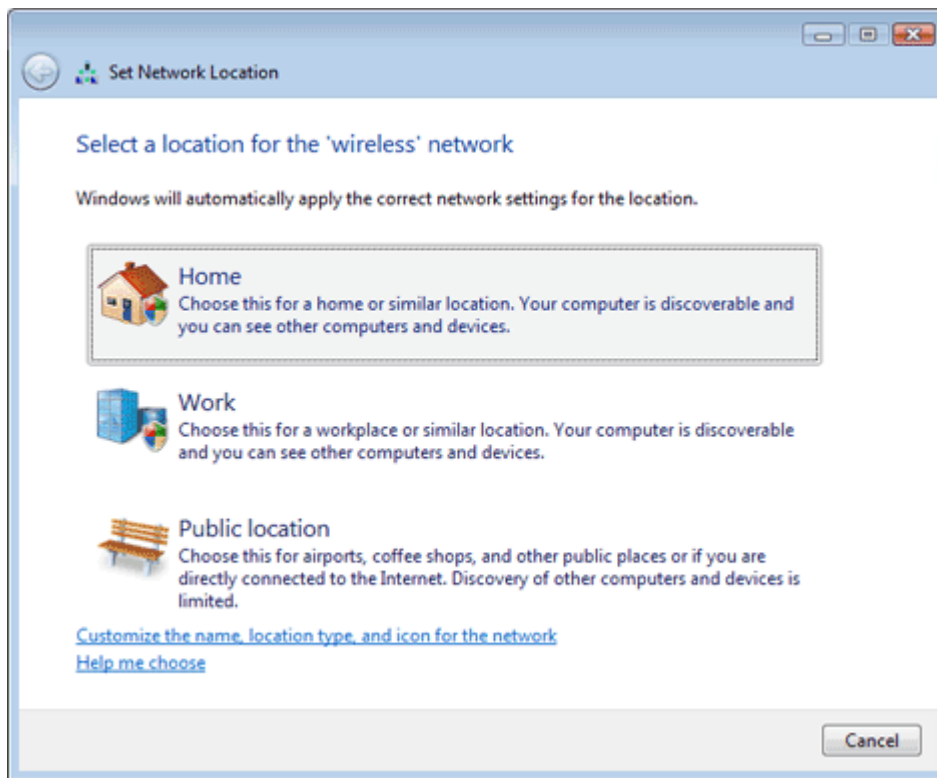
8. If you are prompted to enter a **"Security key or passphrase"** (also known as a **WEP** or **WPA** key), please type your **"WPA/WAPI passphrase"** and then click **"OK"**.



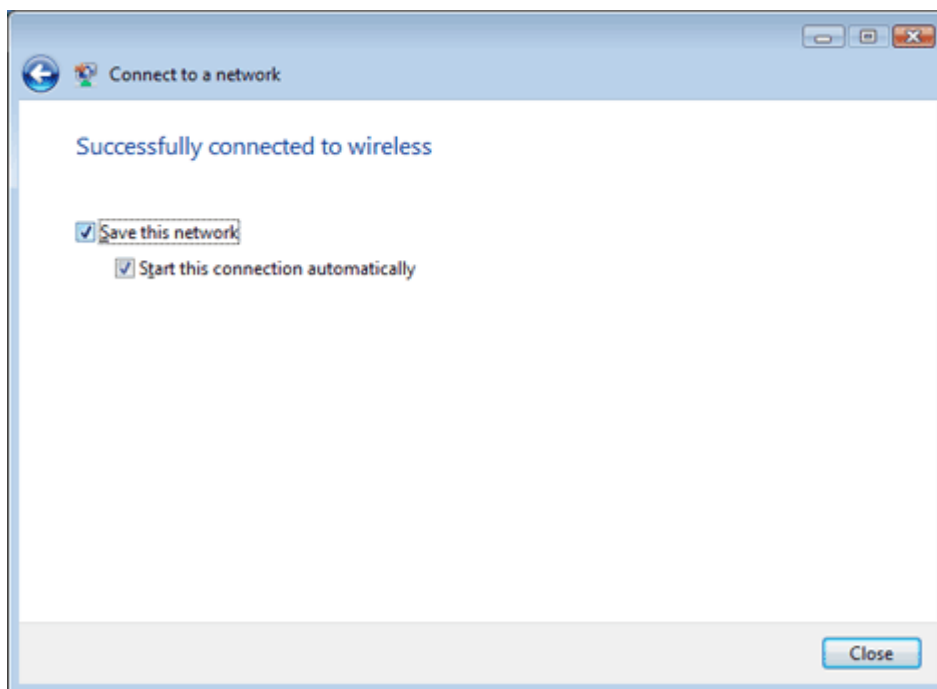
9. You should then see the following page while the wireless connection is started:



10. You may see a window that asks you to **"Select a location for the 'wireless' network"**. Please select the **"Home"** location, as shown below:



11. You should then see a window prompting you to save the wireless connection.
- Make sure "**Save this network**" is **TICKED**.
  - Make sure "**Start this connection automatically**" is **TICKED**.
  - Click "**Close**" to complete the wireless connection process.

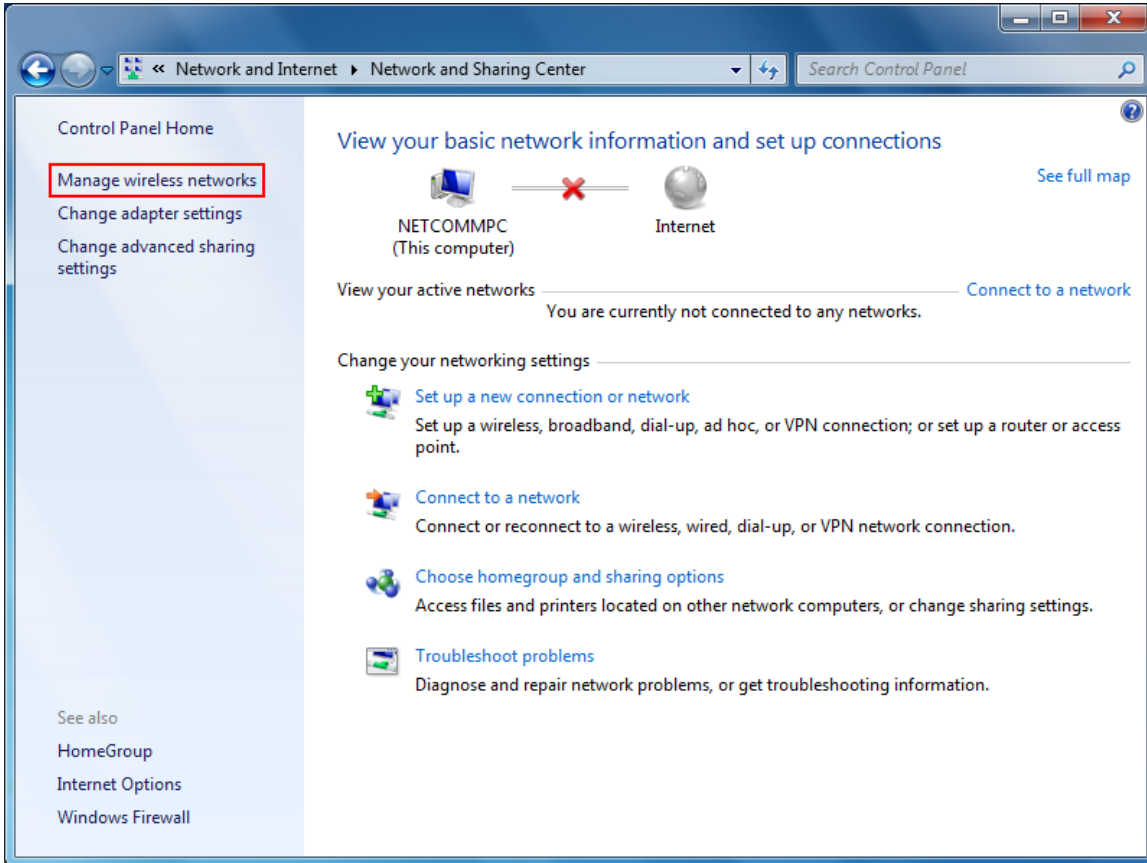


After completing the steps above, you should now be connected to your wireless network and able to surf the internet.  
Please remember to disconnect your ethernet cable.

(This page intentionally left blank)

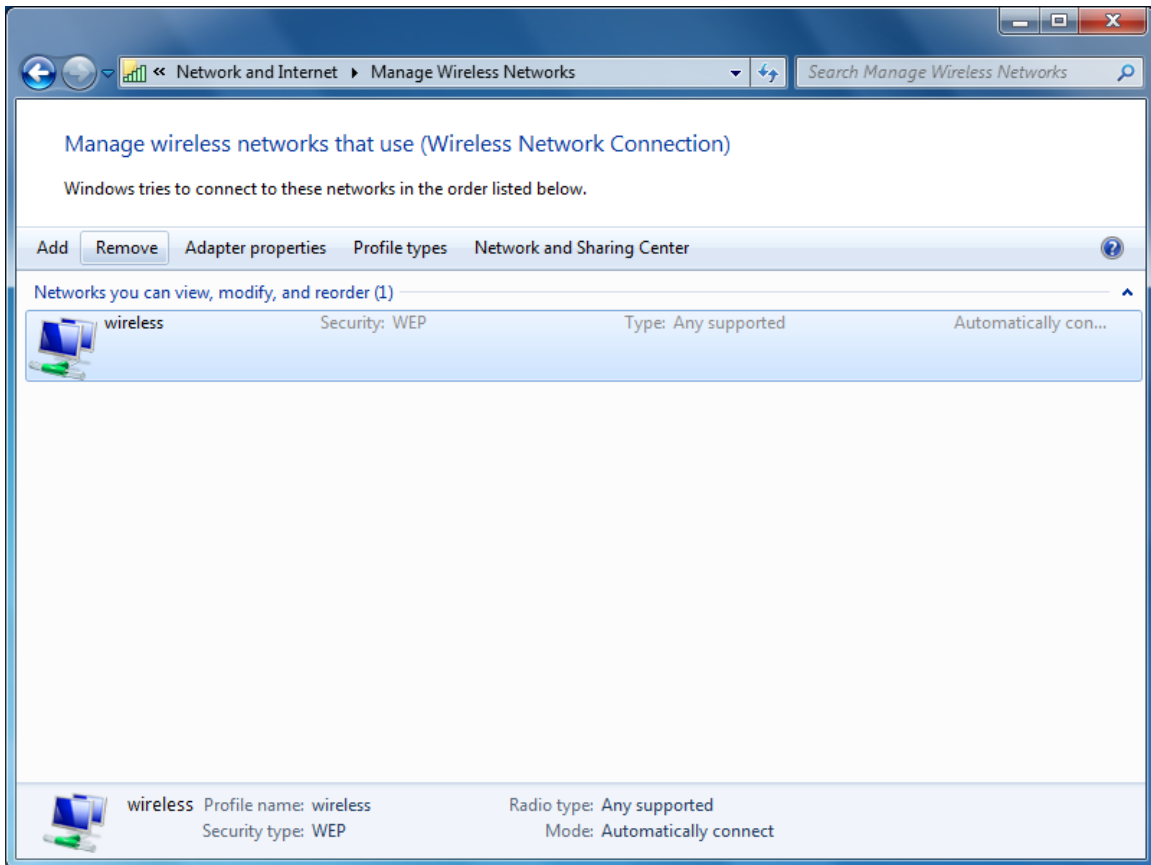


1. Click on the **Start Menu**, and go to "**Control Panel**".
2. Click on "**Network and Sharing Centre**".  
(If you only see "**Network and Internet**", open that first, and then click on "**Network and Sharing Centre**".)
3. You should then see the following window:

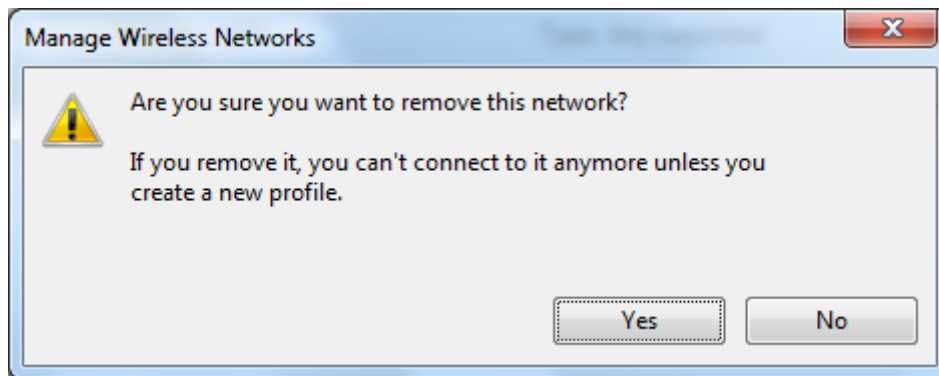


If it is there, click on "**Manage wireless networks**" on the left-hand side. If it is not shown, **please proceed to Step 5**.

4. You should then see the following:



This window will list any wireless networks you have previously connected to. If you see an entry matching the **SSID** you obtained at the start of this guide, you will need to select it and then click "**Remove**".

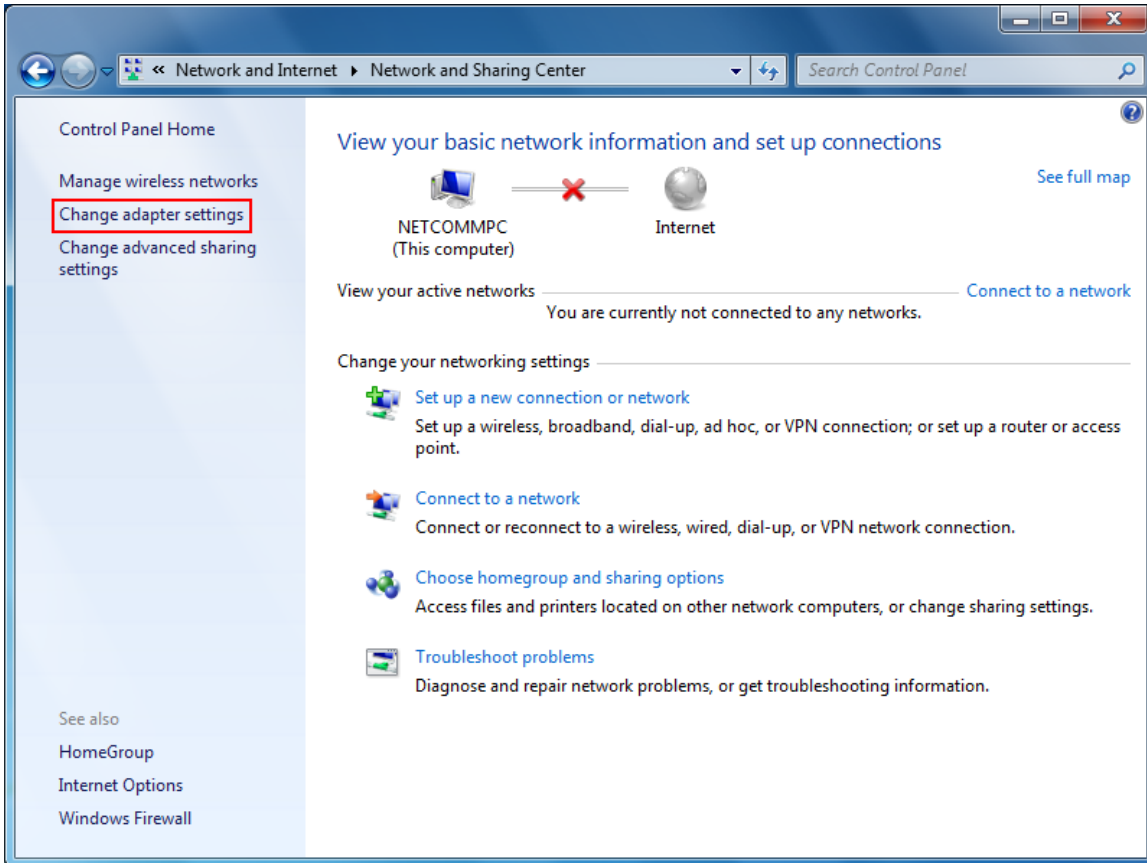


Click "Yes" when prompted to proceed.

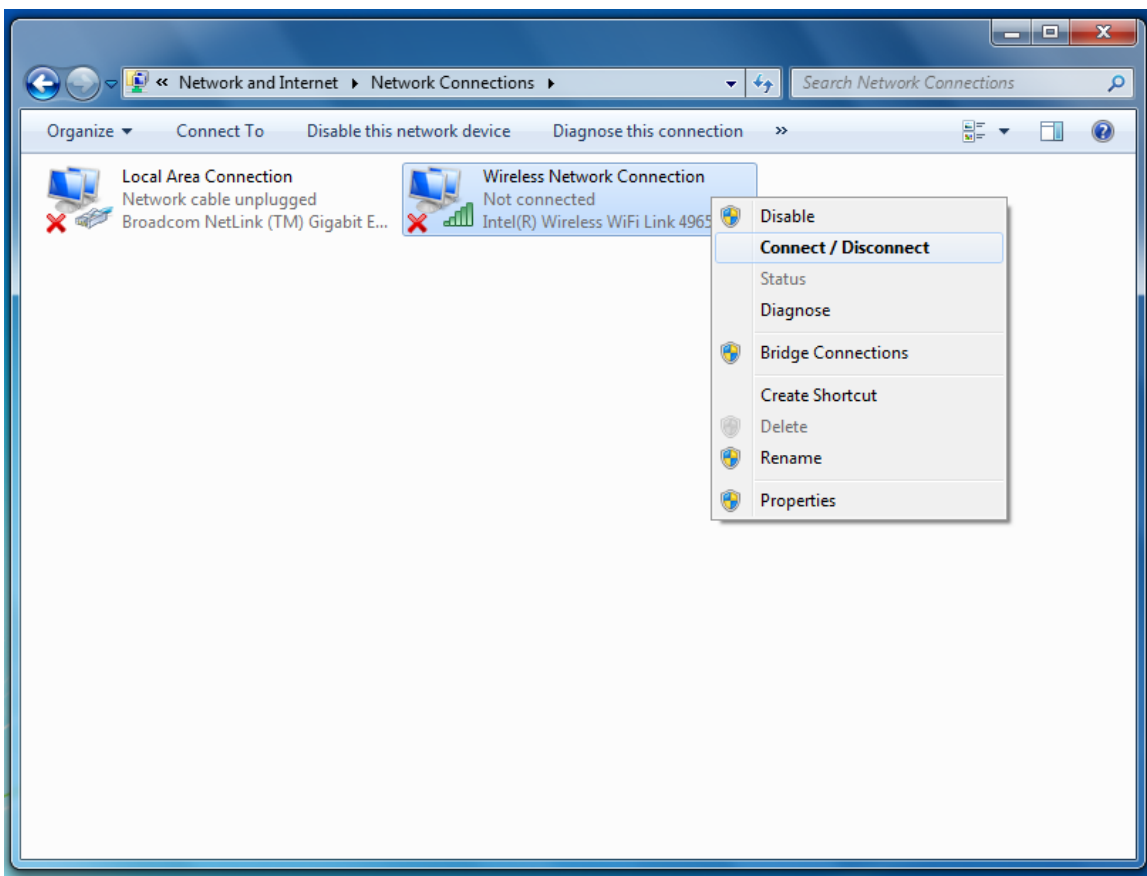
(Typically, a number of networks will be listed here. This is nothing to worry about. You can delete the other entries too. These are just stored settings and passwords for connecting to the listed networks.)

If your **SSID** is not listed, or you have just removed it, close this window and you should be returned to the "**Network and Sharing Center**".

5. Click on **"Change Adapter settings"** on the left-hand side.



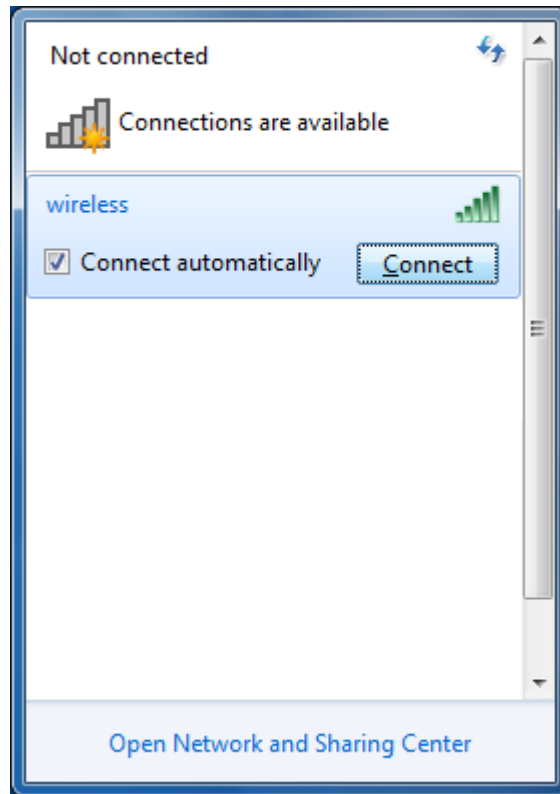
6. Right-click on **"Wireless Network Connection"** and select **"Connect / Disconnect"**.



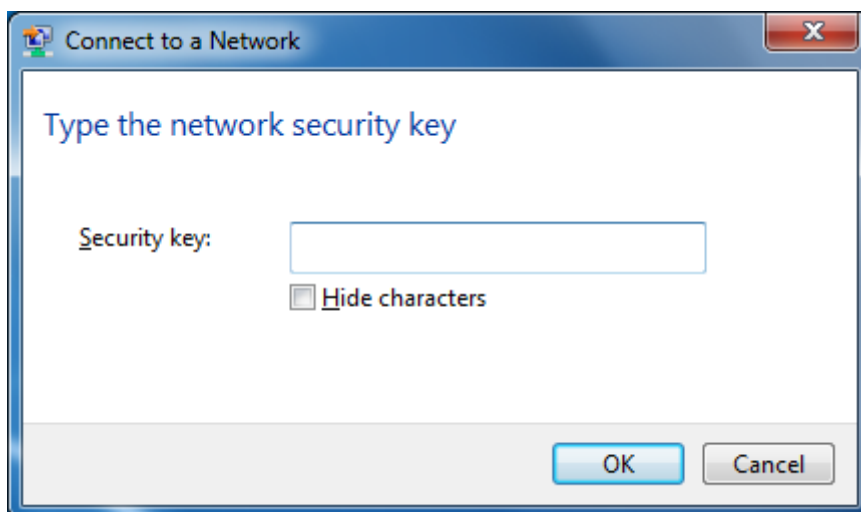


If you cannot see a “Wireless Network Connection” item, your wireless adapter may not be installed or inserted correctly. Please check this before continuing with steps in this guide.

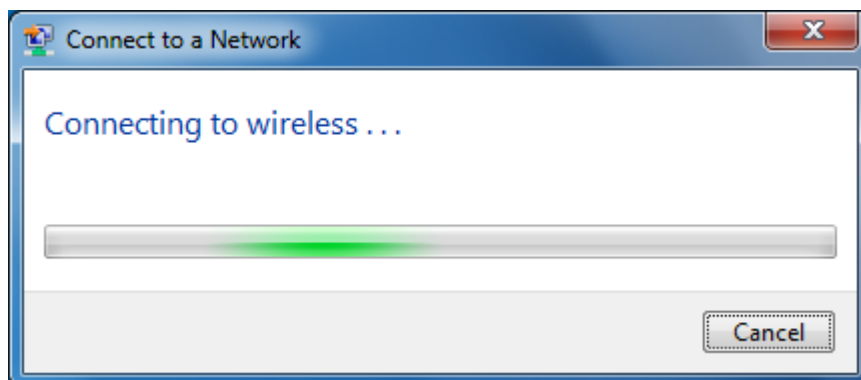
7. You should see a network listed with the **SSID** you obtained at the start of this guide. Select your wireless network and click “**Connect**”.



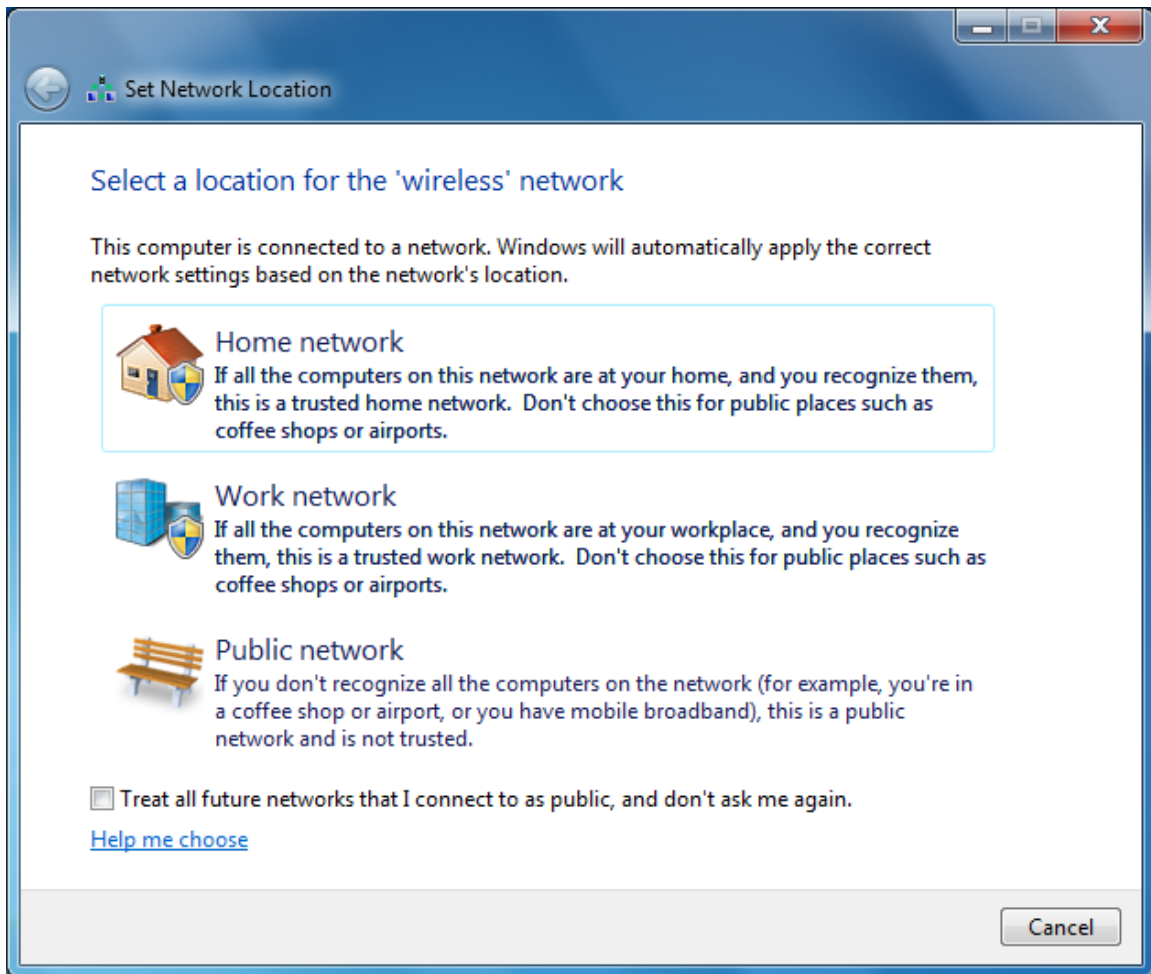
- 8 If you are prompted to enter a “**Security key or passphrase**” (also known as a **WEP** or **WPA** key), please type your “**WPA/WAPI passphrase**” and then click “**OK**”.



- 9 You should then see the following displayed while the wireless connection is started:

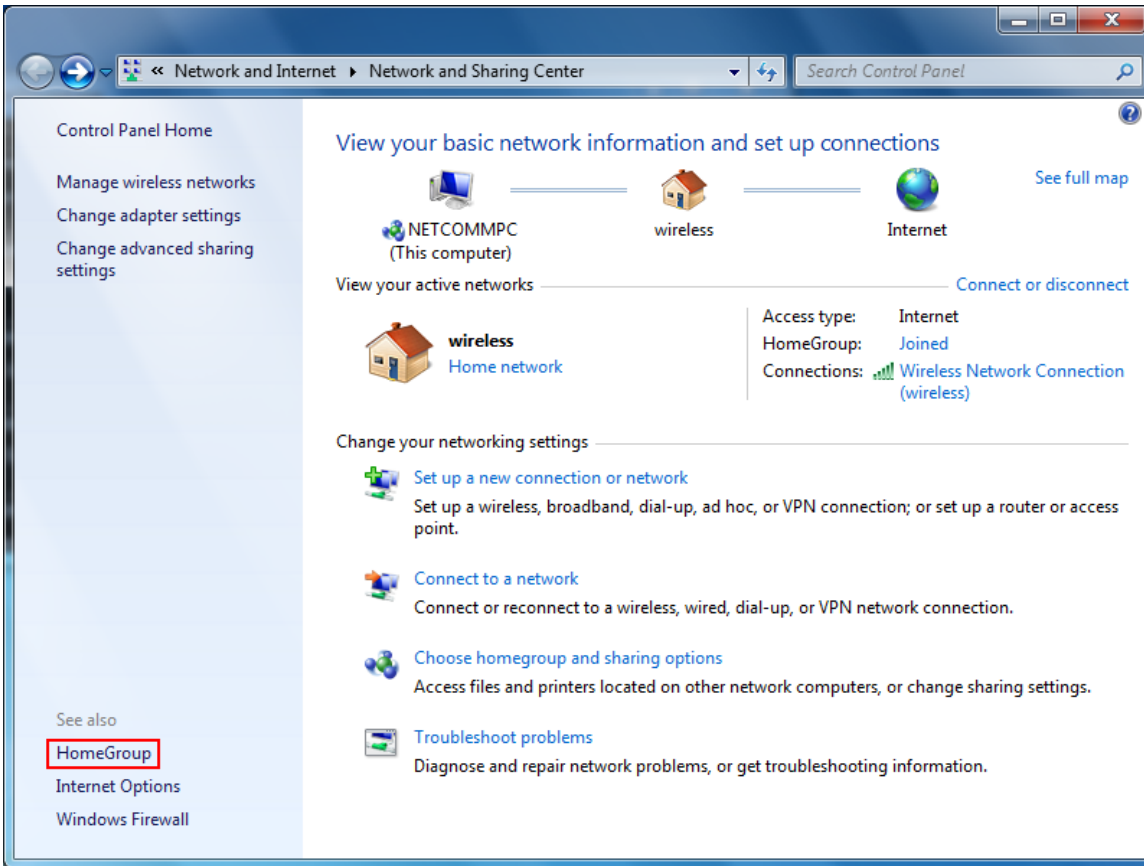


- 10 You may then see a window that asks you to **"Select a location for the 'wireless' network"**. Please select the **"Home"** location, as shown below:



11 You may then see a window prompting you to setup a “HomeGroup”. Click “Cancel” on this.

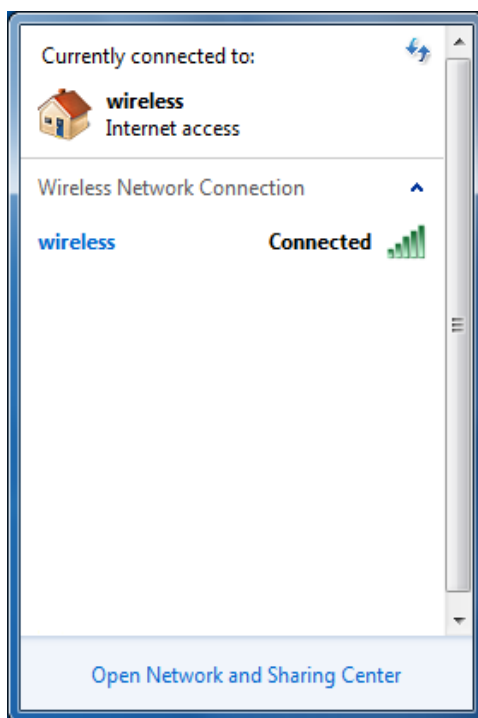
You can come back and complete setting this up at any time by going to the “Network and Sharing Centre” and then clicking on the “HomeGroup” link at the bottom lefthandside of the “Network and Sharing Centre” window as shown below:



12 You can verify your wireless connection by clicking the “Wireless Signal” indicator in your system tray.



After clicking on this, you should see an entry matching the **SSID** you obtained at the start of this guide with “**Connected**” next to it.



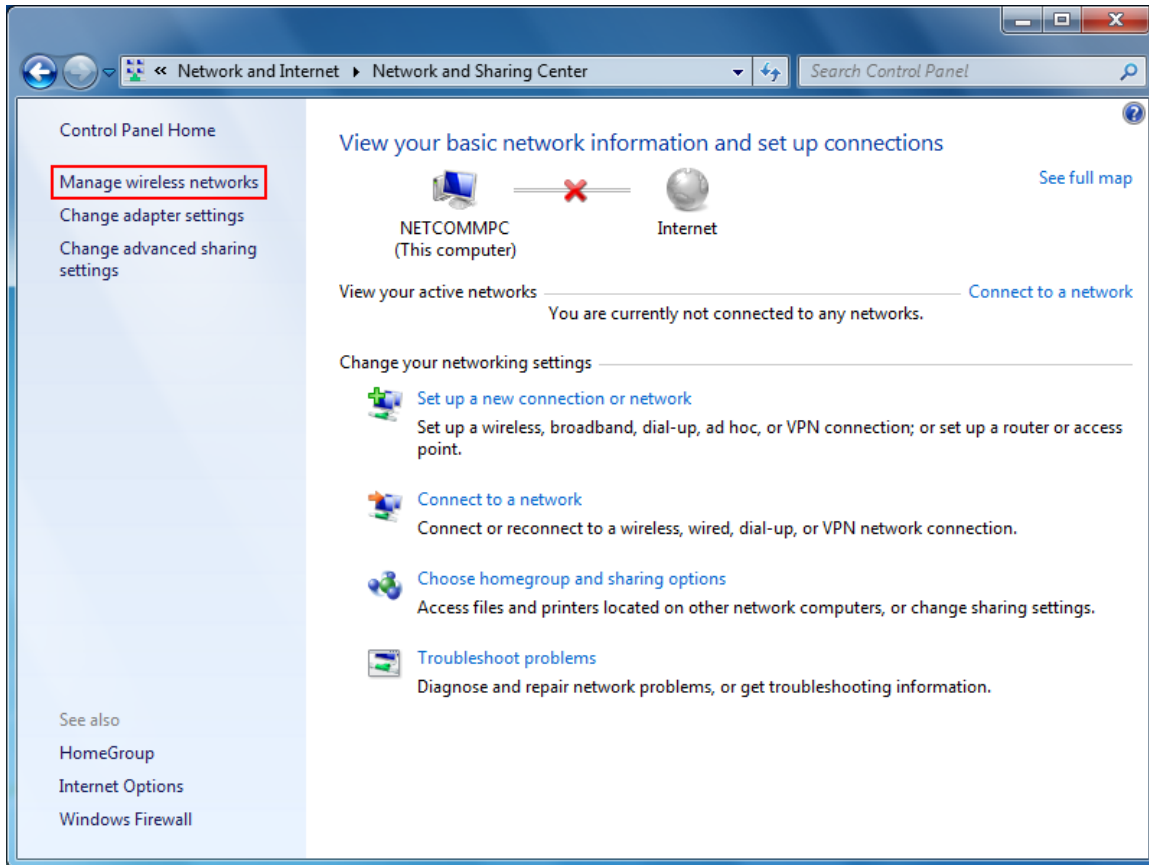
After completing the steps above, you should now be connected to your wireless network and able to surf the internet.

Please remember to disconnect your ethernet cable.

(This page intentionally left blank)

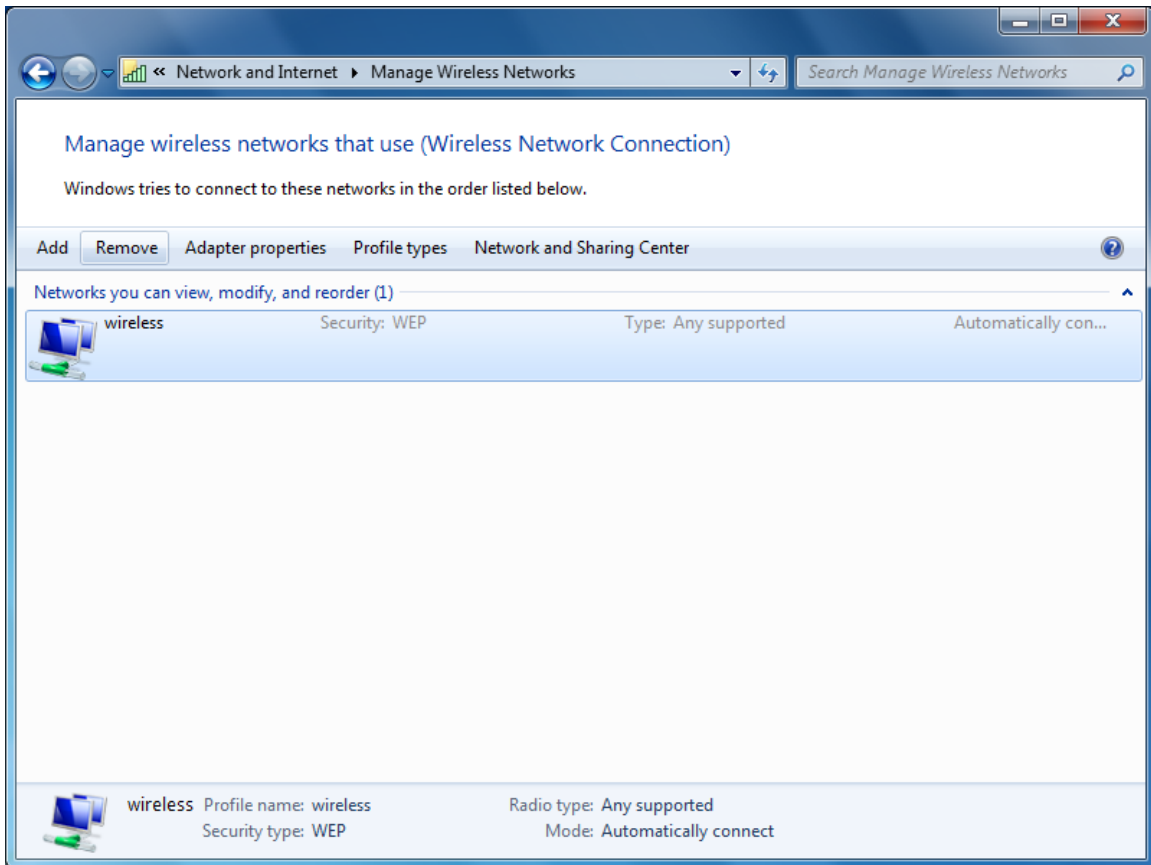


1. In Windows 8 desktop view, move your cursor to the lower right, select settings, and then Control Panel.
2. Click on "**Network and Sharing Centre**".  
(If you only see "Network and Internet", open that first, and then click on "Network and Sharing Centre".)
3. You should then see the following window:

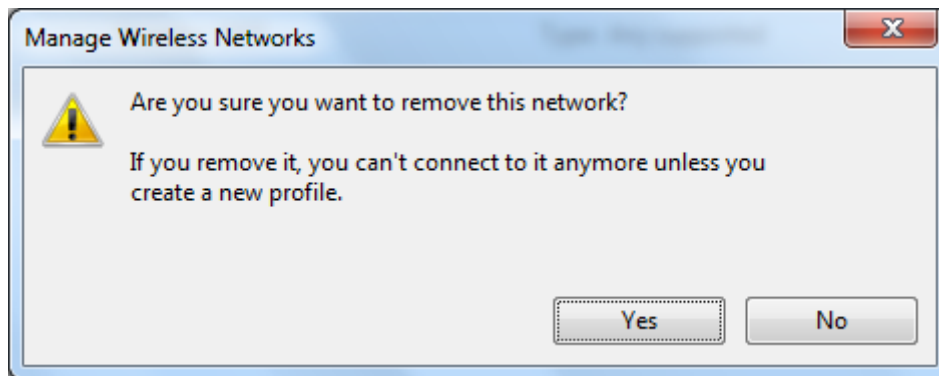


If it is there, click on "**Manage wireless networks**" on the left-hand side. If it is not shown, **please proceed to Step 5**.

4. You should then see the following:



This window will list any wireless networks you have previously connected to. If you see an entry matching the **SSID** you obtained at the start of this guide, you will need to select it and then click "**Remove**".

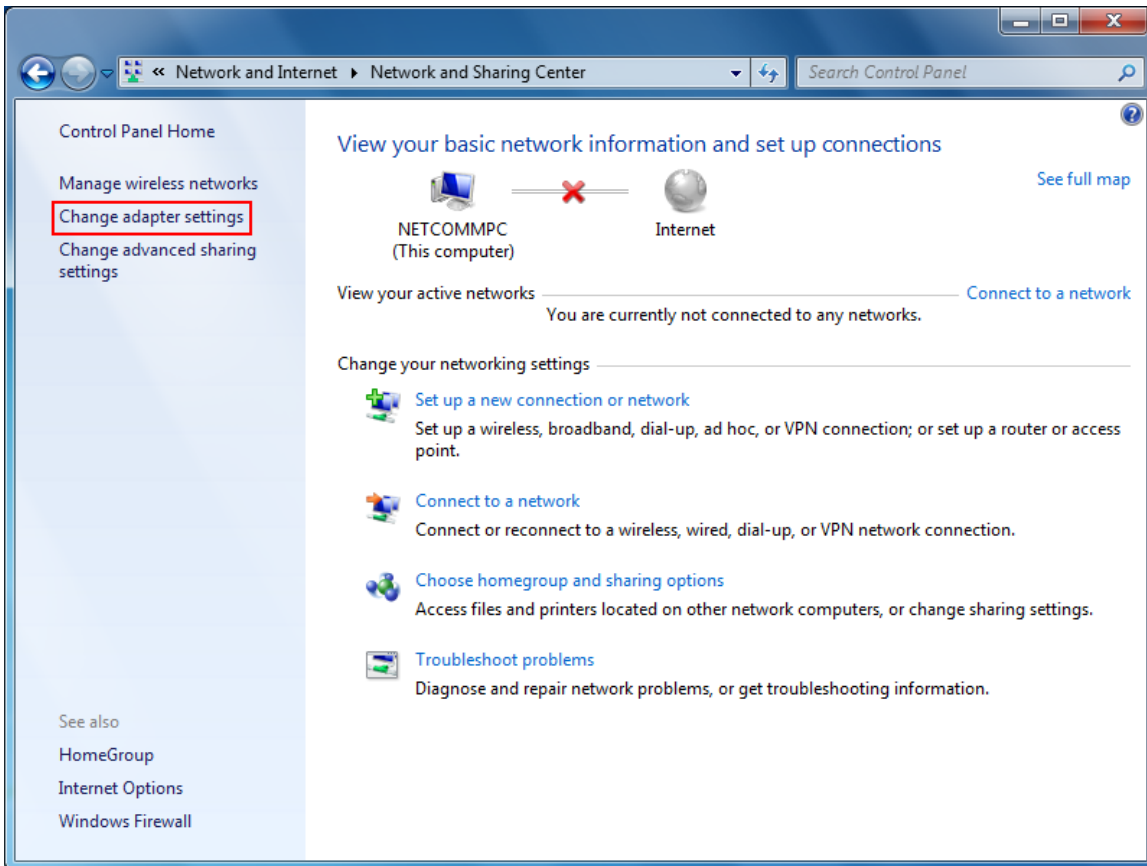


Click "Yes" when prompted to proceed.

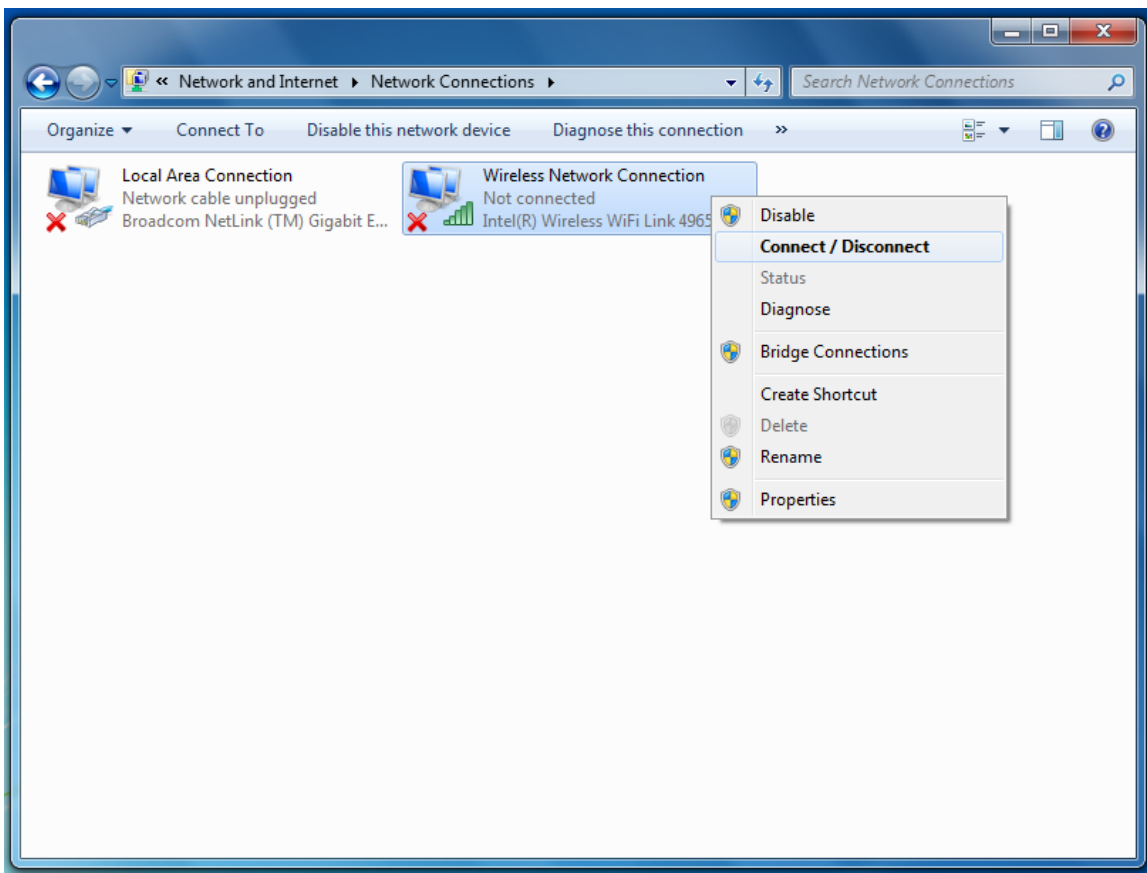
(Typically, a number of networks will be listed here. This is nothing to worry about. You can delete the other entries too. These are just stored settings and passwords for connecting to the listed networks.)

If your **SSID** is not listed, or you have just removed it, close this window and you should be returned to the "**Network and Sharing Center**".

5. Click on **"Change Adapter settings"** on the left-hand side.



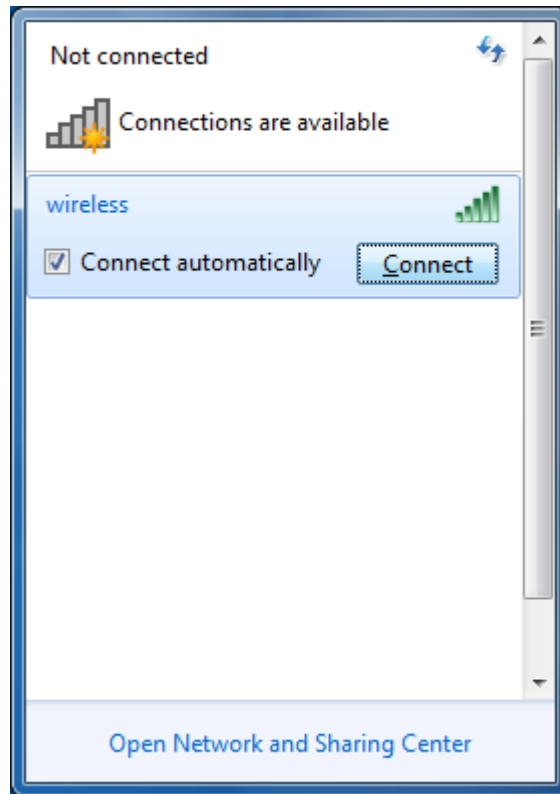
6. Right-click on **"Wireless Network Connection"** and select **"Connect / Disconnect"**.



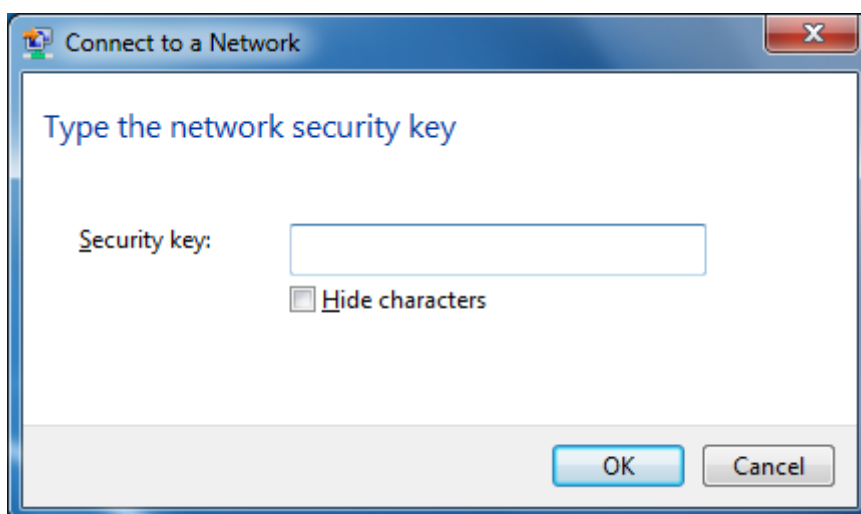


If you cannot see a “Wireless Network Connection” item, your wireless adapter may not be installed or inserted correctly. Please check this before continuing with steps in this guide.

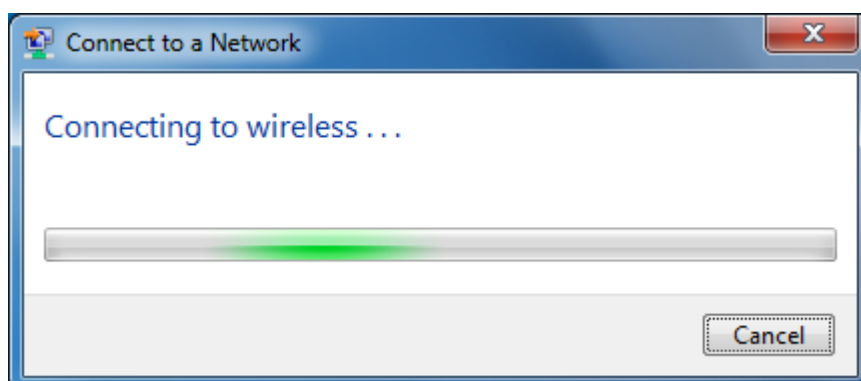
7. You should see a network listed with the **SSID** you obtained at the start of this guide. Select your wireless network and click “**Connect**”.



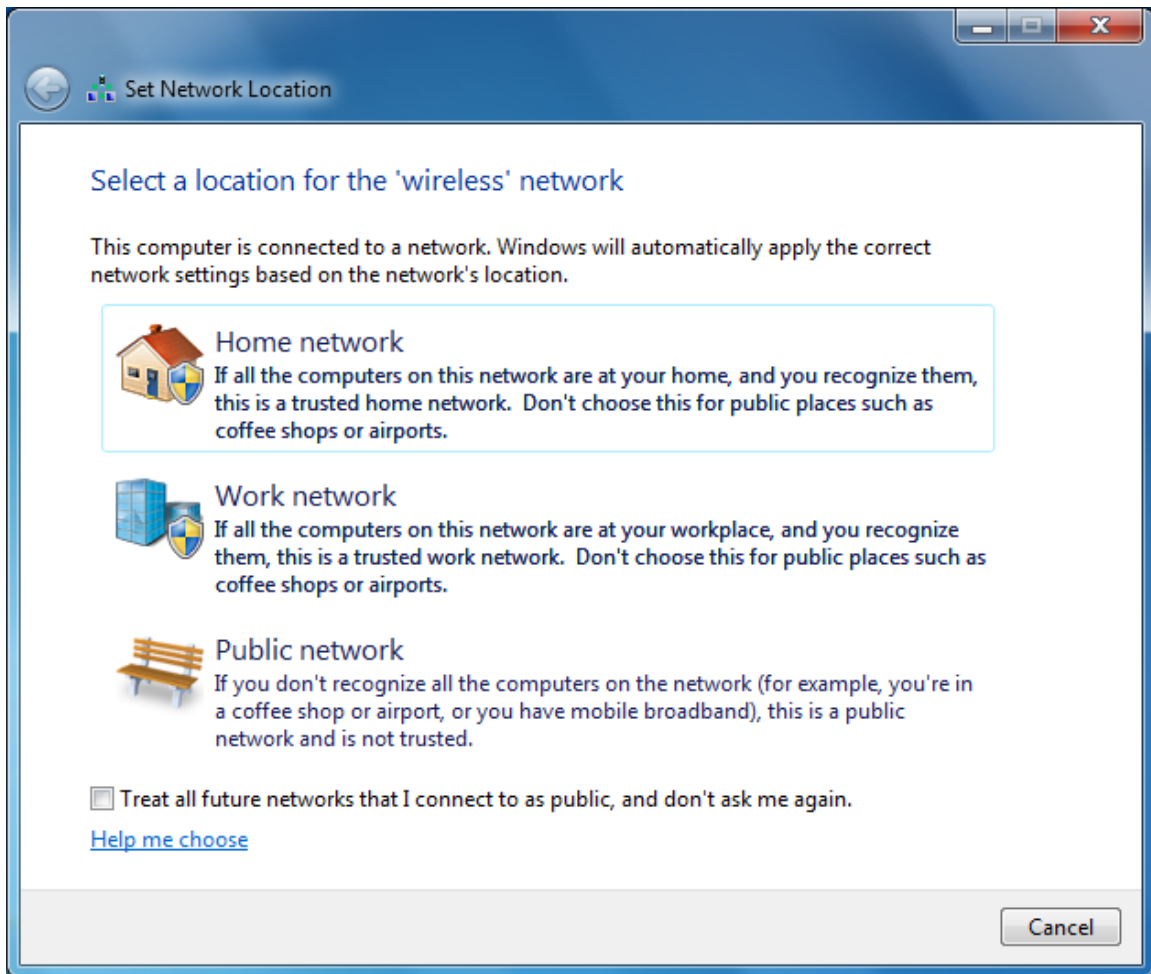
- 13 If you are prompted to enter a **“Security key or passphrase”** (also known as a **WEP** or **WPA** key), please type your **“WPA/WAPI passphrase”** and then click **“OK”**.



- 14 You should then see the following displayed while the wireless connection is started:

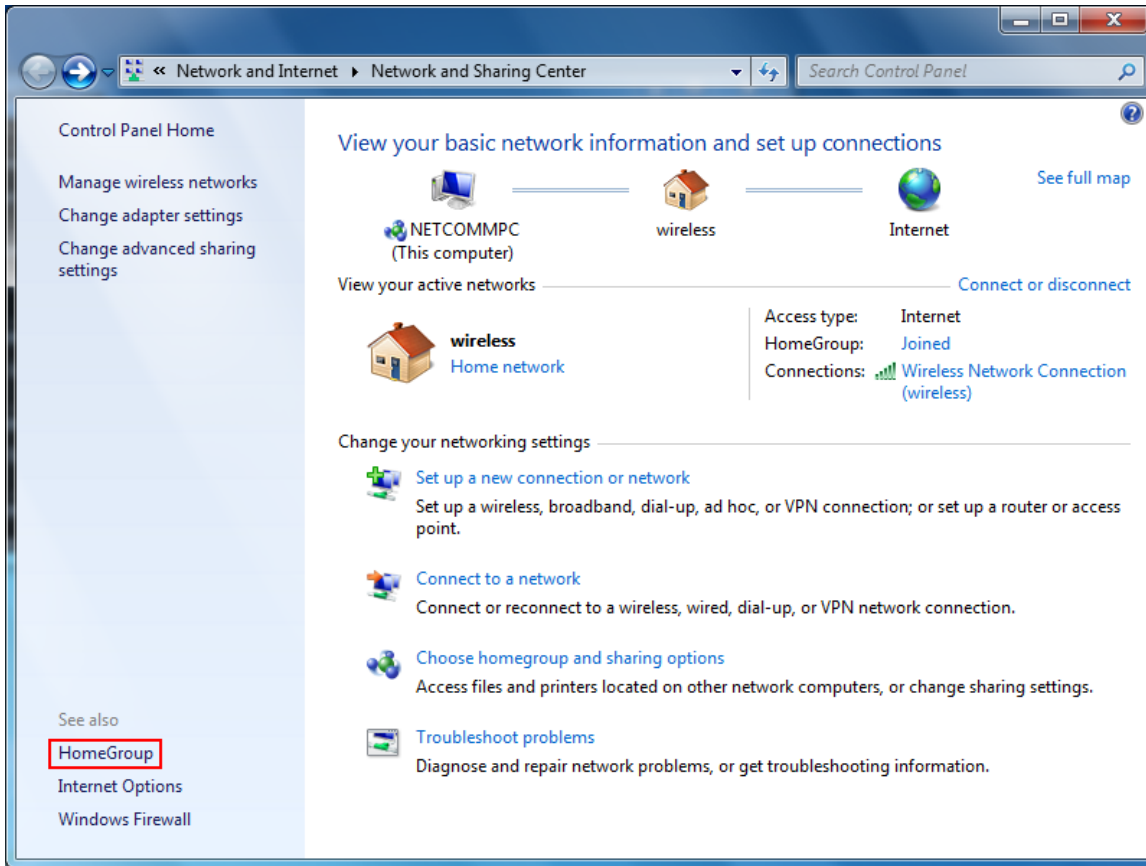


- 15 You may then see a window that asks you to **"Select a location for the 'wireless' network"**. Please select the **"Home"** location, as shown below:



16 You may then see a window prompting you to setup a “HomeGroup”. Click “Cancel” on this.

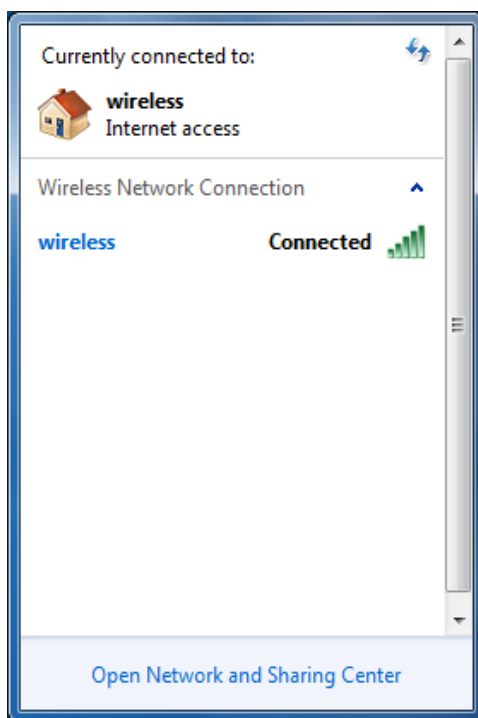
You can come back and complete setting this up at any time by going to the “Network and Sharing Centre” and then clicking on the “HomeGroup” link at the bottom lefthandside of the “Network and Sharing Centre” window as shown below:



17 You can verify your wireless connection by clicking the “Wireless Signal” indicator in your system tray.



After clicking on this, you should see an entry matching the **SSID** you obtained at the start of this guide with “**Connected**” next to it.



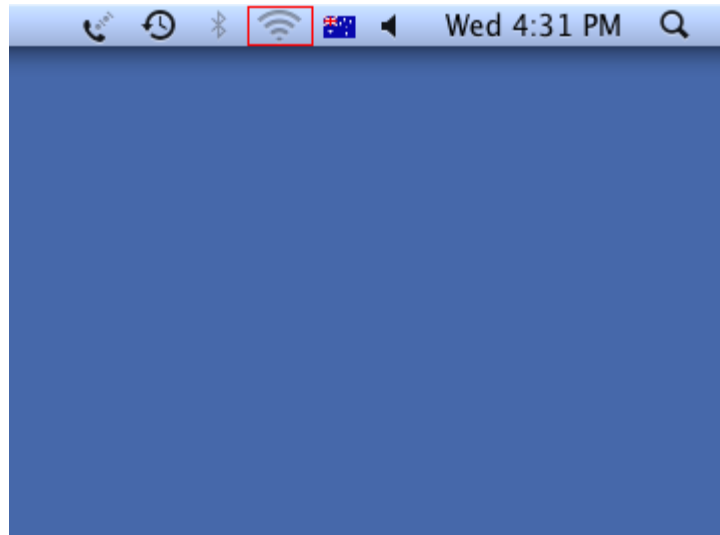
After completing the steps above, you should now be connected to your wireless network and able to surf the internet.

Please remember to disconnect your ethernet cable.

(This page intentionally left blank)



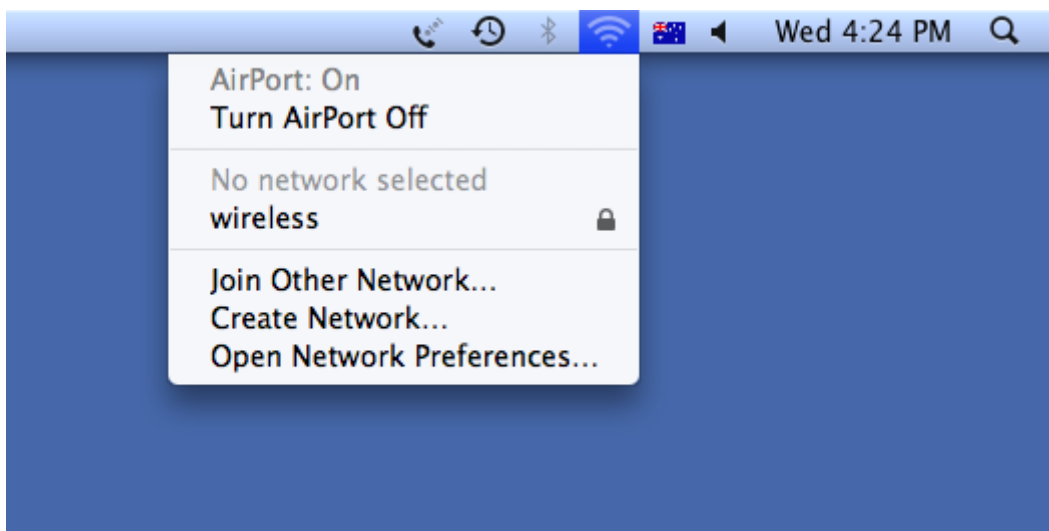
1. Click on the **Airport** icon at the top right corner of the screen on the menu bar, as shown below.



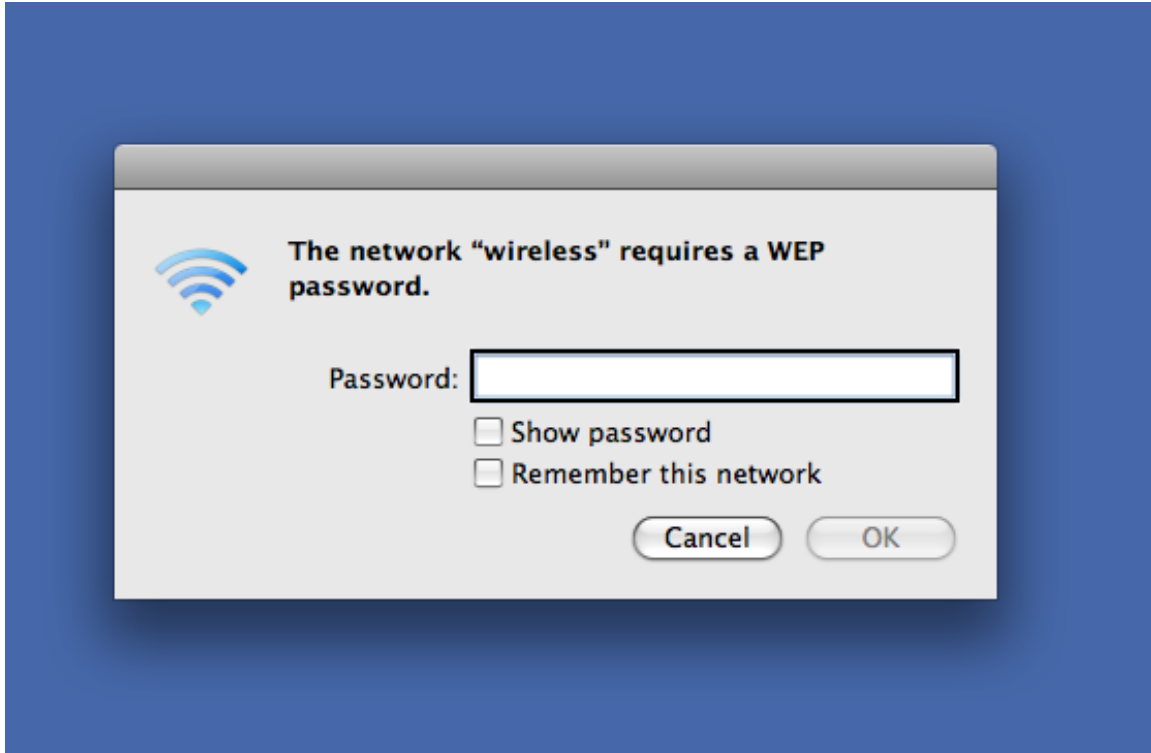
If you cannot see an Airport icon, your wireless adapter may not be installed or inserted correctly. Please refer to your Mac user guide before continuing with the steps in this guide.

2. In the menu that is displayed, you will see a list of wireless networks in range. You should see a network listed with the **SSID** you obtained at the start of this guide.

Click on this **SSID** to elect to connect to this network.

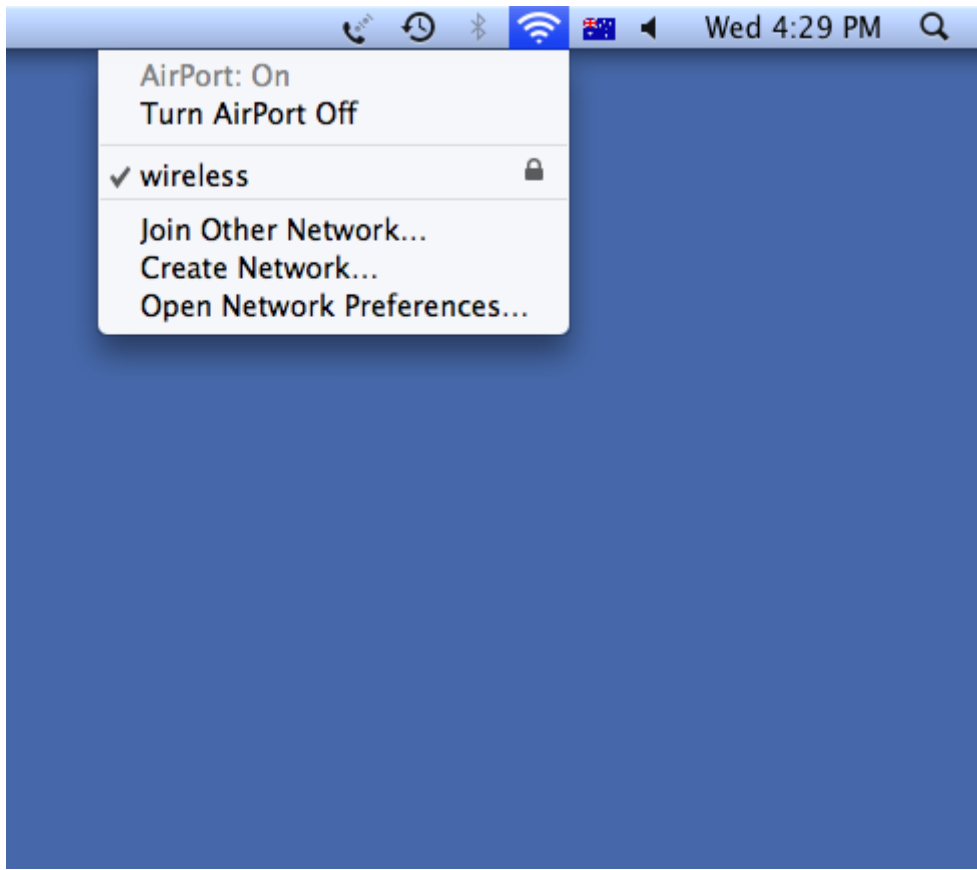


3. If you are prompted to enter a **“Security key or passphrase”** (also known as a **WEP** or **WPA** key), please type your **“WPA/WAPI passphrase”** and then click **“OK”**.



(If you have entered an incorrect wireless security key, a message will appear, and you will be prompted to try entering the correct key again. When you enter the correct wireless security key, this window should disappear.)

- The Airport icon will now have black lines to indicate signal strength.  
To see if the wireless is connected, click on the Airport icon again. The network that has a **TICK** next to it is the network that you are currently connected to.



After completing the steps above, you should now be connected to your wireless network and able to surf the internet.

Please remember to disconnect your ethernet cable.

(This page intentionally left blank)



### Enabling Wireless Zero Configuration

Some wireless adapters have a 3rd party utility installed which controls the configuration and connection profiles of the wireless adapter.

In these cases, it is necessary to enable a service called "**Wireless Zero Configuration**". The steps to do this are listed below:

1. Click on the Start Menu. Click on "**Run**", and type: services.msc <and then click "**OK**">.
2. Scroll down to the bottom of the list and locate the service called "**Wireless Zero Configuration**" and double left click on it.
3. Change the "**Startup type**" to "**Automatic**", and then check the "**Service status**" below this;
  - If the "**Service status**" is "**Started**", click "**OK**".
  - If the "**Service status**" is "**Stopped**", press the "**Start**" button on the lower left side of the window and then wait until the service has started. When it has, click "**OK**".
4. Close the Services window.

