

WINDOWS 7 CONNECTION UTILITY

History

With the advent of Windows 7, the Windows Operating System will no longer auto-connect to an ad hoc network. This has been a concern because the operator is required to manually connect to the “wvsm” network and if for any reason that network is dropped, the operator is required to reconnect to the “wvsm” ad hoc network to view vitals remotely. In order to automate this function the following script was developed to return the auto-connect feature to the remote PC viewing software. These instructions are very specific and case sensitive. Every care should be taken to follow them exactly as written. With changes and updates in Windows these instructions are subject to change at any time. If you have any difficulties in getting these to perform as required please contact us immediately and we will work together to resolve any issue that you find.

To set up Windows 7 to connect automatically to the WVSM ad hoc network you need to have the following available to set up and verify the network:

WVSM Wireless Vital Signs Monitor (at least 1).

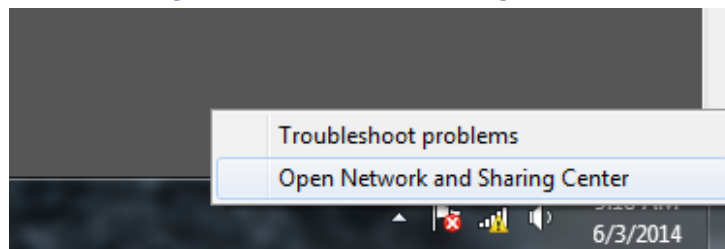
A Personal Computer running Windows 7 Professional with a 802.11b/g Wi-Fi network adapter and the “WVSM Management Suite” already installed on it.

Note: The WVSM Management Suite is capable of connecting to a maximum of 20 WVSMs at the same time but not all wireless adapters are capable of supporting 20 WVSMs simultaneously. Most Wi-Fi adapters are capable of simultaneously connecting to 20 devices but a few are only capable of supporting from 10 to 15 devices at once. If you desire to connect to more than one device at a time you need to verify that your wireless adapter is capable of attaching to the total number of devices you want to connect to (maximum of 20).

Pre-Installation

1. Install the .NET and WVSM Management Suite Software.
2. Right click on the wireless network icon and select “Open Network and Sharing Center”.

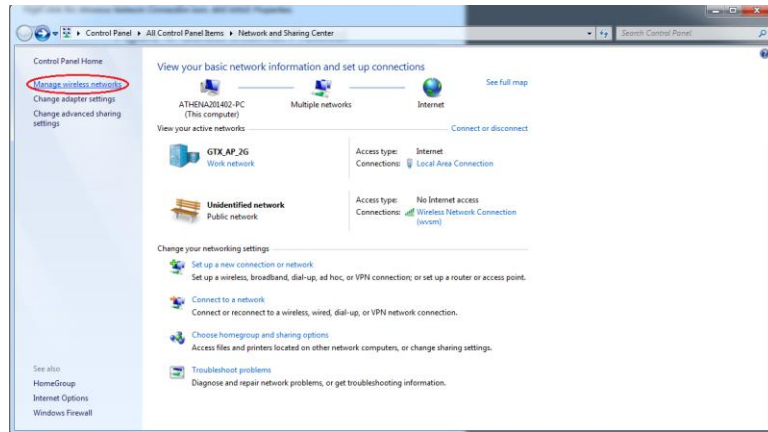
Figure 1. Network and Sharing Center



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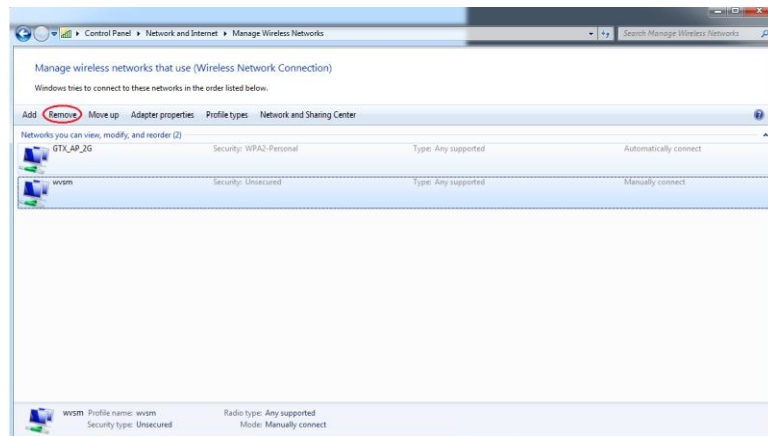
3. Open Manage Wireless Networks page.

Figure 2. Manage Wireless Networks



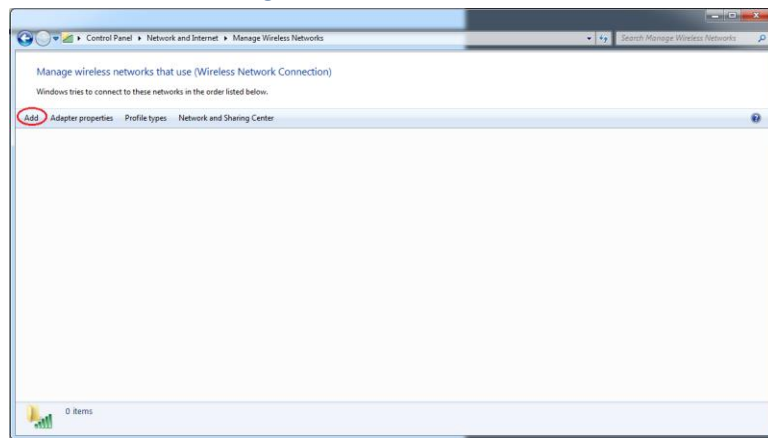
4. Highlight any existing network(s) and tell Windows to "Remove" them.

Figure 3. Remove Existing Profiles



5. When all existing profiles have been removed click on "Add".

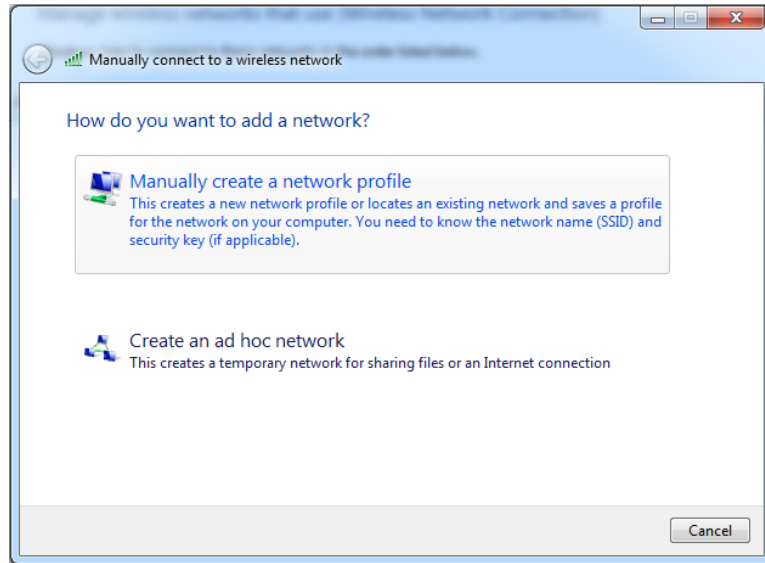
Figure 4. Add New Profile



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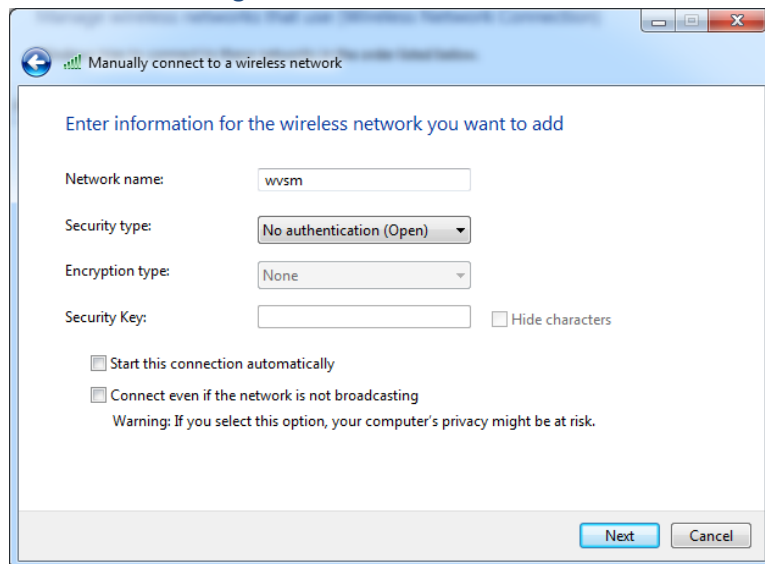
6. In the window that pops up click on “Manually create a network profile”. (DO NOT click on “Create an ad hoc network”).

Figure 5. Manually Create a Network Profile



7. In the new window enter the Network name (SSID) for the WVSM Management Suite. The default SSID is “wvsm” all lower case.
 - a. Under security type in the dropdown select “No authentication (Open)”.
 - b. Make sure encryption type is blank.
 - c. Verify that both “Start this connection automatically” and “Connect even if the network is not broadcasting” are UNCHECKED.
 - d. Click “Next” and in the popup click on the “Close” button.

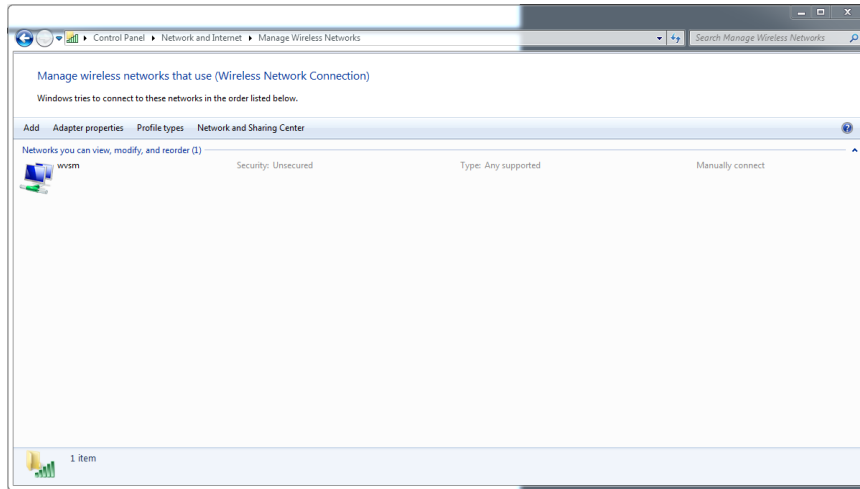
Figure 6. Network Information



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8. In the remaining window confirm that the network profile has been added. It will appear as an infrastructure icon (two big screens connected to a tube) this is ok for now.

Figure 7. WVSM Network with Infrastructure Icon

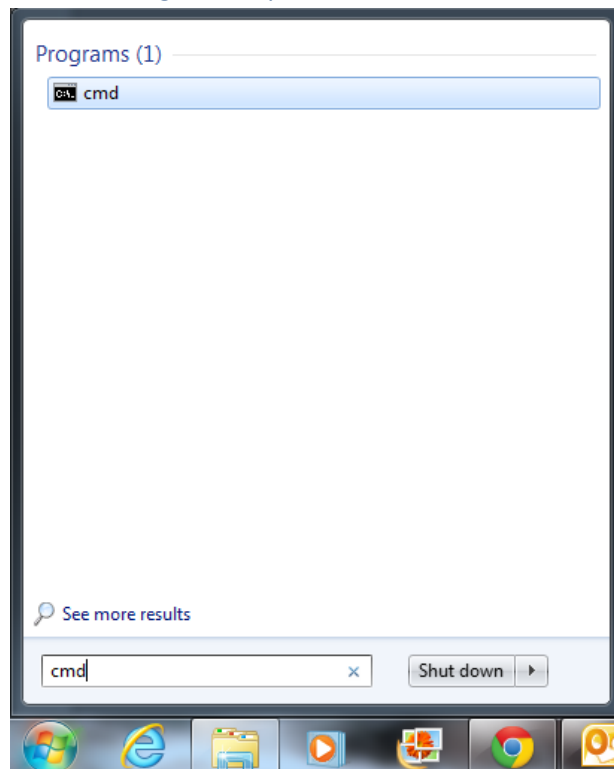


9. Close the "Manage Wireless Networks" window.

Command Line

1. Click on the start button and in the search window type "cmd" and press enter.

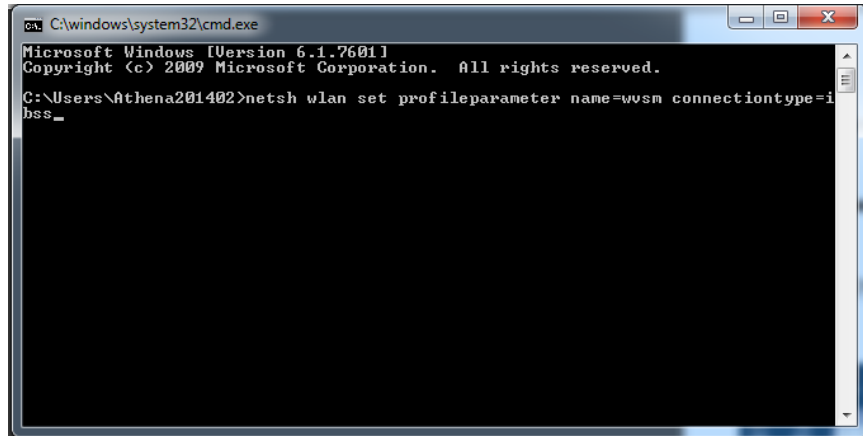
Figure 8. Open Command Line



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- a. A command line box will open and an underscore symbol will be blinking at the end of a short line of text starting with C:. Type the following exactly as shown but without the quotes “netsh wlan set profileparameter name=wvsm connectiontype=ibss” and press enter.

Figure 9. Command Line Entry

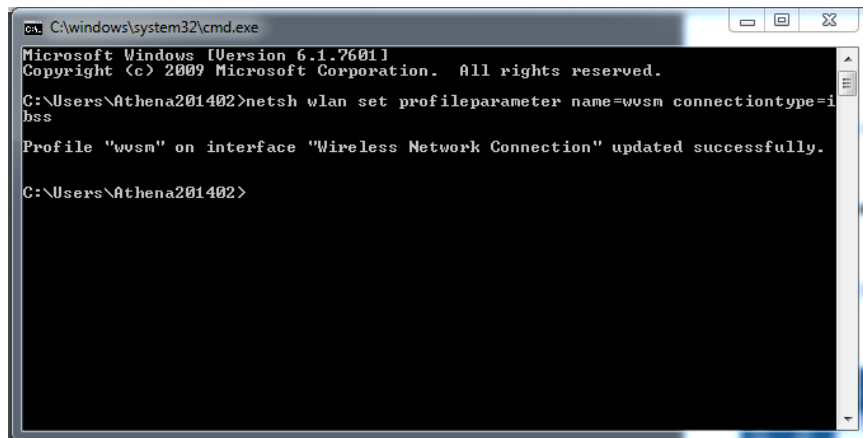


```
C:\windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Athena201402>netsh wlan set profileparameter name=wvsm connectiontype=ibss
_
```

- b. If everything went correctly the following message will appear: Profile “wvsm” on interface “wireless adapter” updated successfully. The “wireless adapter” name may change depending on the name assigned to it by Windows.

Figure 10. Success Message



```
C:\windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Athena201402>netsh wlan set profileparameter name=wvsm connectiontype=ibss

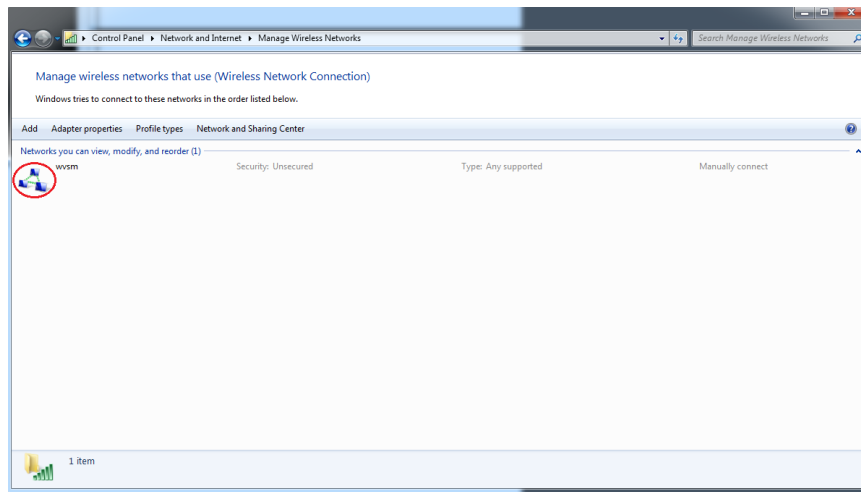
Profile "wvsm" on interface "Wireless Network Connection" updated successfully.

C:\Users\Athena201402>
```

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2. Reopen the “Manage Wireless Networks” window and verify that the icon for the wvsm profile has changed to an ad hoc symbol (three small screens connected to each other).

Figure 11. WVSM Network with ad hoc Icon

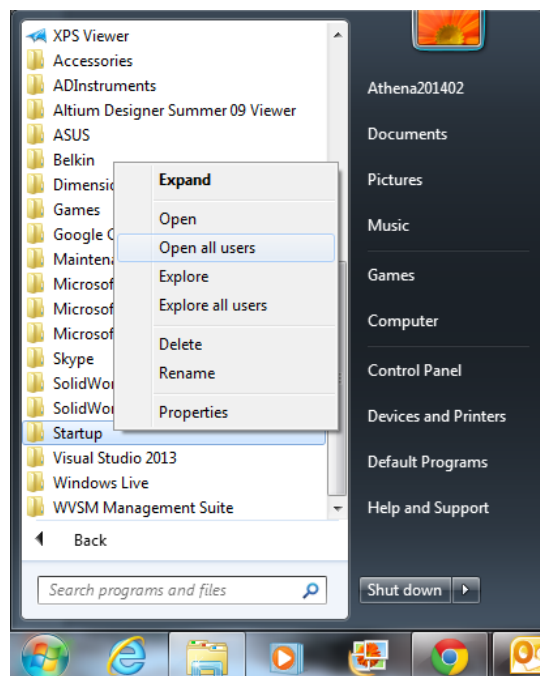


3. Close the Manage Wireless Networks window.

Startup Utility

1. Click “Start”.
 - a. Point to “All Programs”.
 - b. Right click on the “Startup” folder.
 - c. Click “Open” or “Open all users”.

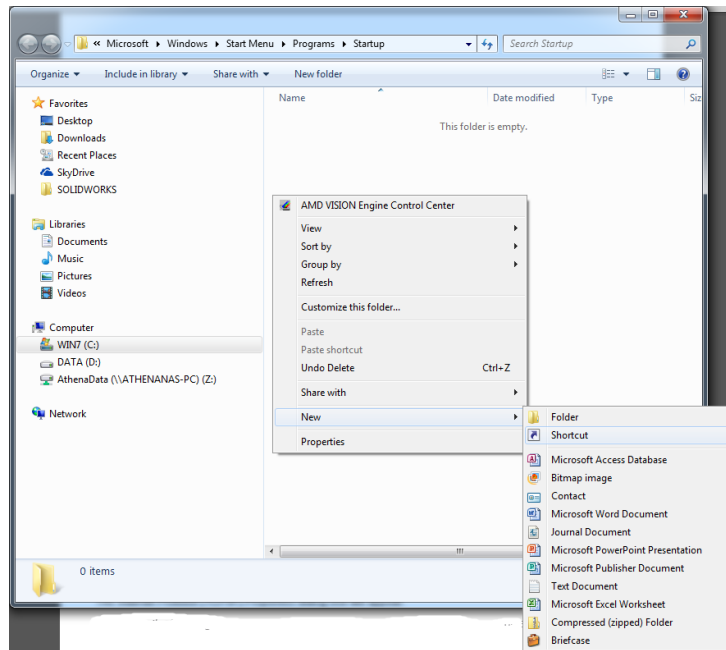
Figure 12. Open Startup Folder



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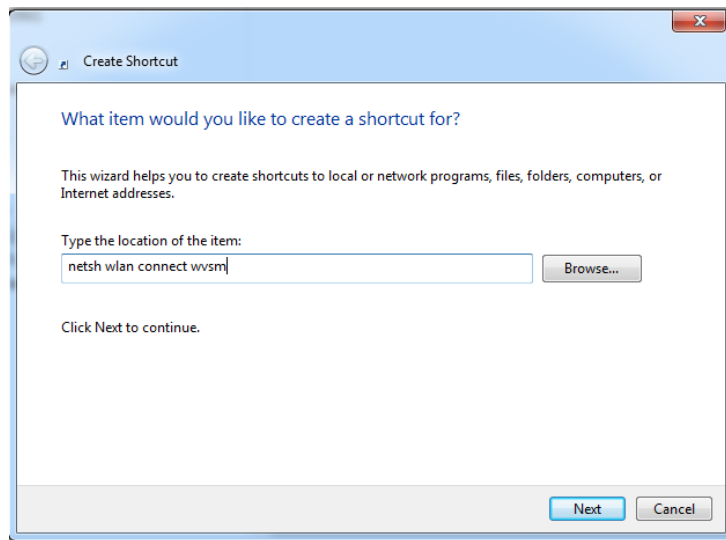
- d. Right click on the window that appears. In the dialogue box that appears select “New” then “Shortcut”. In a recent update, Windows will no longer allow you to create a shortcut in the “Startup” folder. If this is the case, create the shortcut on the desktop instead and then move it to the “Startup” folder when complete.

Figure 13. Add New Shortcut



- e. Type in the following exactly as written but without the quotes “netsh wlan connect wvsm”.

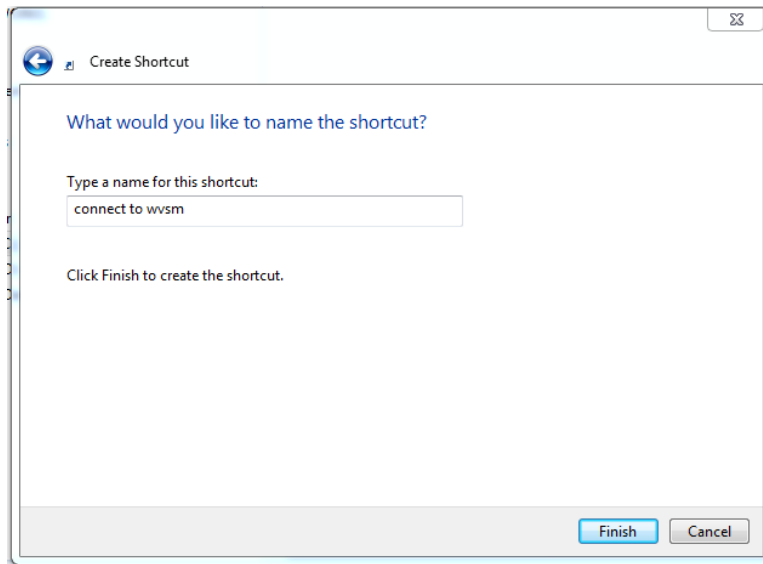
Figure 14. Shortcut Item Location



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- f. Click “Next” and enter “connect to wvsm” without the quotes.

Figure 15. Shortcut Name

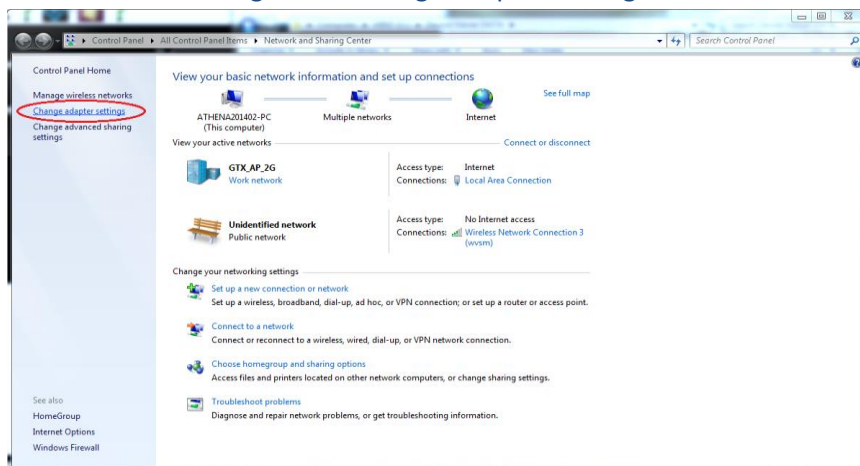


- g. Click Finish.

Adapter Settings

1. Right click on the wireless network icon and select “Open Network and Sharing Center” (See Figure 1).
2. On the left hand side, click “Change Adapter Settings”.

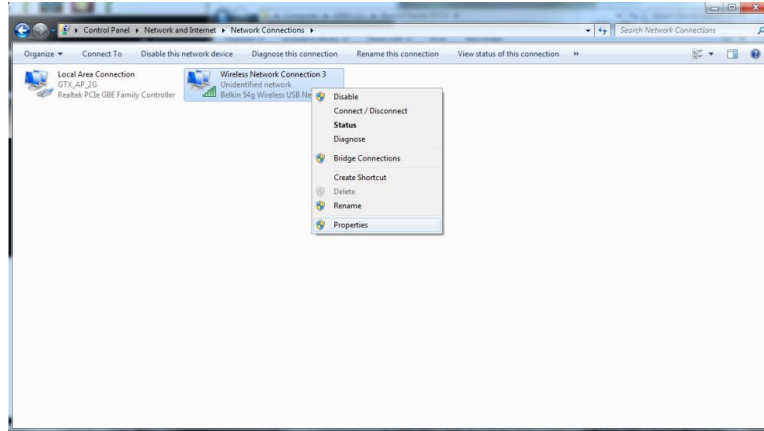
Figure 16. Change Adapter Settings



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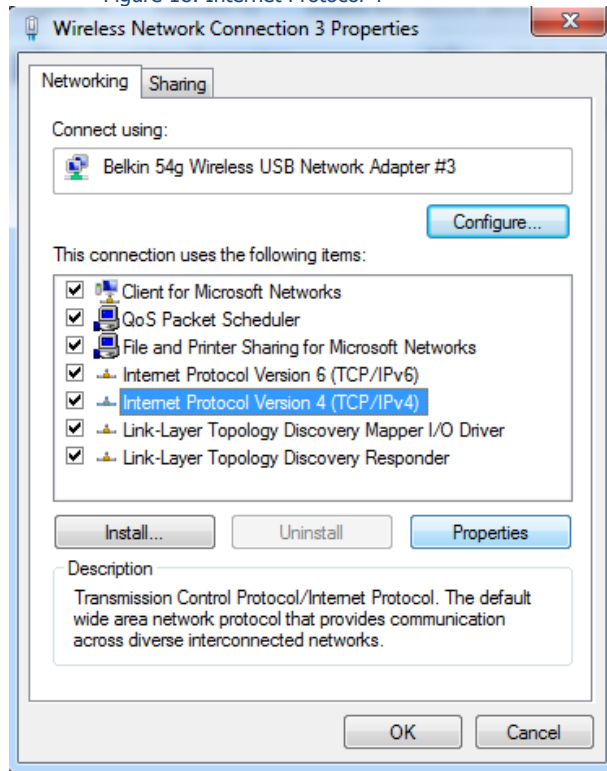
3. Right click on the “Wireless Network Connection” and select “Properties”.

Figure 17. Wireless Network Properties



- a. Click “Internet Protocol Version 4” then “Properties”.

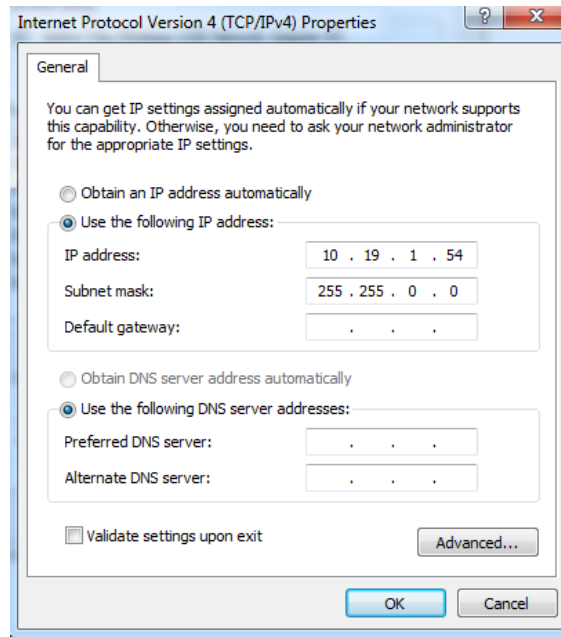
Figure 18. Internet Protocol 4



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- b. Click the button “Use the following IP address:”
- c. In the box for IP address enter: 10.19.1.XXX.
 - i. Replace XXX with a number 1-254 not already being used.
- d. In the box for Subnet mask enter: 255.255.0.0 and click “OK”.

Figure 19. IP Address and Subnet Mask



- e. Click “OK”.

4. Close Network and Sharing Center

Notes

1. The examples above use “wvsm” as the SSID for the wvsm network. If a different SSID has been chosen, all references to “wvsm” should be changed to the new SSID.
2. If you choose to, you can copy the shortcut to the taskbar or desktop so it would be easy, should it be necessary, to reconnect the network at any time.
3. A shortcut for the “WVSM Management Suite” software may be placed in the “Startup Folder” similar to the “startup utility” so that the “WVSM Management Suite” software will auto start when the system boots.

Verification

1. When all functions are complete reboot the computer.
2. With at least one WVSM turned on and the wireless broadcasting, start the “WVSM Management Suite” and verify that the WVSM automatically connects to the “WVSM Management Suite” software.
3. Turn on the remainder of the WVSMs designated for your network (Maximum of 20) and verify that they all connect to the software suite.