WINDOWS 7 WIRELESS CONFIGURATION AND TROUBLESHOOTING

Step 1: Turning on your Wireless Device

The first step of the process is to ensure that your wireless device is turned on. Depending on your computer brand and model, the steps for doing so will vary. Use the method below that works with your computer.

Many laptop computers have a built-in wireless device that can be enabled through a **switch or button located on the exterior of the computer**. When the switch is slid to a certain direction or the button is pressed, an indicator on the exterior of the computer should be lit to let you know that the device is on.

Other laptop computers have a key on the keyboard labeled **Fn.** This key is located in the bottom left corner of the keyboard near the Windows key. On one of the function keys at the top of the keyboard (F1, F2, F3, F4, etc.) There will be a symbol resembling a tower emitting waves. By holding down the Fn and pressing the appropriate function key, the device will turn on and an icon showing ascending bars such as the one pictured below will appear in the task tray on the bottom-right corner of your screen.


Desktop computers and some older laptops do not have a built in wireless device. These laptops require a device to be plugged into them. When the device is plugged in, it should **turn on automatically**. The icon above will appear in the task tray on the bottom right corner of your screen.

Step 2: Bringing up the Control Panel

Click the **Start** button. Then, click **Control Panel**.
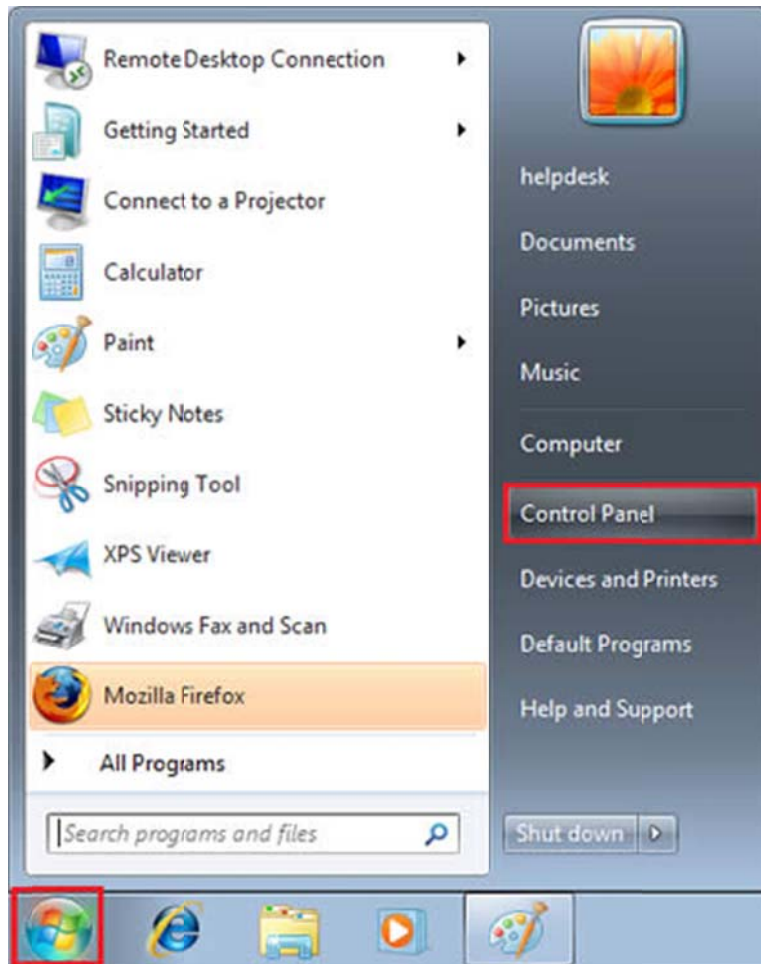
Step 3: Removing Bridged Connections

Once the Control Panel is open, click the **View network status and tasks** link.

A list of connections should appear. If you see an entry titled **Bridged Connection**, right-click on it. A pop-up menu will appear. Click **Remove from Bridge**. Repeat this process for each bridged connection displayed.
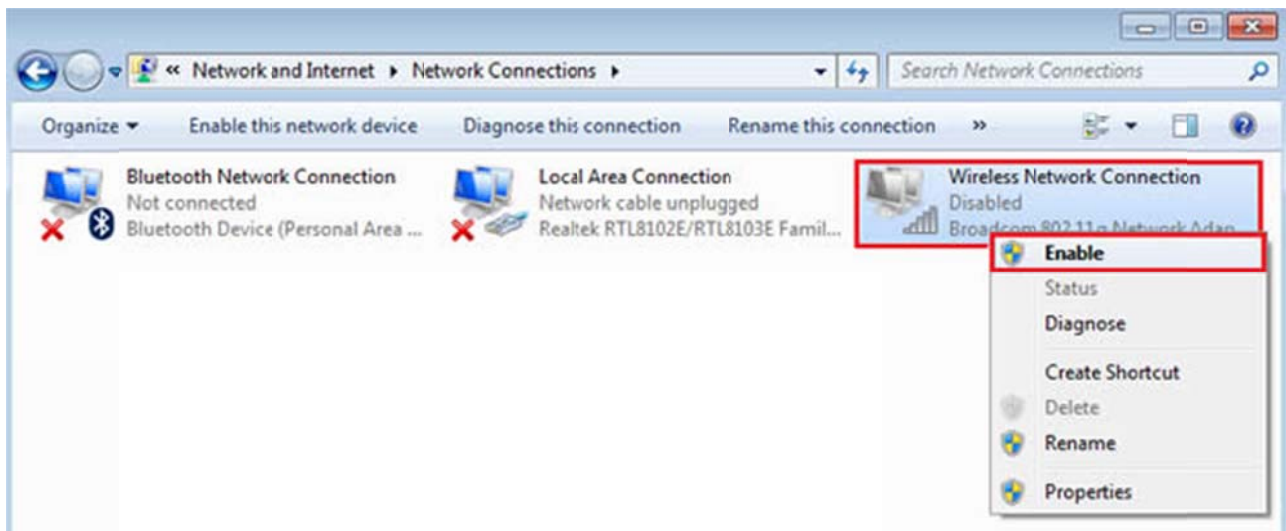

Step 4: Modifying the Adapter Settings

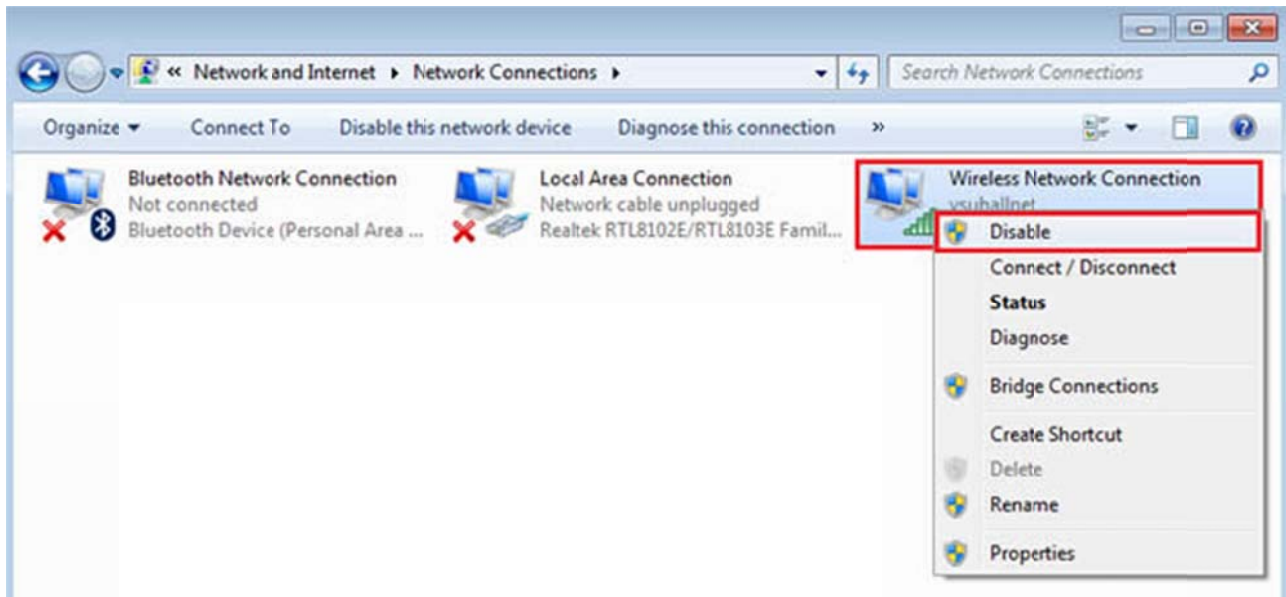In the left sidebar, click the **Change adapter settings** link.
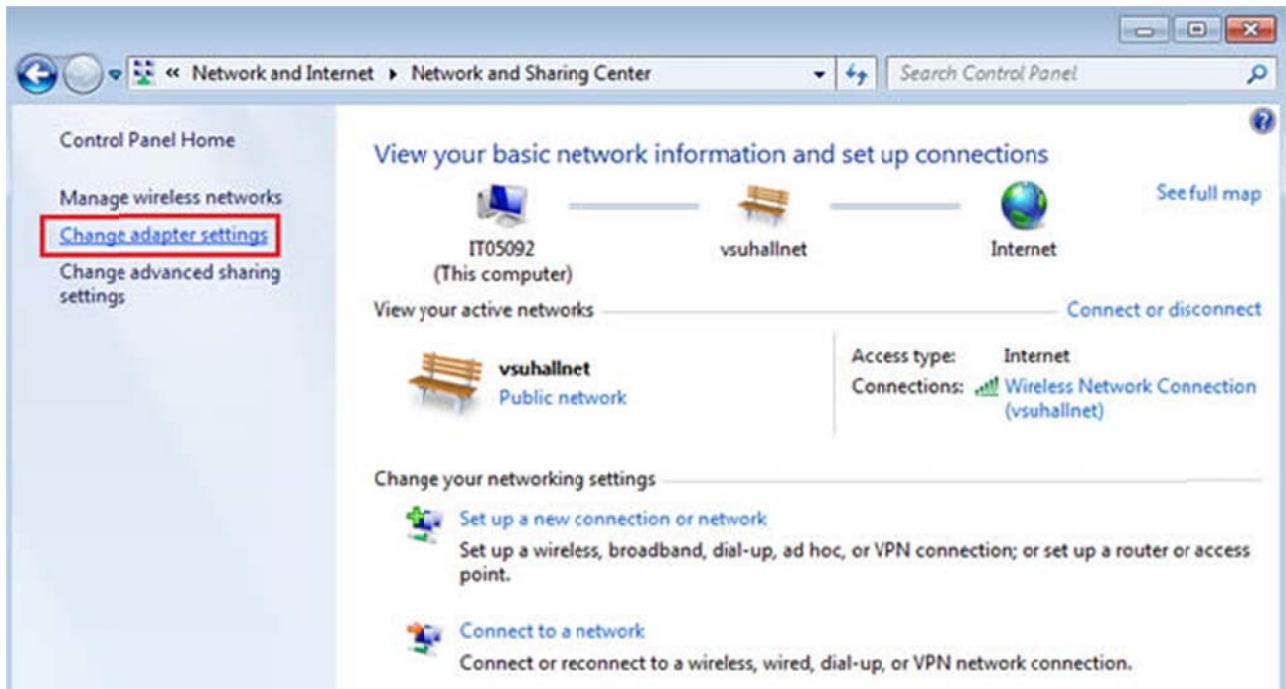
Step 5: Disabling and Enabling the Network Connection

Right-click the **Wireless Network Connection** icon. A pop-up menu should appear.
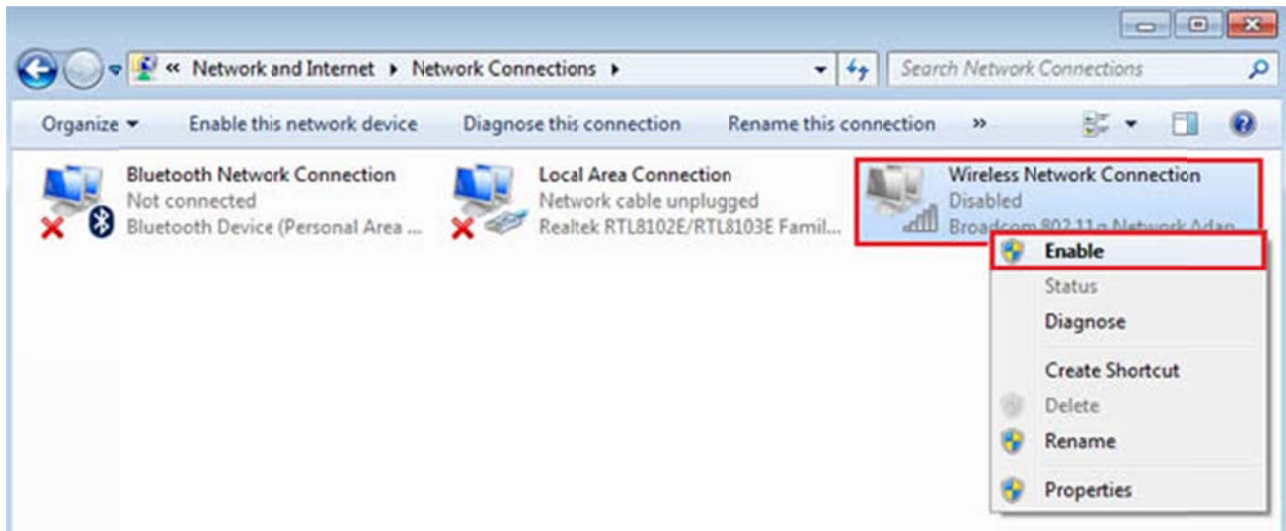
If **Enable** appears in the pop-up menu, left-click it and proceed to step 6.

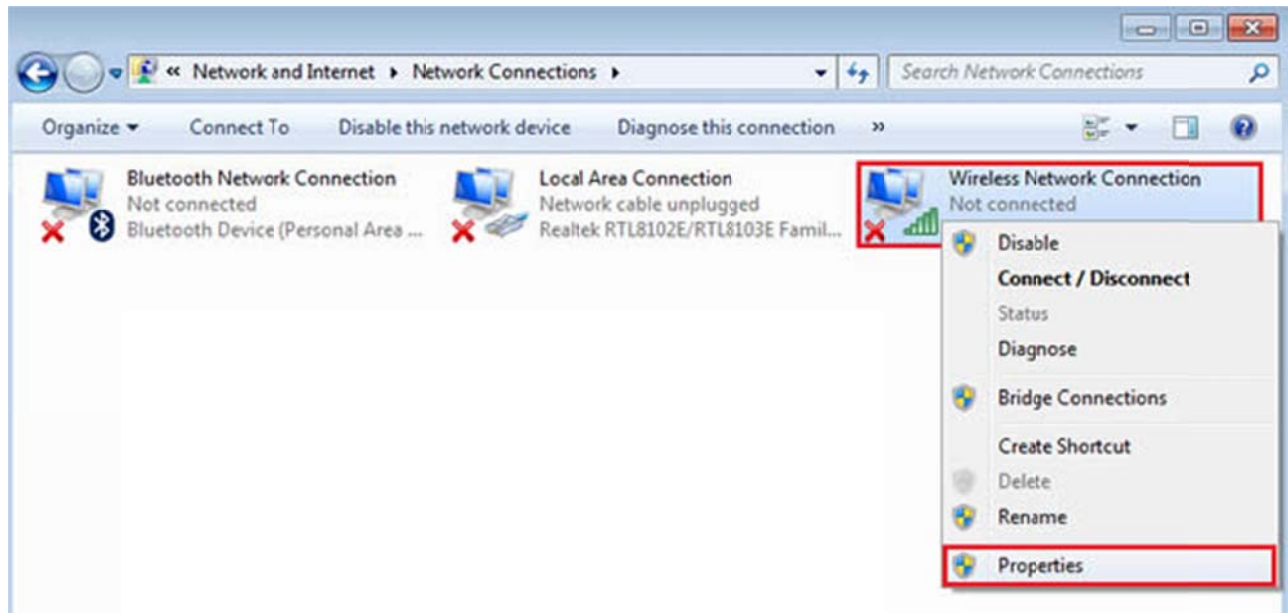Otherwise, if **Disable** appears in the pop-up menu, left-click it.

Right-click the icon again. This time, left-click **Enable** in the pop-up menu. Finally, proceed to step 6.

Step 6: Bring up the Wireless Network Properties Window

Right-click the **Wireless Network Connection** icon. A pop-up menu should appear. Left-click **Properties** in the pop-up menu.
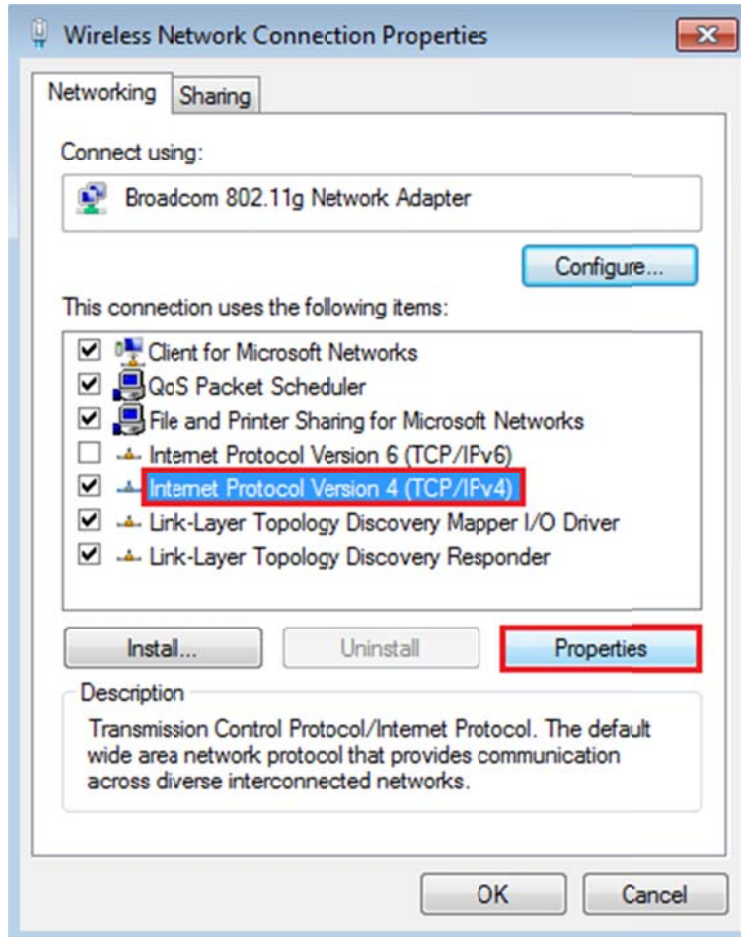
Step 7: Modifying TCP/IP Settings

A wireless network connection properties window will appear. Make sure the checkbox in front of **Internet Protocol Version 6 (TCP/IPv6)** is **unchecked**.
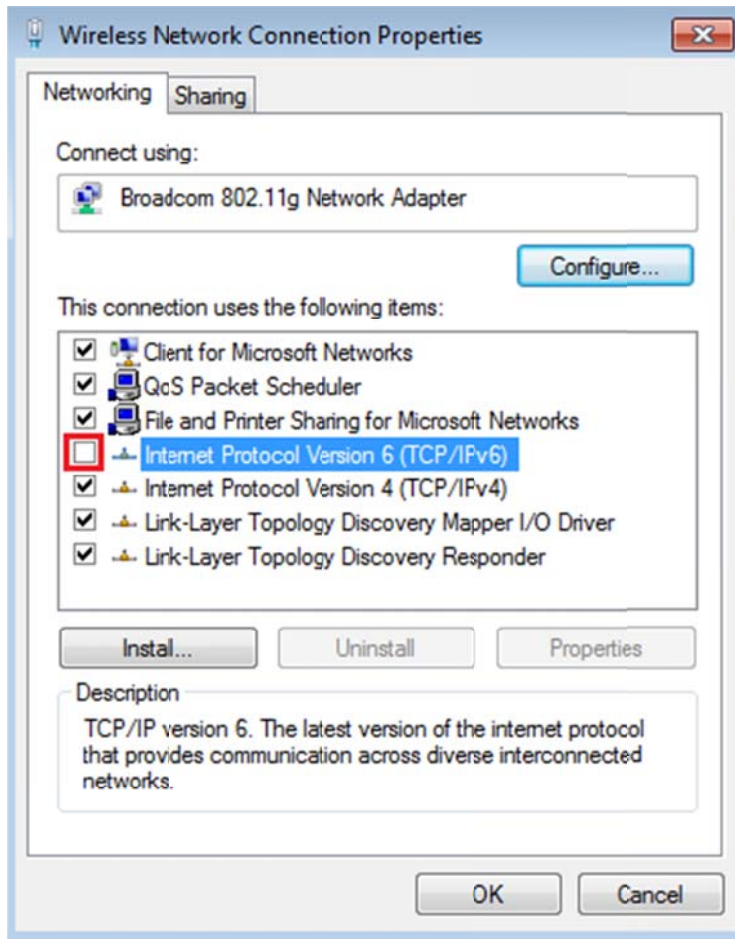
Then, click on the **text** (rather than the checkbox) for **Internet Protocol Version 4 (TCP/IPv4)**.

Finally, click the **Properties** button.

Step 8: Obtaining all Values Automatically

The Internet Protocol Version 4 (TCP/IPv4) Properties window will appear. Make sure the radio button in front of **Obtain an IP address automatically** is marked. Also, make sure that the radio button in front of **Obtain DNS server address automatically** is marked. When you click the **OK** button in the Internet Protocol Properties window, you will be returned to the connection properties window.
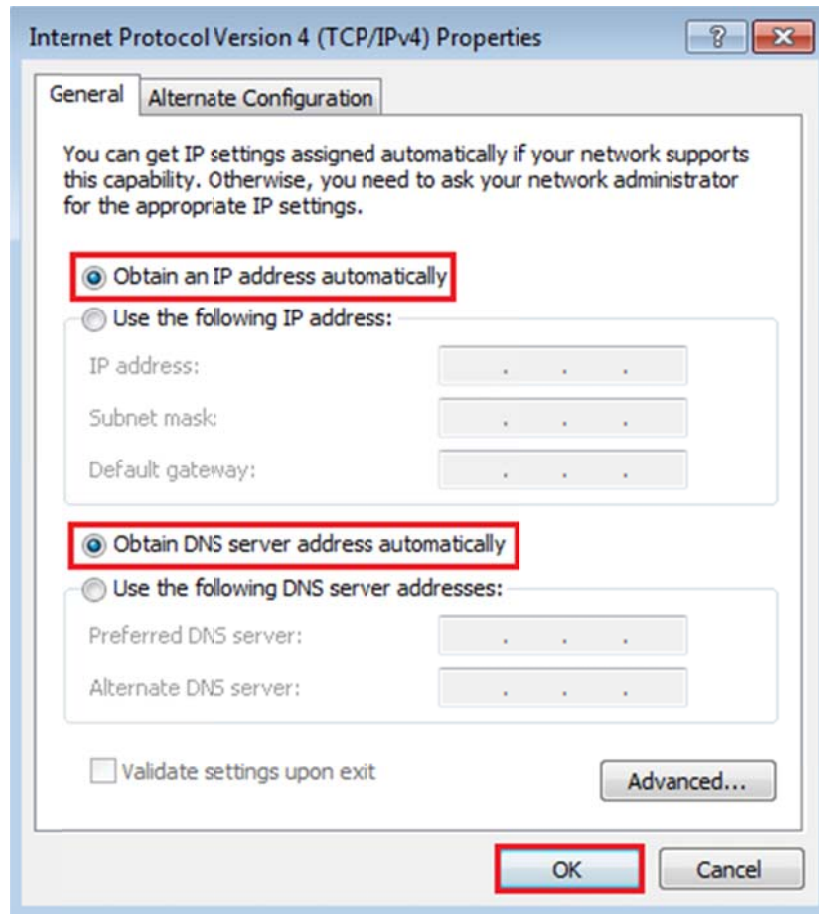
Step 9: Configuring the Wireless Driver

Click the **Configure** button. This will bring up another window with your wireless device settings.
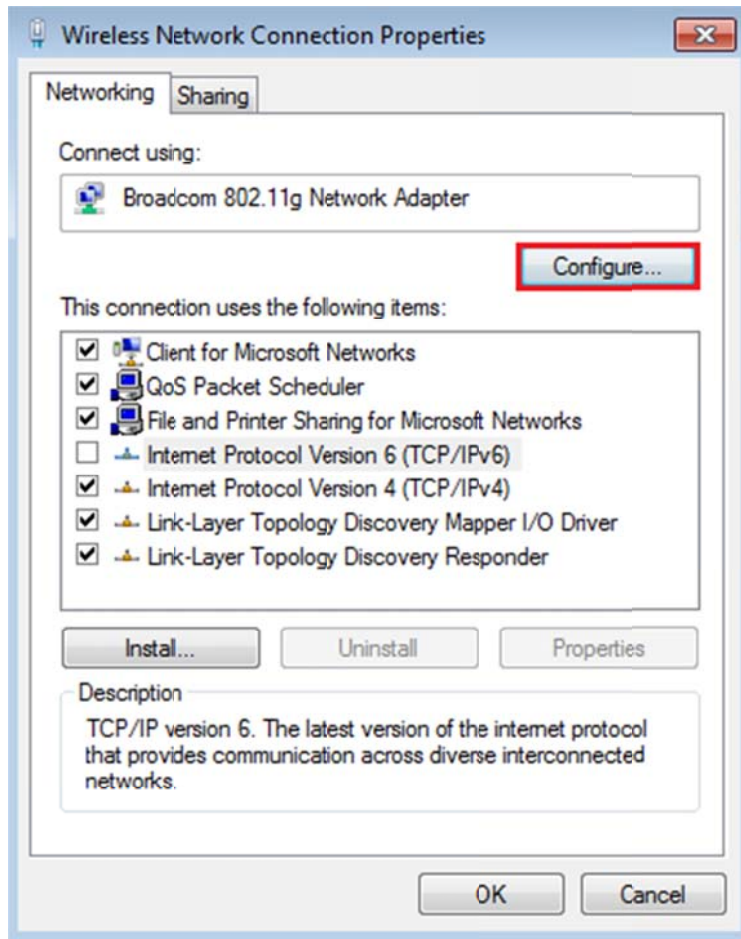
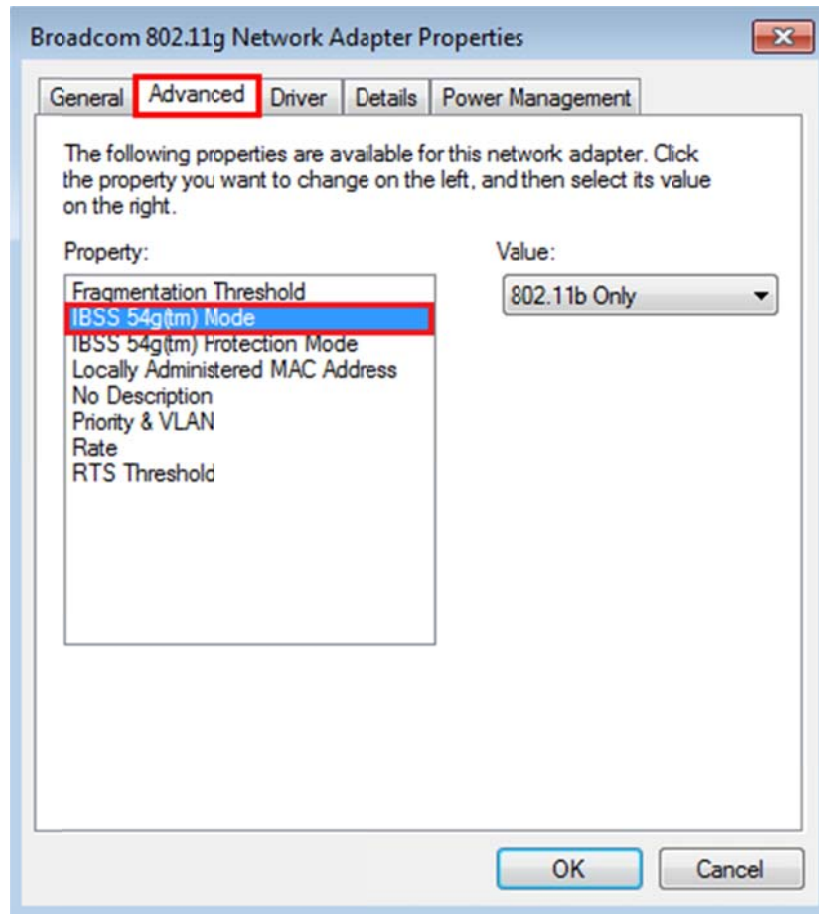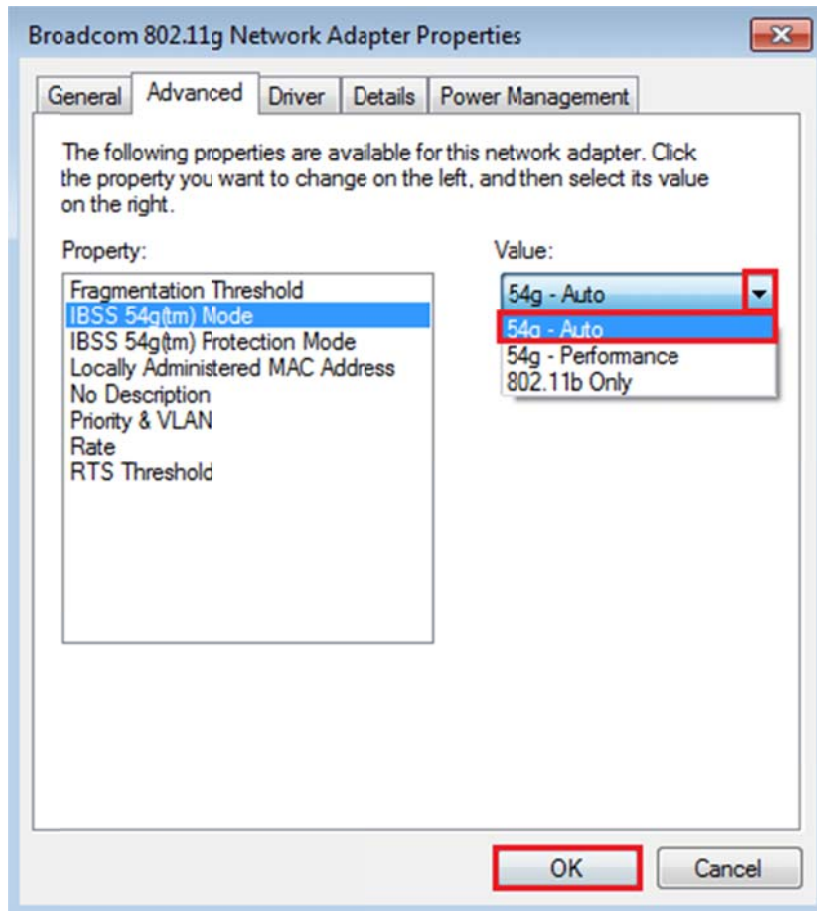## Step 10: Modifying the Connection Mode

Click the **Advanced** tab in the window that appears.

In the **Property** list, click on the entry titled **IBSS 54g(tm) Mode**.

Note: Some wireless network cards do not support this option. If you do not have a IBSS 54g(tm) entry, skip directly to step 11.

After you have clicked on this entry, select **54g - Auto** from the drop-down list on the right.

In addition, you may have another entry for **Radio On/Off**, make sure the value is set to **On**.

Step 11: Locating the Computer Management

Click **Start** button. Then, right-click **Computer**. A pop-up menu should appear. Left-click **Manage**.
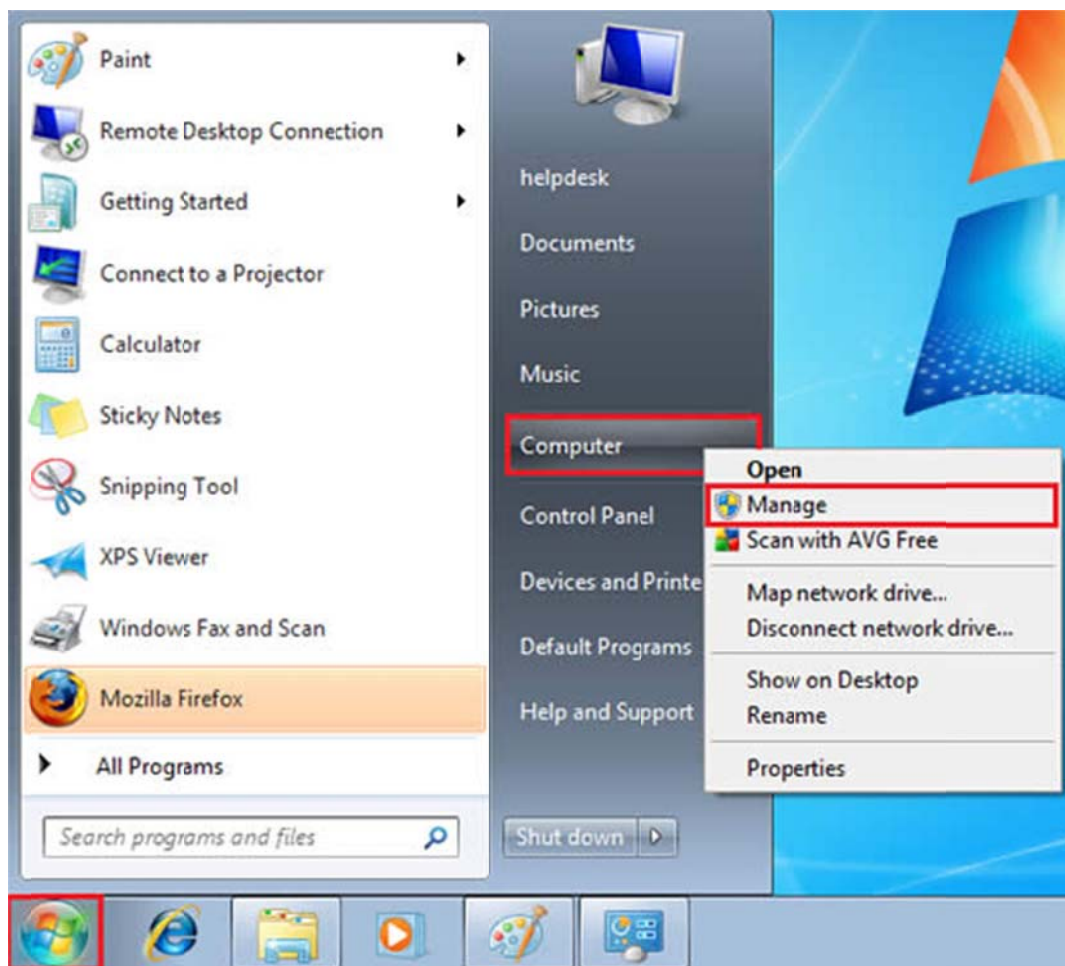
Step 12: Locating the Services Entry

The Computer Management window will open. Click on the **Services** entry at the bottom.

Note: If the Services entry does not appear, click the **drop-down arrow** next to the **Services and Applications** entry.
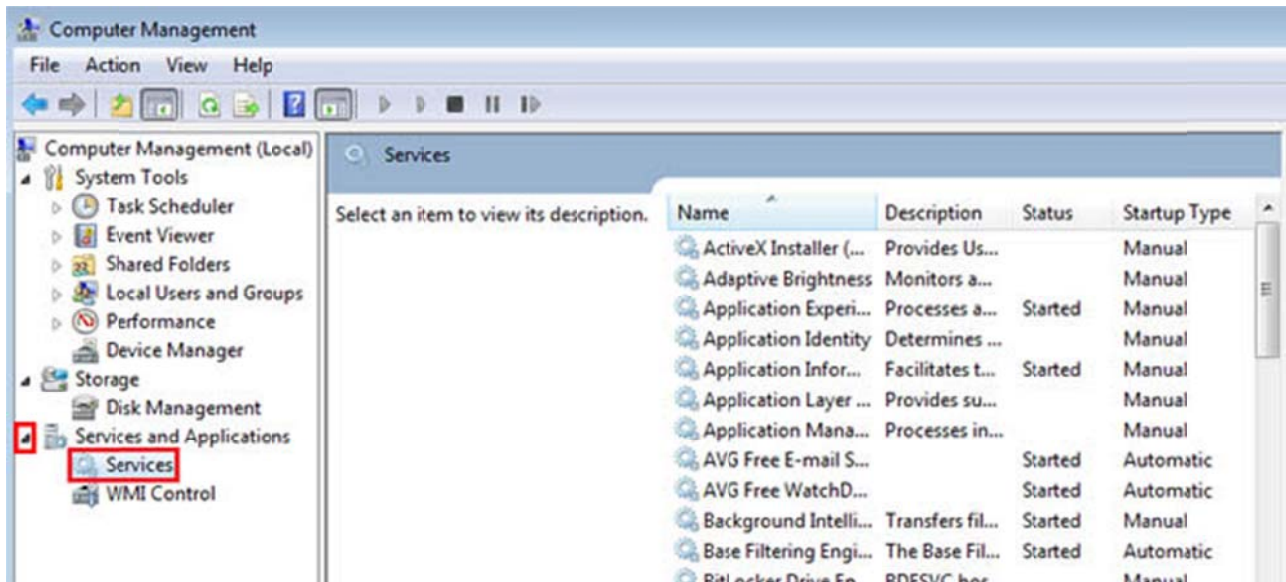
Step 13: Bringing up the WLAN AutoConfig Properties Window

In the right pane of the window, scroll down until you see **WLAN AutoConfig**. Double-click on it.

Step 14: Setting the Startup Type to Automatic

The WLAN AutoConfig Properties window should appear. Set the **Startup type:** field to **Automatic**. Then, click the **Apply** button. If the startup type is already set to automatic, skip these steps and proceed to step 16.
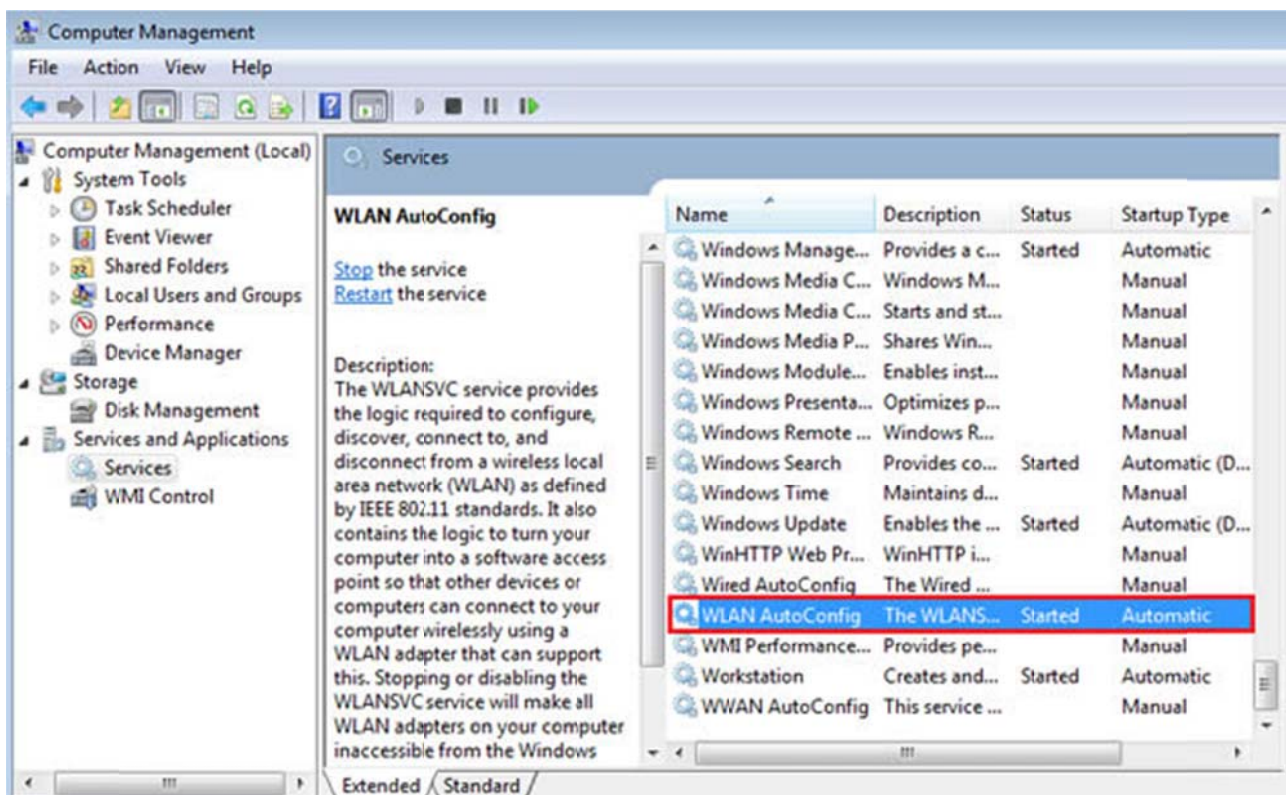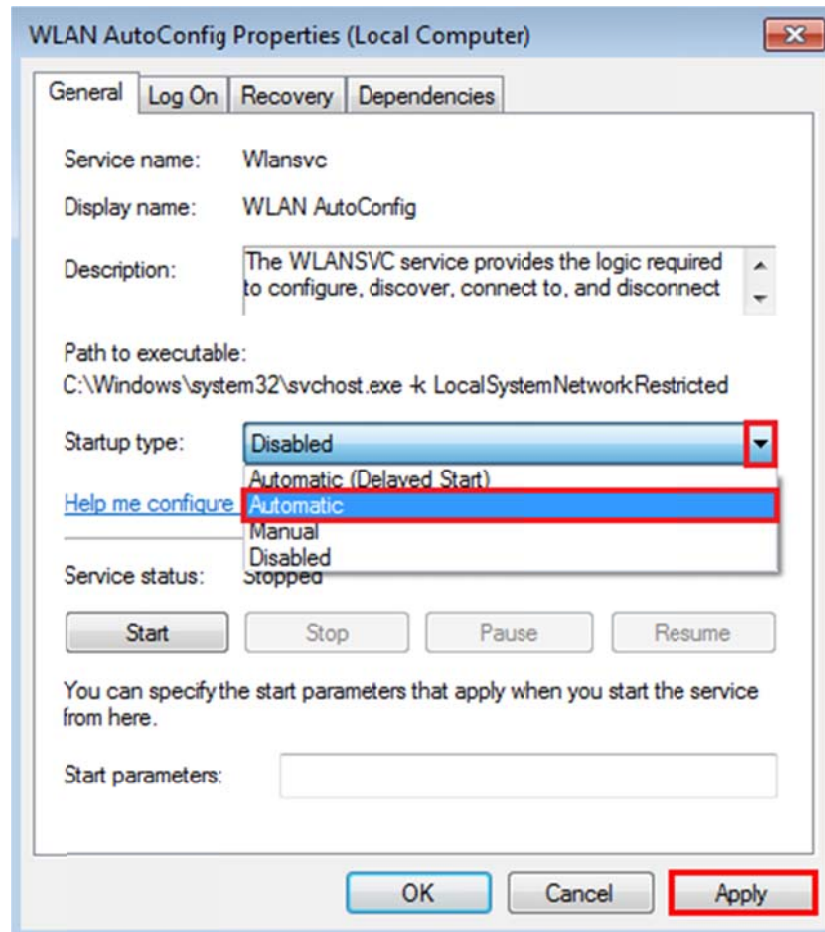

Step 15: Starting WLAN AutoConfig

Click the **Start** button. Then, click **OK**. This should return you to the Computer Management window. Close the Computer Management window by clicking the **X** button in the top right corner.
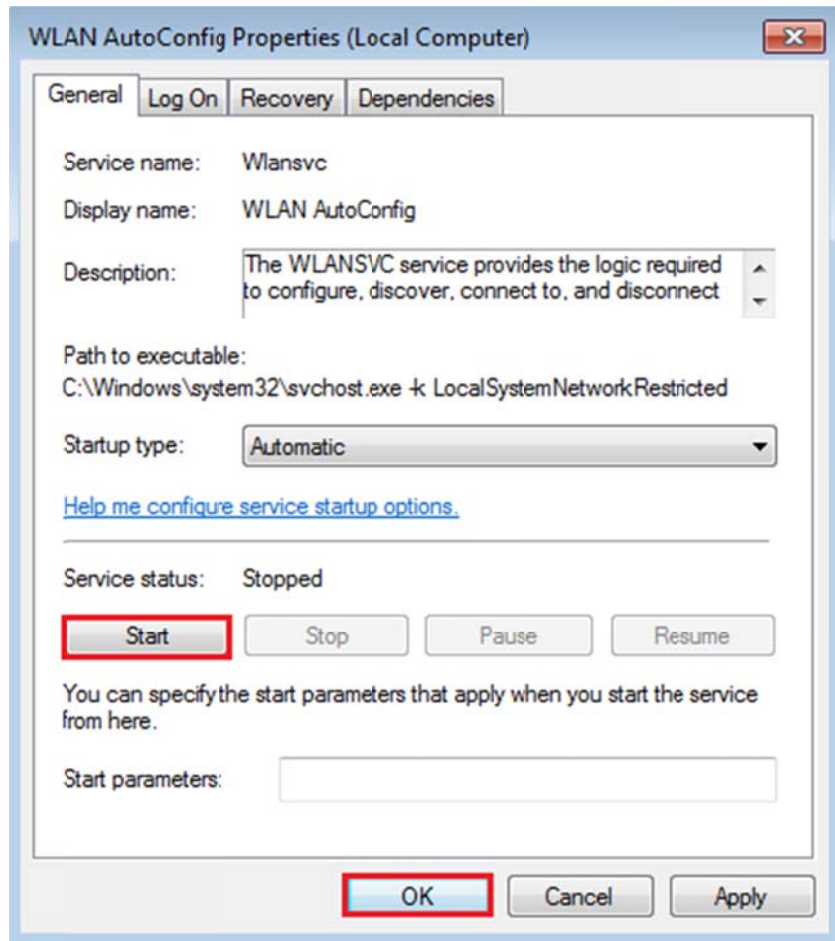
Step 16: Bringing up the Wireless Network Properties

Double-click the wireless icon in your task tray at the bottom right hand corner of your screen. Then click the **Open Network and Sharing Center** link in the pop-up window that appears.

Then, click the **Manage wireless networks** link on the left sidebar of the window that appears.
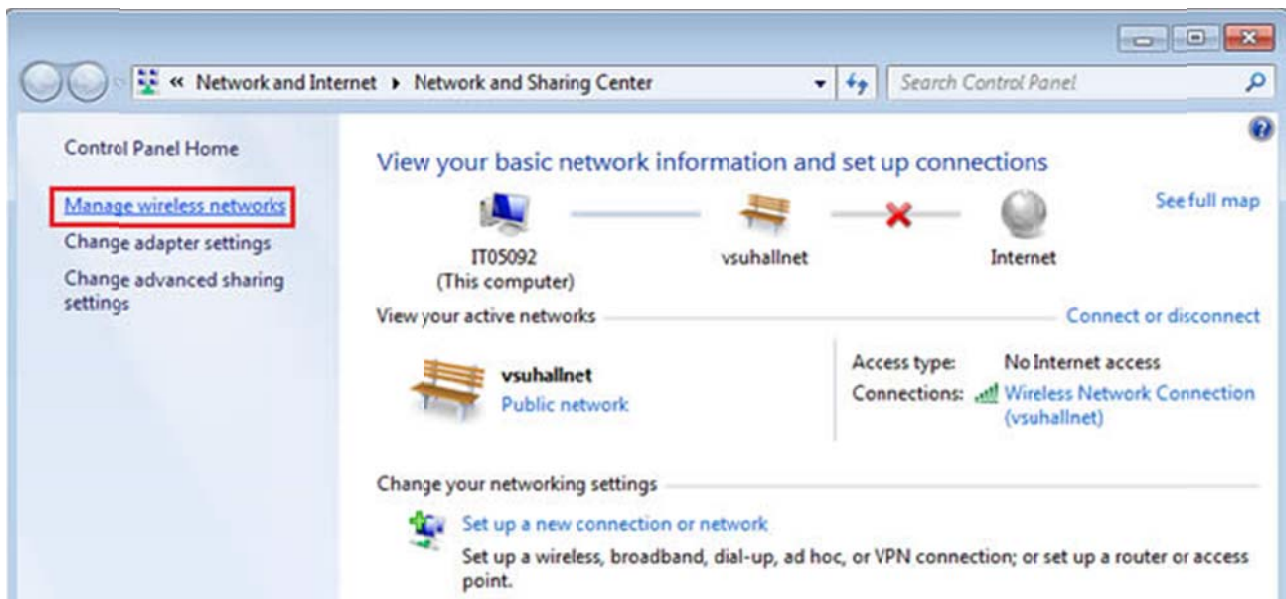
Step 17: Removing Other Networks

In order to prevent settings from other networks causing conflicts with your connection to Hallnet, we strongly recommend removing all other networks from the list that appears. In order to do so, click on the **name of the network**. Then, click the **Remove** button. Repeat this process for all networks that appear in this list.

Step 18: Connecting to vsuhallnet

Double-click the wireless icon in your task tray at the bottom right hand corner of your screen. Then, click **vsuhallnet** in the window that appears.

Note: Valdosta State University's wireless network is named **vsuhallnet** with all lower-case letters and no spaces or symbols. Other networks are not owned or run by Valdosta State Univeristy. **You DO NOT want to connect to them.**
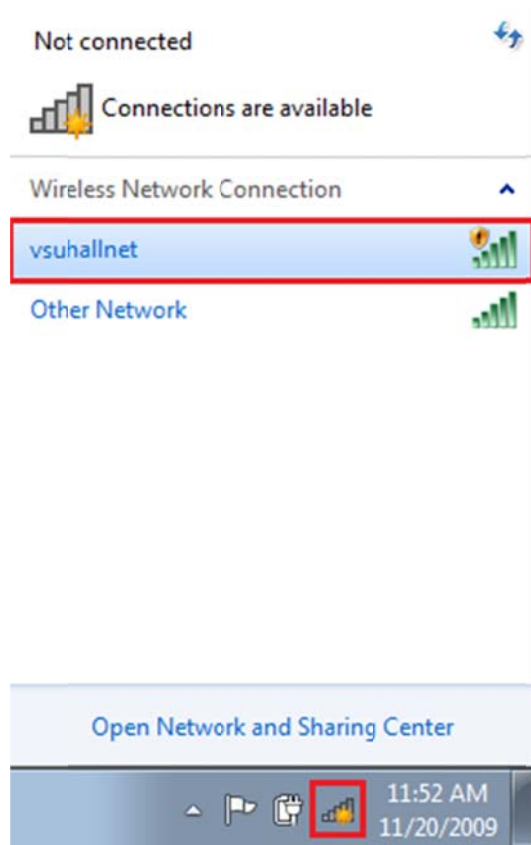
Then, click the **Connect** button that appears.

You will be prompted to choose the type of network you are connecting to. Select **Public network**.
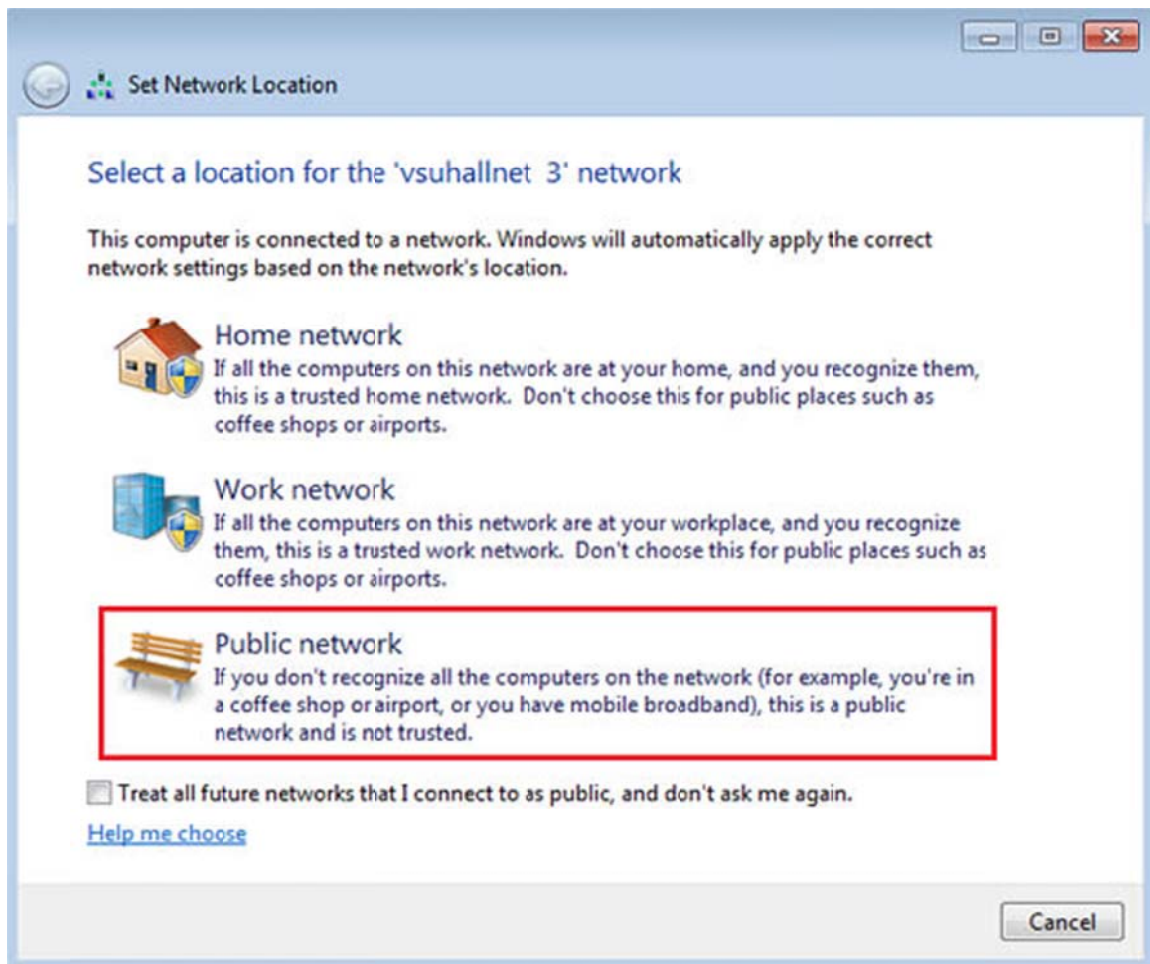
Finally, click the **Close** button.
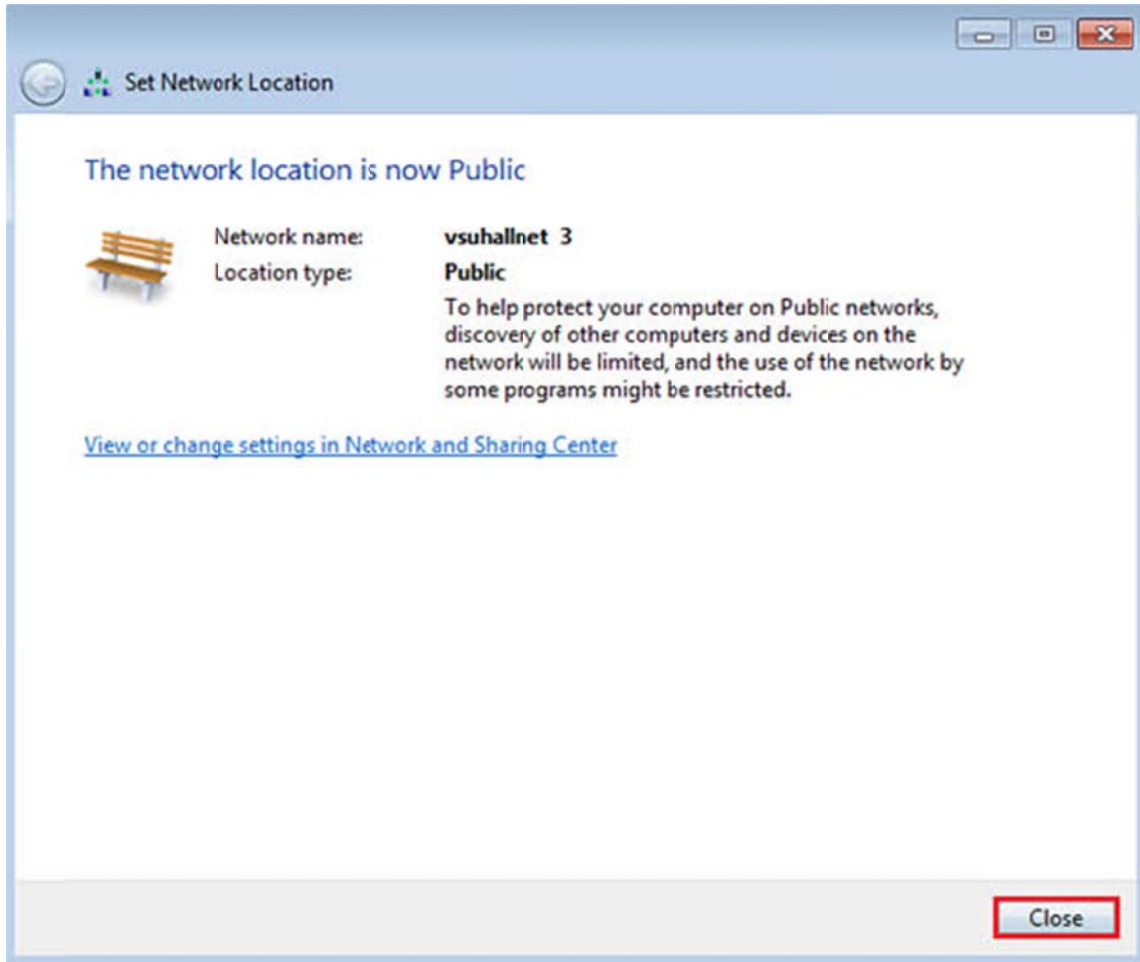
At this point, **attempt to access the internet**. You should be **redirected to the Hallnet login website**. If not, proceed to the next step.

Step 19: Bringing up the Command Prompt

Click the Start button.

Then, click **All Programs**.
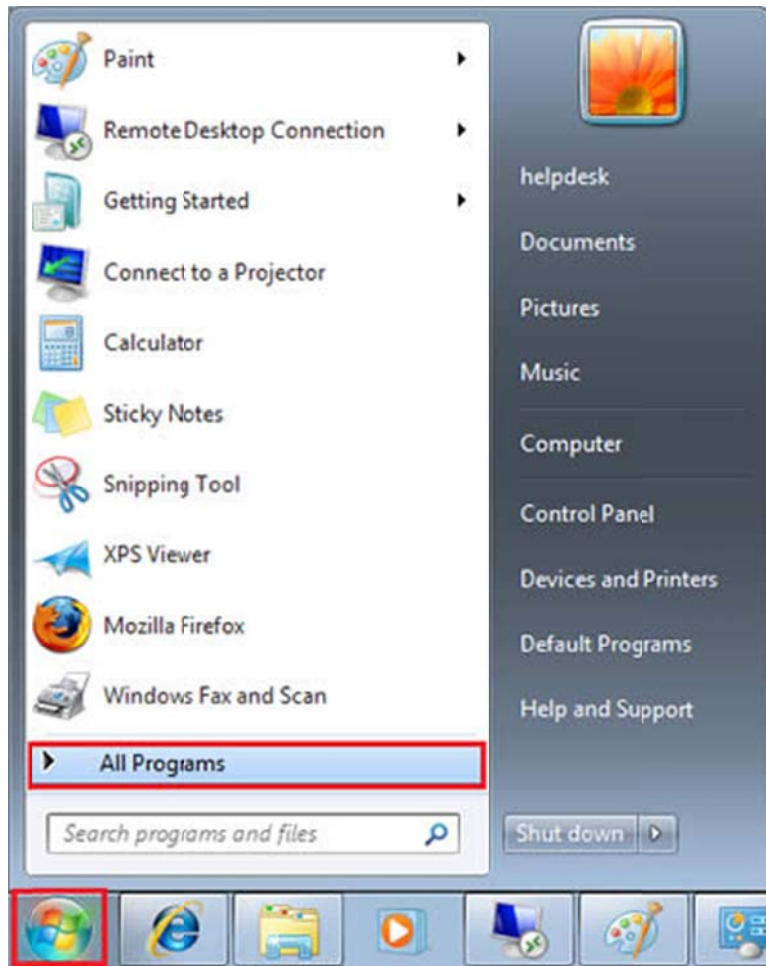
Next, click **Accessories**.
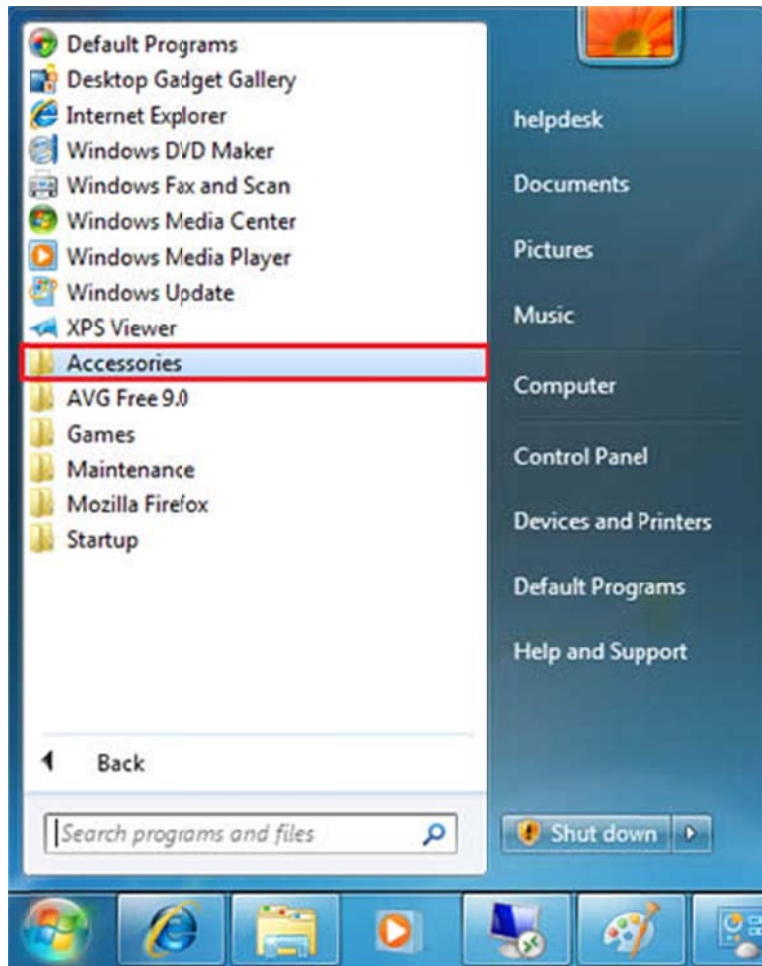
Finally, right-click **Command Prompt** and left-click **Run as administrator** in the pop-up menu that appears.
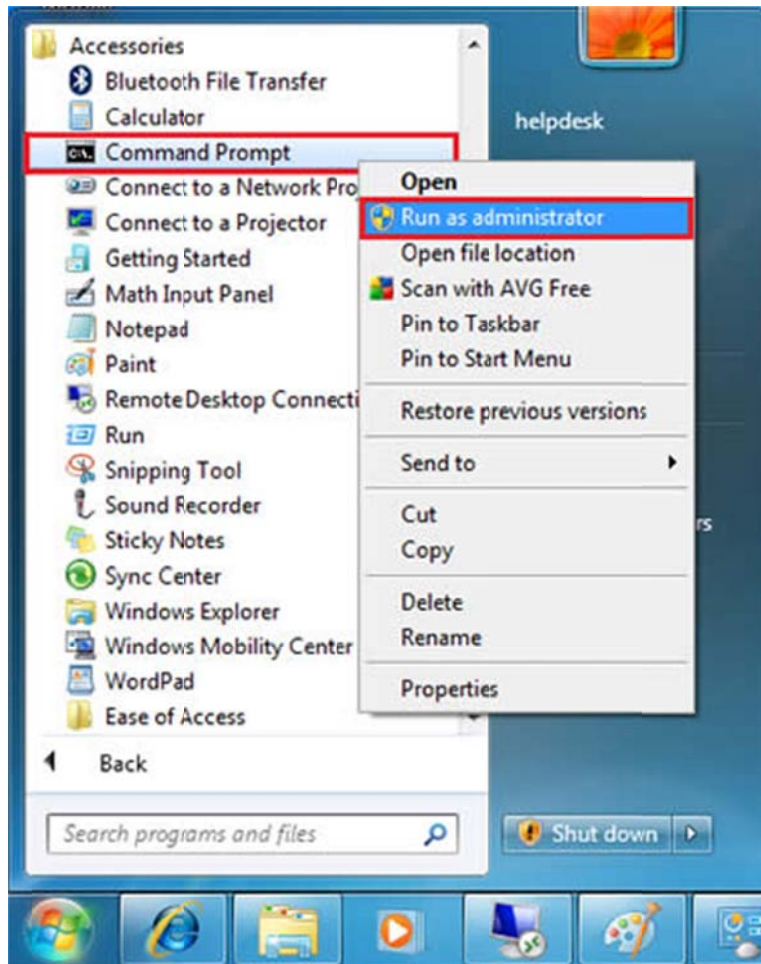
Step 20: Checking the IPv4 Address

A Command Prompt window will appear. Type **ipconfig** and press the **Enter** key on the keyboard. Look at the section for the Wireless Network Connection.

The **IP Address** listed should be between the ranges of **168.18.177.1 – 168.18.183.254**.

The **Subnet Mask** should be: **255.255.248.0**

The **Gateway**should be: **168.18.176.3**

If the IPv4 Address is correct, try to access the internet. Your web browser should redirect you to the Hallnet login website. If it does not or you do not get a correct IPv4 Address, continue these steps.

```
C:\WINDOWS\system32\cmd.exe                                    _ □ ×

Windows IP Configuration

Ethernet adapter Bluetooth Network Connection:

        Media State . . . . . . . . . . . : Media disconnected

Ethernet adapter Local Area Connection 4:

        Connection-specific DNS Suffix  . : valdosta.edu
        IP Address. . . . . . . . . . . . : 168.18.162.139
        Subnet Mask . . . . . . . . . . . : 255.255.252.0
        Default Gateway . . . . . . . . . : 168.18.160.1

Ethernet adapter Wireless Network Connection 3:

        Connection-specific DNS Suffix  . : valdosta.edu
        IP Address. . . . . . . . . . . . : 168.18.182.153
        Subnet Mask . . . . . . . . . . . : 255.255.248.0
        Default Gateway . . . . . . . . . : 168.18.176.3
```

Step 21: Releasing the IPv4 Address

Type **ipconfig/release** and press the **Enter** key on the keyboard.

If this step is performed correctly, you will no longer have an **IPv4 Address** listed under the Wireless Network Connection section.

```
C:\Windows\system32>ipconfig/release

Windows IP Configuration

No operation can be performed on Bluetooth Network Connection while it has its m
edia disconnected.
No operation can be performed on Local Area Connection while it has its media di
sconnected.

Ethernet adapter Bluetooth Network Connection:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Wireless Network Connection:

   Connection-specific DNS Suffix  . :
   Link-local IPv6 Address . . . . . : fe80::79b4:baf0:c3ba:36e9%12
   Default Gateway . . . . . . . . . : fe80::25e8:45a3:5073:7229%12
                                       fe80::9477:eac6:9083:fdee%12
                                       fe80::ecc3:cacc:6fbd:4af3%12
                                       fe80::9930:43c3:7bb8:16cf%12
                                       fe80::e0f0:5926:fb04:772e%12
                                       fe80::1104:d566:66d:f618%12
                                       fe80::e83a:ff3f:23cb:994e%12

Ethernet adapter Local Area Connection:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . : valdosta.edu

Tunnel adapter isatap.<181F37FA-B122-461A-B771-F7F6962BB8A9>:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Tunnel adapter isatap.valdosta.edu:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Tunnel adapter Teredo Tunneling Pseudo-Interface:

   Connection-specific DNS Suffix  . :
   IPv6 Address. . . . . . . . . . . : 2001:0:4137:9e50:20b7:3ce4:f5ff:f11e
   Link-local IPv6 Address . . . . . : fe80::20b7:3ce4:f5ff:f11e%15
   Default Gateway . . . . . . . . . : ::
```

Step 22: Renew the IPv4 Address

Type **ipconfig/renew** and press the **Enter** key on the keyboard. The IPv4 Address listed there should begin with **10.0**. If the IP Address is correct, try to access the internet. Your web browser should redirect you to the Hallnet login website.

If your browser does not redirect you appropriately, please download and install Mozilla Firefox which is available on our <u>downloads</u> page. When you launch Firefox, it should automatically redirect you to the Hallnet login website.

```
C:\Windows\system32\ipconfig/renew

Windows IP Configuration

No operation can be performed on Bluetooth Network Connection while it has its m
edia disconnected.
No operation can be performed on Local Area Connection while it has its media di
sconnected.

Ethernet adapter Bluetooth Network Connection:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Wireless Network Connection:

   Connection-specific DNS Suffix  . : valdosta.edu
   Link-local IPv6 Address . . . . . : fe80::29b4:baf0:c3ba:36e9%12
   IPv4 Address. . . . . . . . . . . : 10.0.14.225
   Subnet Mask . . . . . . . . . . . : 255.255.128.0
   Default Gateway . . . . . . . . . : fe80::25e8:45a3:5073:7229%12
                                       fe80::9477:eac6:9083:fdee%12
                                       fe80::ecc3:cacc:6fbd:4af3%12
                                       fe80::9930:43c3:7bb8:16cf%12
                                       fe80::e0f0:5926:fb04:772e%12
                                       fe80::1104:d566:66d:f618%12
                                       fe80::e83a:ff3f:23cb:994e%12
                                       10.0.0.1

Ethernet adapter Local Area Connection:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . : valdosta.edu

Tunnel adapter isatap.{181F37FA-B122-461A-B771-F7F6962BB8A9}:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Tunnel adapter isatap.valdosta.edu:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :
```

If you have problems when trying these instructions, or if you have other question concerning the wireless network, please contact the Information Technology Helpdesk at 229-245-4357 or send an e-mail to helpdesk@valdosta.edu.