

CLIENT INSTRUCTIONS	General (Secure) Wireless Access – Initial Setup and Login for MCC_GENERAL
PRIMARY KNOWLEDGE AREA	Wireless Windows XP service pack 2

Purpose:

Wireless Initial Setup sets the parameters and options associated with wireless networking for a single account on your laptop (your login account). The setup enables you to make wireless connections to the Middlesex Community College (MCC) computer network. If you plan to use multiple laptops or several accounts on the same laptop, you would need to set up these parameters for each account on every laptop.

For your convenience, the login procedure has been included in this document after the initial setup procedure.

Prerequisites:

- Laptop with Windows XP (**with service pack 2**)
- Wireless card or onboard wireless - supporting 802.11a, 802.11b, or 802.11g standard
- Valid network login id (username and password)

Note: Wireless cards that are inserted into the laptop require installation of driver software on the laptop before using the card. If this is the first time you are using your wireless card, be sure the driver software has been installed before proceeding. Driver software is shipped on a CD with the card or instructions are provided for downloading it from the company's website.

Overview:

The wireless infrastructure of the college supports multiple methods or tiers of access. An MCC member can choose from *Hot Spot access* (Internet only), *General access* (Internet and general MCC services and applications access), and *Administrative access* (for MCC faculty and staff members). Each tier implements an increasingly powerful method of authentication and authorization.

General wireless access is for the Middlesex Community College (MCC) student, instructor, staff member, or other member of the MCC community whose requirements for a session include email, general MCC services, the MCC intranet, or access to the Internet. General wireless access provides secure encrypted access from the laptop to all destinations.

General access is a secure and encrypted type of wireless access, to be used when your session requirements include access to the MCC network and/or you want secure encrypted access. To obtain General access you login to your own MCC network account with your username and password.

Outline of Procedures in this Document:

These procedures instruct you on how to setup and manage wireless networking on your laptop through Microsoft Windows software. Windows is a common feature of all MCC supported laptops and is the most efficient way for MCC to provide assistance and support. You may see wireless management software from the manufacturer on your laptop, but since the software varies between manufacturers it is not the recommended method to use.

I. Wireless Initial Setup Procedure

- A. Navigating to the Wireless Network Connection Properties
- B. Setting the Wireless Network Connection Properties
- C. Adding General Access to Preferred Networks List
- D. Setting Protected EAP Properties
- E. Closing-Up and Having Changes Take Effect
- F. Connecting to a Wireless Access Point

II. Wireless Login Procedure

III. Wireless Logout Procedure

IV. Network Icon Not Present Procedure

Preparation:

1. Disconnect any network cables from laptop.
2. Startup the laptop.
3. Insert your wireless card (if you do not have onboard wireless).

Wireless Initial Setup Procedure:

Starting Point: Your Windows XP desktop window is displayed.

A. Navigating to the Wireless Network Connection Properties

1. Determine if there is a wireless network icon (monitor with two signal bars on its right side) present in the system tray portion of the bottom taskbar on your desktop window.

Hint: Click the  on the system tray to see any hidden icons. Re-click to re-hide.

Note: A red “X” appears as part of the wireless network icon when you are not connected to a network.



Figure 1 – Wireless Network Icon circled

There may also be a local area network icon present (two monitors). Either network icon can be used for this section of the procedure, as the wireless icon and the local area icon share some of the same options. Is there a network icon in the system tray?

YES → Continue to next step.

NO → Continue to *Network Icon Not Present Procedure* near the end of this document.

2. Right-click a Network icon in the system tray of your desktop window.
3. Select the *Open Network Connections* option from the dropdown menu.

The *Network Connections* window displays.

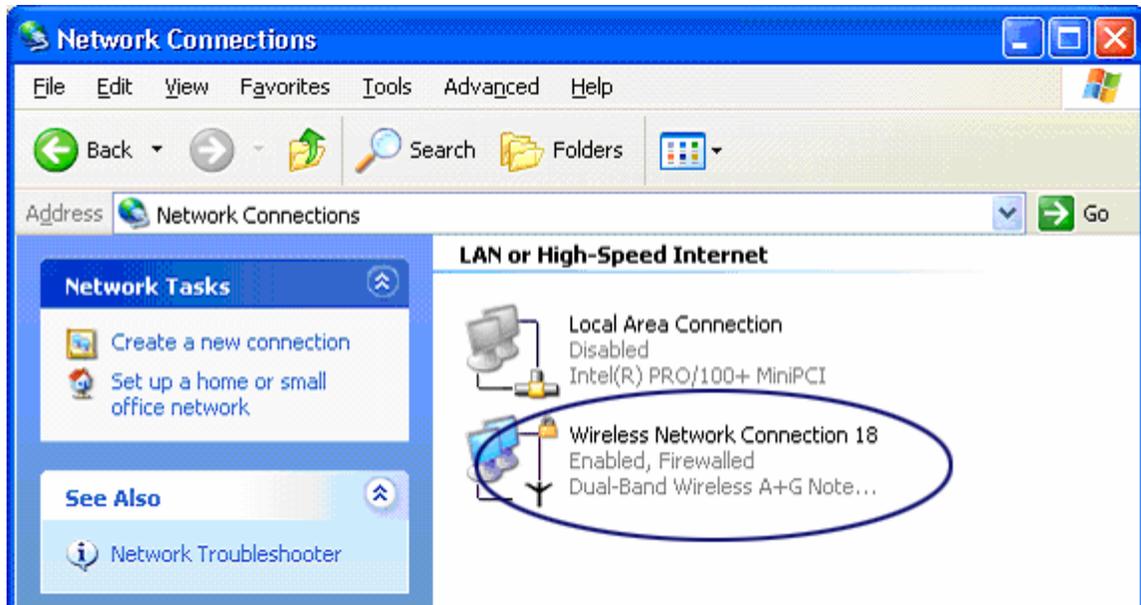


Figure 2

4. Right click the *Wireless Network Connection [number]* entry.

Note: The *[number]* referred to above also appears in some of the window titles. It is simply a counter as to how many times the wireless card has been reinstalled. This counter does not appear unless the card has been reinstalled at least once.

A dropdown menu displays.

5. Is the first item on the dropdown menu *Enable*?

YES → Click it.

NO → Continue to step 7.

A small message box displays with the message “Enabling” and then “Enabled” before automatically closing.

Note: For laptops users who have not used wireless before or for those that have previously turned wireless access off, this step ensures that wireless access is turned on or enabled before proceeding.

6. Right click the *Wireless Network Connection [number]* entry again.

The first item on the dropdown menu is *Disable*. A dropdown menu displays.

7. Click the *Properties* option on the dropdown menu.

The *Wireless Network Connection [number] Properties* window displays.

B. Setting Wireless Network Connection Properties

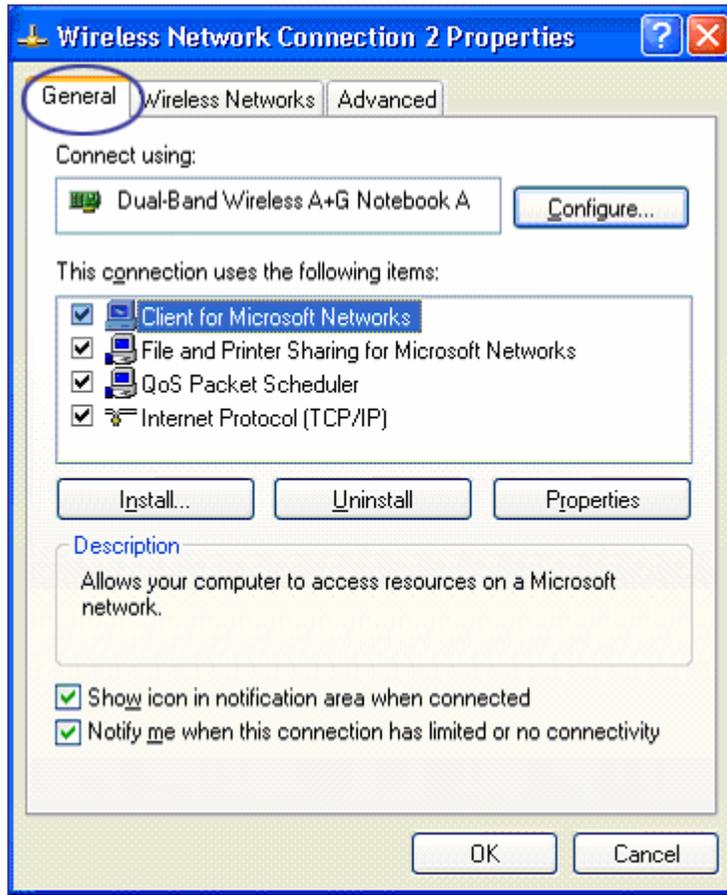


Figure 3

1. Click the *General* tab, if the *General* tab is not the default tab displayed.
2. Near the bottom, ensure these two checkboxes have a checkmark:
 - *Show icon in notification area when connected*
 - *Notify me when this connection has limited or no connectivity*

Note: Having a checkmark in the *Show icon in...* checkbox causes the Wireless Network icon to appear in the system tray of the desktop window and allows you to avoid having to use the *Network Icon Not Present Procedure* to set up wireless access.

3. All other selections should remain unchanged.
4. Click the *Wireless Networks* tab.

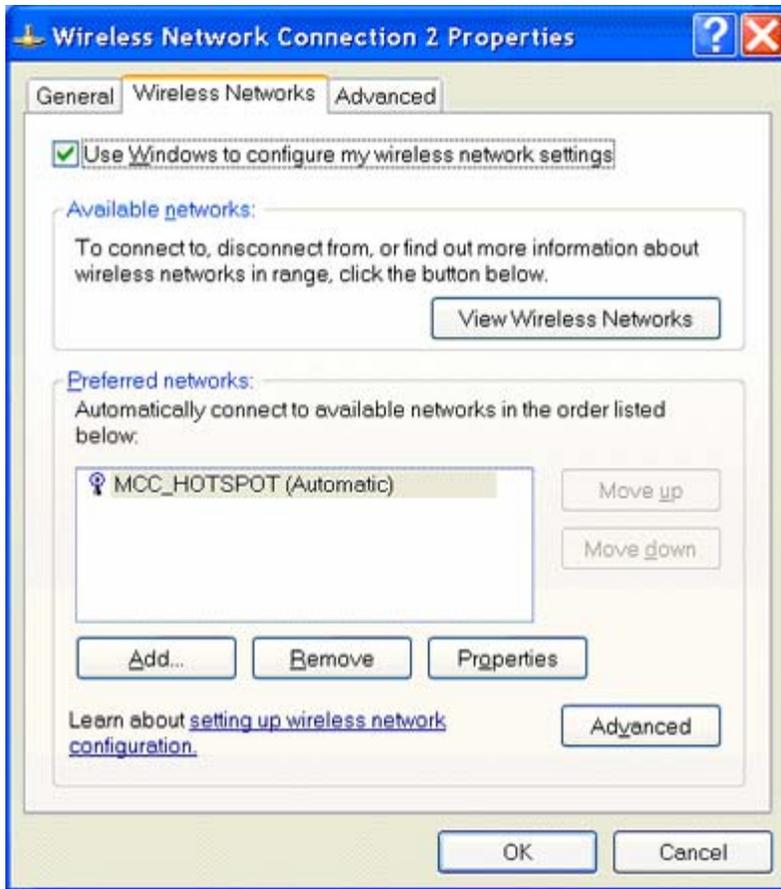


Figure 4

The bottom half of this tab shows a list of your currently *Preferred networks* and there is a button to *View Wireless Networks* currently available above that.

MCC_HOTSPOT is the identifier for Hot Spot access to the college's network. *MCC_HOTSPOT* would appear in the preferred networks list if you have already used the Hot Spot wireless access.

5. Ensure the checkbox *Use Windows to configure my wireless network settings* has a checkmark.
6. Click the *Advanced* button near the bottom of the tab (not the Advanced tab).
An *Advanced* popup window displays.

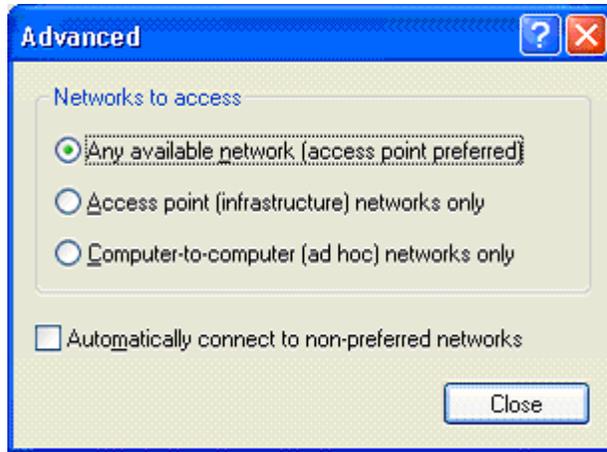


Figure 5

7. Ensure the radio button *Any available network (access point preferred)* is the only option selected or checked.
8. Click *Close*.

C. Adding General Access to Preferred Networks List

1. On the *Wireless Networks* tab, if "MCC_HOTSPOT" appears in the list of *Preferred networks*, click MCC_HOTSPOT to highlight it and click the *Remove* button.

MCC_HOTSPOT was on the Preferred networks list to provide wireless access for a previous session. If you fail to remove it, the laptop will automatically use the Hot Spot wireless connection instead of the General wireless connection that you are setting up.

2. On the *Wireless Networks* tab, under the *Preferred networks* heading, click *Add* button.

The *Wireless network properties* window displays with Association, Authentication, and Connection tabs. The Association tab should be selected.

3. Enter the *Network name (SSID)*: **MCC_GENERAL** and press *TAB* key (case is important!)

MCC_GENERAL is the identifier for secure General access to the college's network.

4. Ensure the values selected from the two dropdown lists are:

Network Authentication: *Open*
Data encryption: *WEP*

Note: You may have checkboxes for these entries if you do not have the most up-to-date patches installed for Windows XP.

5. Ensure the checkbox *The key is provided for me automatically* has a checkmark.
The data should look the same as in Figure 6 below.

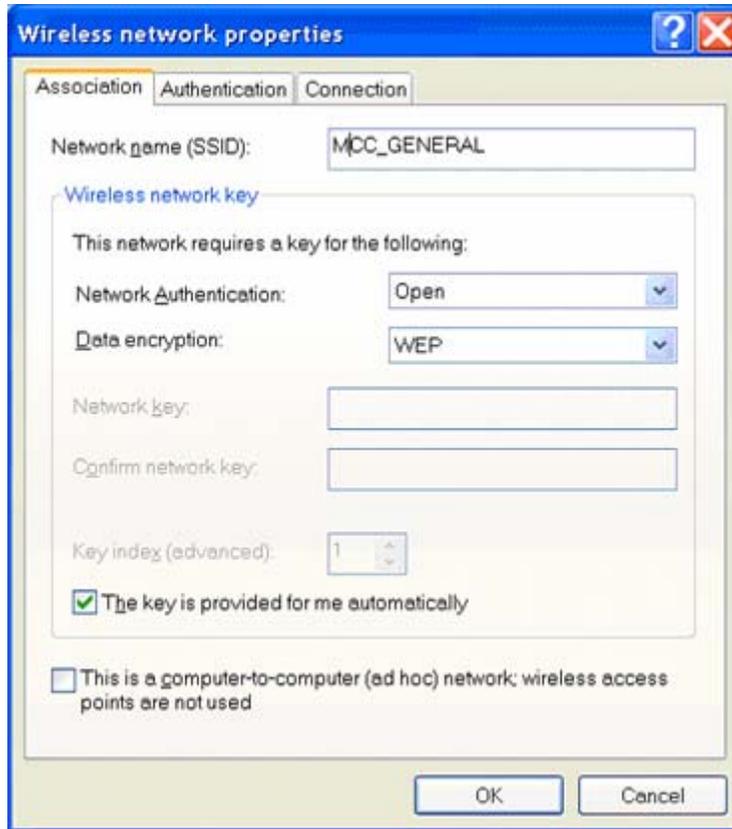


Figure 6

6. Click the *Connection* tab.



Figure 7

7. Ensure the checkbox *Connect when this network is in range* has a checkmark.
The data should look the same as in Figure 7 above.
8. Click the *Authentication* tab.

9. Ensure the checkbox *Enable IEEE 802.1x authentication for this network* has a checkmark.
10. Select *Protected EAP (PEAP)* from the *EAP type* dropdown list.
11. Ensure the last two checkboxes are NOT checked.

The data should look the same as in Figure 8 below.

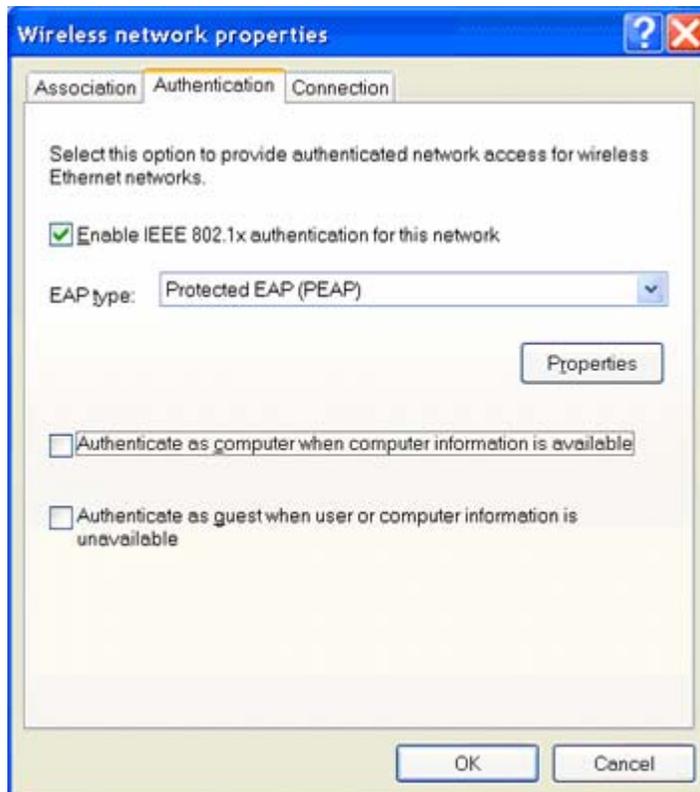


Figure 8

D. Setting Protected EAP Properties

1. Click the *Properties* button.
The *Protected EAP Properties* window displays.
2. Ensure the *Validate server certificate* checkbox is NOT checked.
3. Ensure the *Enable Fast Reconnect* checkbox has a checkmark.
4. All other options should NOT be checked
5. Select *Secured password (EAP-MSCHAP v2)* from the *Select Authentication Method* dropdown list.

The data should look the same as in Figure 9 below.



Figure 9

6. Click the *Configure* button.

The *EAP MSCHAPv2 Properties* window displays.



Figure 10

7. Ensure the *Automatically use my Windows logon...* checkbox is NOT checked.

8. Click *OK*.

The window closes.

9. Click *OK*.

The *Protected EAP Properties* window closes.

E. Closing-Up and Having Changes Take Effect

1. Click *OK*.

The window displaying the Authentication tab closes. The *Wireless Network Connection [number] Properties* window showing the Wireless Networks tab is displayed.



Figure 11

The *MCC_GENERAL* network has been added to the *Preferred networks* list.

Note: The software searches for networks-to-connect-to starting from the top of the Preferred networks list. Placing the network you are connecting to at the top of the list minimizes the time to connect. If you keep multiple preferred networks on the list, use the *Move up* and *Move down* buttons (in the window) to change the order of the networks.

2. Click *OK* to close the *Wireless Network Connection [number] Properties* window.

The *Wireless Network Connection [number] Properties* window closes. The changes you have made take effect.

3. Close any remaining open windows to return to the desktop window.
A balloon message may arise from the Wireless Network icon.

F. Connecting to a Wireless Access Point

Starting Point: Your Windows XP desktop window is displayed. Please wait two minutes before starting this section if a balloon message similar to one in figure 12 or figure 13 has yet to appear. It can take this long for your laptop to determine the status of any wireless connections due to a number of variable factors.

1. The first step to take depends on what you see on your screen:

A.

Is there a balloon message arising from the Wireless Network icon on the system tray that includes, “Click here to select a certificate...to the network MCC_GENERAL”?

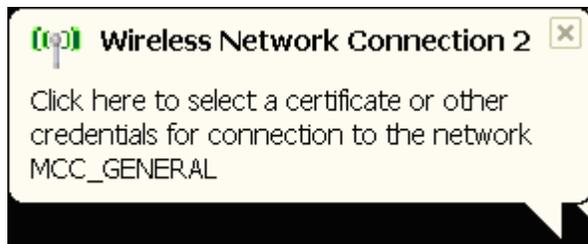


Figure 12

YES, I have this balloon message → Continue to step 7.

B.

Is there a balloon message arising from the Wireless Network icon on the system tray that includes, “Connected to: MCC_GENERAL...”?

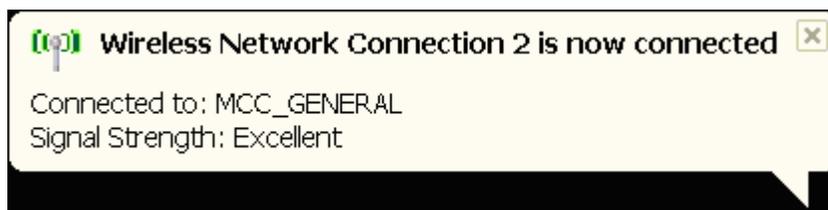


Figure 13

YES, I have this balloon message → You are connected. Continue to Wireless Login Procedure.

C.

There is no balloon message at all → Continue to next step.

2. Right-click the Wireless Network icon in the system tray of your desktop window.
3. Select the *Open Network Connections* option from the dropdown menu.
The *Network Connections* window displays.
4. Select the *Wireless Network Connection* entry.

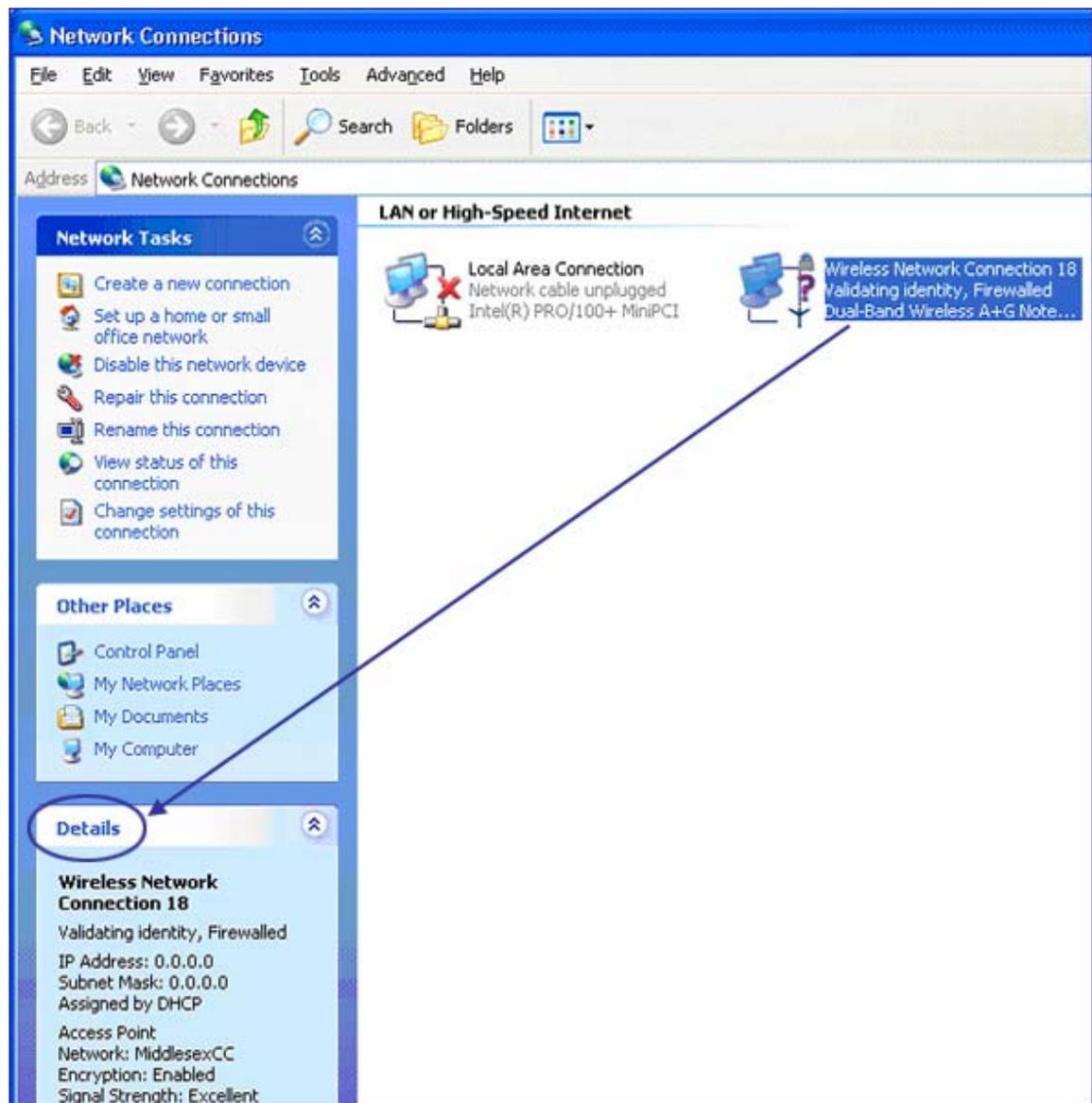


Figure 14

When the *Wireless Network Connection* entry is highlighted, details of the connection display under the *Details* heading in the lower left portion of the window.

Note: The following lines in the *Details* section can be quite helpful in providing key information about the state of your connection.

- The line after *Wireless Network Connection [number]* tells you the status of your connection. “Authentication Succeeded” indicates you have a successful connection (see next step).
 - *IP Address*: a number assigned to you by the network. An address of all zeroes indicates you do not yet have a successful connection.
 - *Access PointNetwork*: which wireless network your laptop is using for making a connection.
 - *Signal Strength*: indicates whether you have a reliable signal; a rating of “good” or higher is sufficient.
5. If the line in the Details section after *Wireless Network Connection [number]* says “Authentication Succeeded” and the Access Point Network line says “MCC_GENERAL” your connection to a wireless access point has been established, so continue to the next procedure: Wireless Login Procedure. Otherwise, continue to the next step.
 6. Double-click the *Wireless Network Connection* entry.

The process of establishing a connection to an access point usually takes 15 seconds or less, but it can be 60 seconds or more depending on the circumstances, so please be patient. Messages that flash on your screen for a second or two during this process should be considered as intermediate and informational messages that will not necessarily reflect the final status.

A balloon message arises from the Wireless Network icon in the system tray.

7. If you
 - are logging in wirelessly for the first time to MCC_GENERAL using this account on this laptop
 - have changed the password to your account since last wireless login
 - removed MCC_GENERAL from the Preferred networks list and added it backa balloon message displays similar to the one below

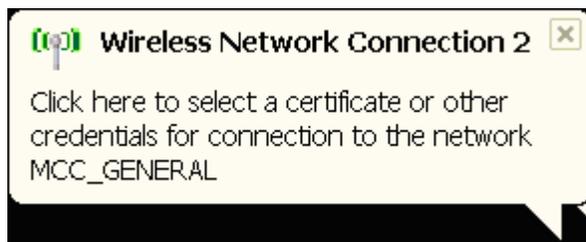


Figure 15

YES, I have this balloon message → Continue to step 9.

8. If this is the second time or greater that you are wirelessly logging in using this account on this laptop then a balloon message displays similar to the message below

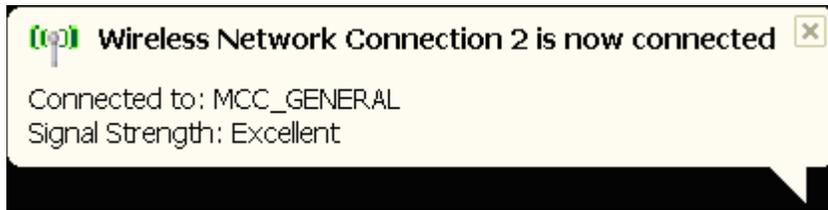


Figure 16

The message indicates that a successful connection has been made to MCC_GENERAL.

YES, I have this balloon message → Continue to step 10.

Note: Signal strength may vary. Excellent, very good, or good indicates a reliable signal. A fair or poor rating may eventually result in a dropped connection.

9. Click the balloon message.

The *Enter Credentials* (login) window displays.

Note: First-time wireless logins to MCC_GENERAL, accounts with newly changed passwords, and removing/re-adding MCC_GENERAL to the Preferred networks list are cases that require this additional login entry of username/password.

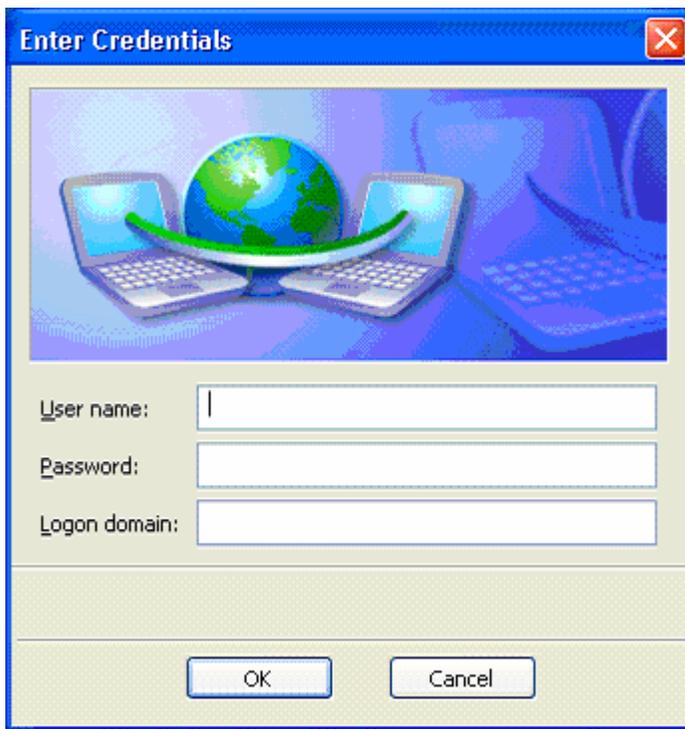


Figure 17

10. Enter the *User name* and *Password* for your network account leaving the *Logon domain* blank; click *OK*.

When a successful connection is made to MCC_GENERAL a balloon message displays above the Wireless Network icon in the system tray similar to the message below.

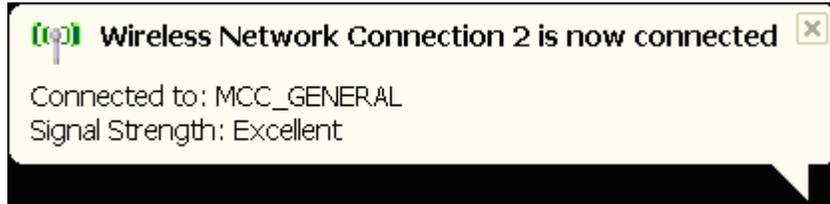


Figure 18

Note: Signal strength may vary. Excellent, very good, or good indicates a reliable signal. A fair or poor rating may eventually result in a dropped connection.

You have successfully completed the General wireless setup!

Wireless Login Procedure:

Starting Point: Your Windows XP desktop window is displayed

There are two major tasks to the wireless login:

- Establishing a connection to a wireless network through a wireless access point
- Entering login information (username/password)

Your laptop automatically tries to connect to the wireless network(s) on your Preferred networks list starting with the wireless network at the top of the list. MCC_GENERAL should already be on your Preferred networks list from doing the Wireless Initial Setup Procedure. If you have removed MCC_GENERAL from the Preferred networks list, go back to the *Connecting to a Wireless Access Point* section of the Wireless Initial Setup procedure and redo those steps to put MCC_GENERAL back on the list.

To verify the laptop has established a connection to MCC_HOTSPOT:

1. Place the cursor over the Wireless Network icon on the system tray.

An icon tag appears briefly with the following information if you have a connection:

Wireless Network Connection (MCC_GENERAL)
Speed: xxx Mbps
Signal Strength: xxx
Status: Connected

(“xxx” indicates variable information)

Note: Signal strength may vary. Excellent, very good, or good all indicate a reliable signal. A fair or poor rating may result in the connection being dropped.

2. If you have a connection to MCC_GENERAL, continue to step 5 and the Enter login information task
3. If you do not have a connection to MCC_GENERAL, repeat step 1 a few times over the next five minutes to see if a connection is eventually established.

Sometimes establishing a connection can be a slow process due to a variety of factors.

4. If a connection still can not be established then go back to the *Connecting to a Wireless Access Point* section of the Wireless Initial Setup procedure and repeat that section of the procedure. If you still do not have a connection, contact the Help Desk for support.

To perform the Enter login information task:

5. Open a browser of your choice.

Depending on your browser settings, the following security alert may appear.



Figure 19

6. Click *OK*, if it does appear.

Another security alert message may also appear.



Figure 20

7. Click *Yes* to this Security Alert message, if it does appear.

The MCC login network page displays regardless of whether any Security Alert messages appear.

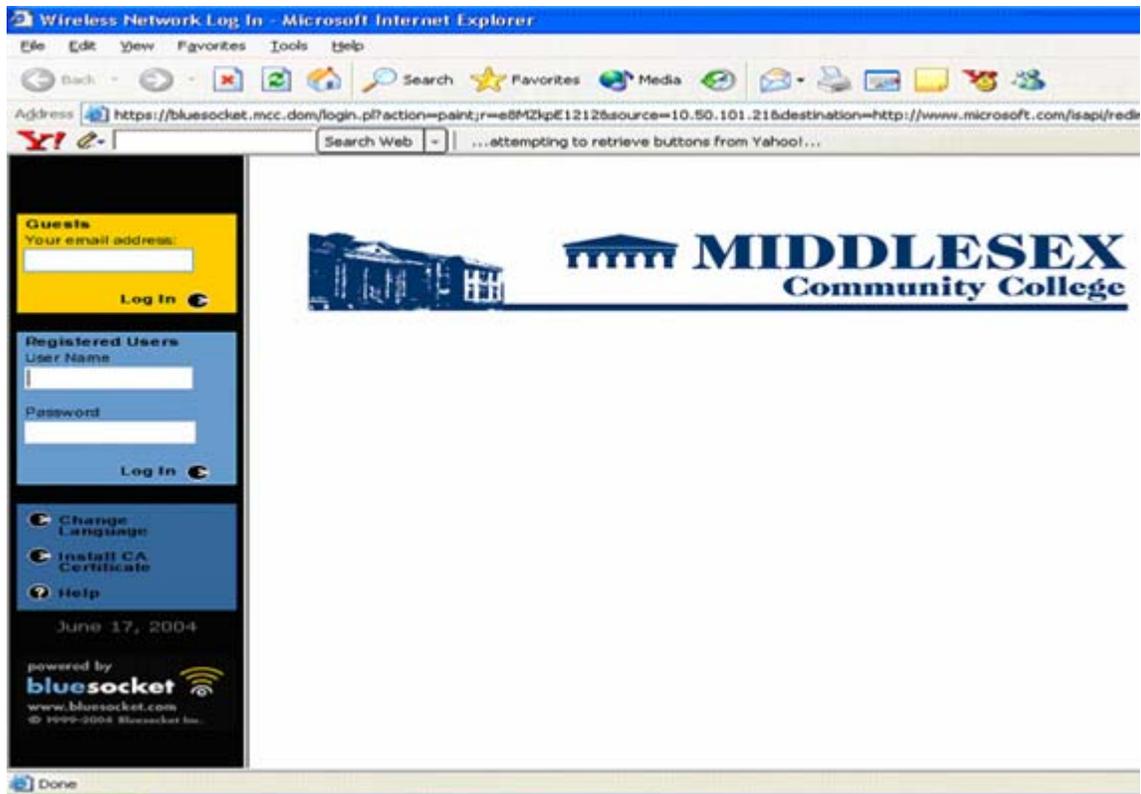


Figure 21

8. Under the Registered Users heading, enter the User Name/Password for your network account and press *Enter* or click *Log In*.

A bluesocket message box displays and your designated home webpage.

9. Minimize the bluesocket message box. Do NOT close it.

You have successfully logged in using a General wireless connection.

Note: If you use both MCC_HOTSPOT and MCC_GENERAL wireless networks and keep both on the Preferred networks list, you need to be aware of the selection behavior from that list. Every time you use the laptop on campus, the wireless software automatically tries to connect to MCC_HOTSPOT over MCC_GENERAL. The only way to override this behavior and use MCC_GENERAL is to remove MCC_HOTSPOT from the Preferred networks list. There is a Remove button on the Wireless Networks tab (see figure 4) to remove networks from the list (see step 1 of the section, Add General Access to Preferred Networks List in Wireless Initial Setup Procedure).

Wireless Logout Procedure:

When you're finished using the wireless connection and are ready to logout:

10. Click the bluesocket button on the task bar at the bottom of your desktop window.

The bluesocket message box redisplay (you previously minimized it).

11. Click the *Click to Logout* text.



Figure 22

Your connection is terminated.

You have successfully terminated your General wireless connection.

Network Icon Not Present Procedure:

If options on your laptop are not set up to display the Wireless Network icon in the system tray of your desktop window, you take the following steps to reach the windows that control your laptop's wireless settings.

1. At the desktop window: Click *Start* → *My Computer*.
The *My Computer* window displays.
2. Under the *Other Places* heading: Click *My Network Places*.
The *My Network Places* window displays.

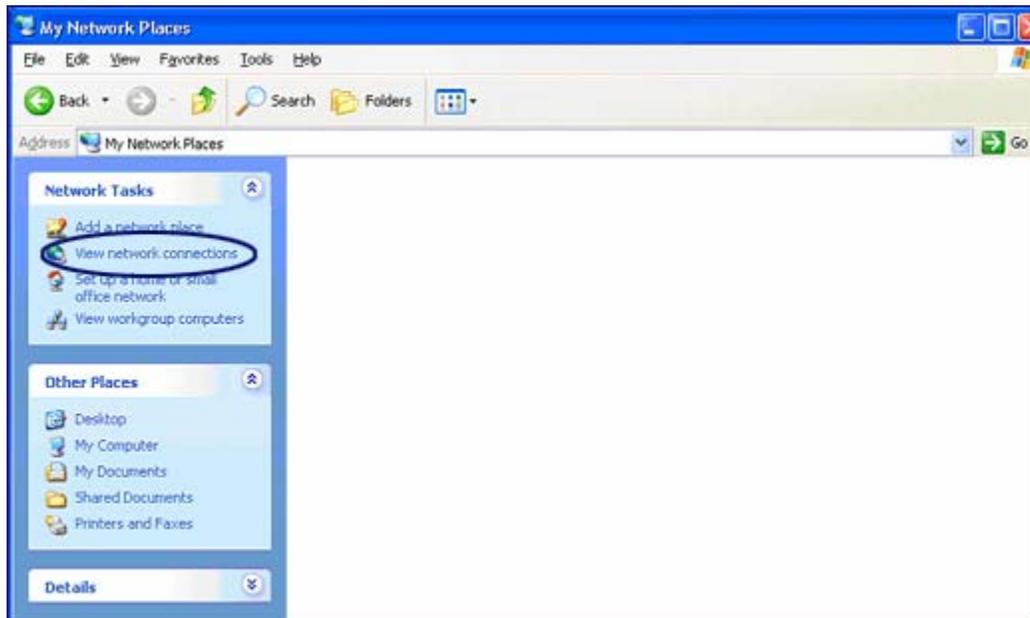


Figure 23

3. Under the *Network Tasks* heading: Click *View network connections*.
The *Network Connections* window displays.

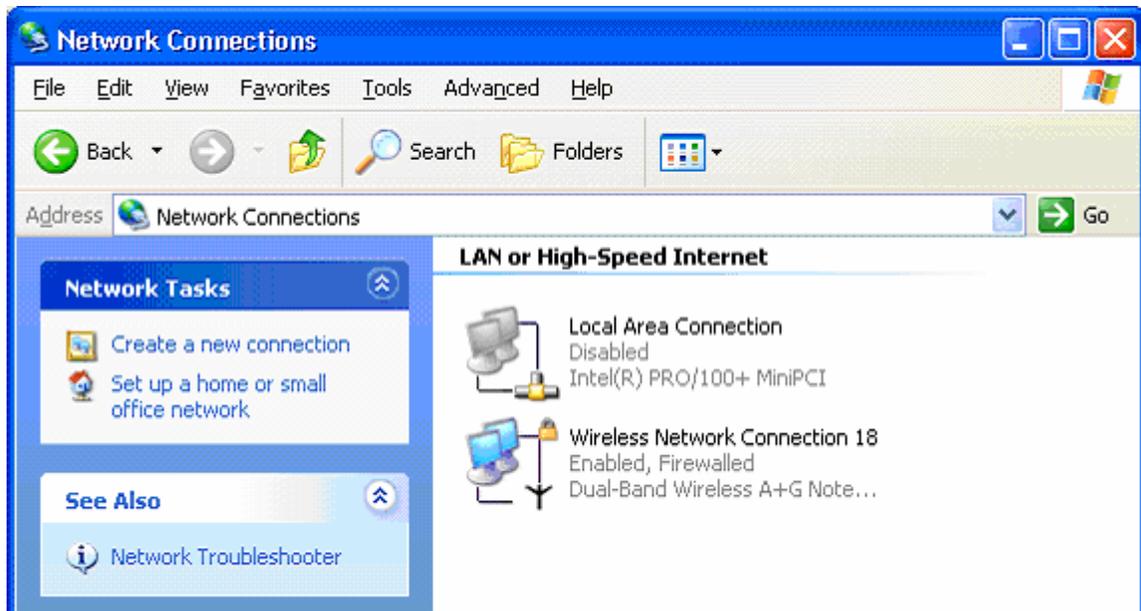


Figure 24

This is the same window that opens in step 3 of the section, *Navigating to the Wireless Network Connection Properties* in the *Wireless Initial Setup* procedure.

Continue at step 4 in the *Navigating to the Wireless Network Connection Properties* section of the *Wireless Initial Setup* procedure.