Troubleshooting Network Problems

Windows XP: Wireless

Type: Troubleshooting

Connection: Wireless

Lewis & Clark College

Software: Windows XP

Overview

Is your network software not working properly? Wireless connections can be especially vulnerable to lost connectivity due to local interference with the wireless signal or loss of signal due to your laptop computer going to sleep or losing battery power. This helpsheet contains tips and instructions to help get your network connection back up and running quickly if you are connecting via Wireless and have a computer running Windows XP version.

This helpsheet does not discuss general system problems such as applications that won't start, crash with error messages or force you to restart your machine. If you are experiencing these types of problems, consult your manuals and call the IT Help Desk at x7225 for assistance. This helpsheet will take you through the general troubleshooting topics listed below.

- **Restart Computer**
- **Check For General Network Outage**
- **Is It A Network Or Software Problem?**
- **Check Network Software Settings**
- **Check Network Hardware Settings**

Before you spend time troubleshooting your connections and network settings, try RESTARTING YOUR COMPUTER.

Sometimes a system error can cause a computer to lose or "forget" a network connection. This can also happen when your computer goes to sleep or a notebook computer does an auto shut-down due to low battery power. In this case, restarting your computer will force the machine to attempt to reconnect to the network. Keep in mind that many laptop computers do not fully power down unless you depress the power key for at least 5 seconds.

1. Restart your computer.
2. From the **Start** menu (lower-left corner of the screen), select **Control Panel**.
3. Windows XP Home: Double-click on **Network and Dial Up Connections**.
   Windows XP Professional: Double-click on **Network Connections**.
4. Double-click on **Wireless Network Connection.**
5. The connection should show as enabled and show you are connected to the LC Wireless Network.
6. If you are connected, launch your web browser to visit the wireless network authentication web page.
   Windows XP automatically detects and displays installed network cards. If you do not see a Wireless Network Connection icon, skip to the Network Hardware Settings section of this document.

Before You Spend Time Troubleshooting Your Connections And Network Settings, Check For A NETWORK OUTAGE.

Remember, wireless connections can be especially sensitive to fluctuations due to antenna and signal strength. If you are having problems connecting to the network, go to the Help Desk or another location where you know the signal is strong.

Determine Whether You Have A Network Connectivity Or Application Specific Problem.

Determine if your problem is specific to an application, by opening up another Internet application, such as Internet Explorer or Mulberry, to see if it can connect to the network. If your connectivity issue is related to the program only, call the IT Help Desk or see our Software Troubleshooting Helpsheet.

Check your network software settings

1. From the **Start** menu (lower-left corner of the screen), select **Control Panel**.
2. Windows XP Home: Double-click on **Network and Dial Up Connections**.
   Windows XP Professional: Double-click on **Network Connections**.
3. Double-click on **Wireless Network Connection** to view available wireless networks.
   - Windows XP automatically detects and displays installed network cards. If you do not see a Wireless Network Connection icon, skip to the Network Hardware Settings section of this document.
   - Windows XP Home: If your status is 'connected' skip to step 12.
     Windows XP Professional: If your status is 'connected', click **properties** before moving on to step 12.
4. If LC Wireless appears on your network list, select it and click **Connect**. Launch a web browser to see if you are directed to the LC Wireless login page to authorize your connection to our wireless network.
5. If you do not see the LC Wireless network listed, click on the **Advanced** button in the lower left corner to add it.

   - In the Preferred Networks section, click on the **Add** button.
   - Click on the Association tab. Type **LC Wireless** in the Network name box. This is case-sensitive.
   - For Data Encryption select **Disabled**.
   - Click **OK** to exit and save your changes.

5. Under **Connect Using**, you should see the brand name and model number of your ethernet card. If your ethernet card is missing, skip to the Network Hardware Settings section of this document.
6. Under **This connection uses the following items** you should see:
   - **Internet Protocol (TCP/IP)**.
7. If the TCIP/IP network protocol is not installed, you will need to add it, otherwise, skip to step 12.
8. To add the TCP/IP protocol, click **Install** to open the Select Network Component Type box.
9. Select **Protocol** and click **Add**. This will open the Select Network Protocol box.
10. Select **TCP/IP** from the list of available protocols. Click **OK** to exit the Network Control Panel and install the TCP/IP protocol. Say **Yes** when prompted to restart your computer.
    If TCP/IP is not an available protocol, contact the IT Help Desk (x7225) for assistance.
11. Check your TCP/IP properties by selecting the **TCP/IP Protocol** and clicking on **Properties**.
    - Select **Obtain an IP address automatically**.
    - Select **Obtain DNS server address automatically**.
    - Click **OK**
12. Click **OK** to save your settings.
13. **Restart** your computer and attempt to connect to the LC Wireless Network by launching your web browser.

Disable WEP Encryption

Our wireless network does not support Data Encryption. If you persist in having problems connecting to our network, check to make sure data encryption is turned off in your wireless card setup (usually accessed by clicking on the Advanced tab in your wireless connection properties). For assistance, visit or call the IT Help Desk (x7225)

Check your network hardware settings

1. Click with the **RIGHT** mouse button on the **My Computer** icon and select Properties.
2. Click on the **Hardware** tab.
3. Click on the **Device Manager** button.
4. View devices by type. Expand the list of network adapters by clicking on the **+** sign by the Network Adapter listing.
5. If no wireless cards are listed, you may have a faulty card. Consult your system documentation to make sure you have a wireless card. You may also need to contact your computer manufacturer for further troubleshooting assistance. If you are not sure how to proceed, contact the IT Help Desk (x7225) for advice.
6. Double-click on your wireless card to view **properties**.

7. Check the **device status** area in the middle of the properties window to see if your network card is working properly.
8. If your card is not working properly, you will need to remove and then re-add it. **LOCATE THE DRIVERS FOR YOUR WIRELESS CARD BEFORE YOU ATTEMPT THIS.** Drivers are typically found on the diskette or CD-Rom that came with your card. You can also download network card drivers from most manufacturer's web sites.
9. Click **OK** to return to the device manager tab.
10. Note the name and model number of your wireless card and then click **remove**.
11. Click **OK** to return to the Hardware Tab.
12. Click **OK** to exit System Properties.
13. **Restart** your computer.
14. On restart, Windows will detect your wireless card and launch the **Add New Hardware** wizard. Follow the prompts to add your network card. If Windows does not detect your card and launch the wizard, contact the IT Help Desk (x7225) for assistance running the Add New Hardware wizard manually.

Disable Other Network Connections

1. If you have more than one connection method listed, such as a Local Area Connection, it may be interfering with your wireless connection. You may need to disable the connection before you can connect to the Wireless network.
2. From the **Start** menu (lower-left corner of the screen), select **Control Panel**.
3. Double-click on **Network and Dial Up Connections**.
4. To disable a connection, double-click on the connection icon. Click on the **Disable** button to turn this connection off. You will need to go back to your Network and Dial Up Connections folder to enable these connections if you wish to use them at another location.

If you have any questions or need further assistance, please contact the IT Help Desk at x7225 or visit us in the Watzek Library. You can also send questions by e-mail to consult@lclark.edu.