



EDSD, LLC
P.O. Box 8986
Missoula, MT 59807

(406) 829-1200
sales@edsd.com

A Tutorial on How to Setup a PC for the Internet

So you've just unwrapped your brand new computer from under the Christmas tree and can't figure out how to connect it to the internet? The following steps will greatly reduce the time required to setup a computer to connect to the internet.

The first step to get your computer connected to the internet is to determine what kind of internet service to go with. In today's world there are a lot of options, and determining the right one for your needs can sometimes be tricky. In Missoula there are three main choices.

1. Dial-Up
2. Low Latency Broadband (DSL/Cable)
3. High Latency Broadband (Wireless/Satellite)

Let us break down these options into pros and cons:

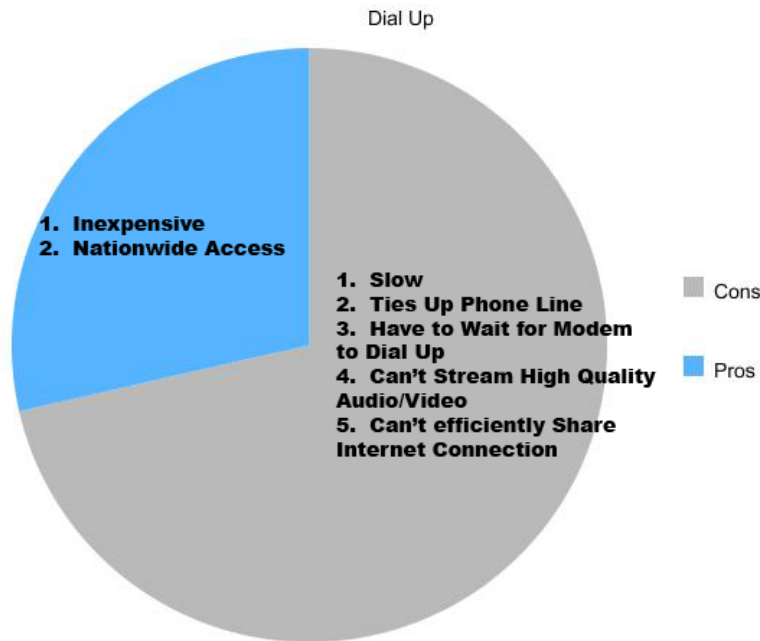
Dial-Up

The first option is Dial-Up internet access. Dial-Up is great for the occasional internet browser that won't be downloading large files or streaming audio/video. There are a lot of Dial up Internet Service Providers (ISP) in the Missoula area. A few of the more common ones are NetZero, Netscape, Juno, and AOL.

Even though dial-up's pros are outweighed by its cons, there are some definite advantages to dial-up. Dial up is less expensive than any high speed option, usually by at least half. Perhaps the biggest advantage to dial-up internet users is the ability for people that live in rural areas or people that travel a lot to have nationwide access. If you have a live telephone you can get dial-up internet access.

Dial-up internet though is very slow making downloading large files and watching online movies or videos difficult, if not impossible. Dial-up internet also ties up your phone line when connected to the internet. You would need two phone lines to be able to talk on the phone and surf the internet at the same time. Sharing your dial-up connection can be

done with dial-up, but your speed would greatly suffer depending on the number of users connected. When connecting to the internet there is a delay to browse, usually about 30-60 seconds, until your modem dials in and makes the connection.



Low Latency Broadband

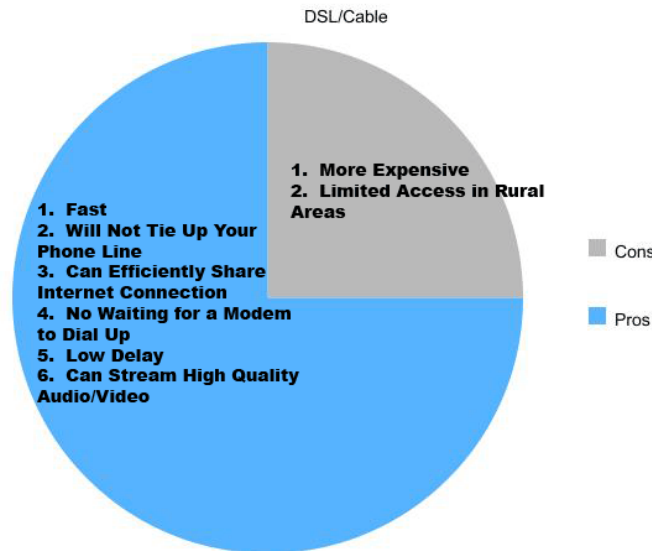
The second Internet access option is low latency broadband internet such as Cable/DSL. Cable/DSL Internet access is great for users that plan on spending a decent amount of time online downloading files. High Speed Internet Service Providers (ISP) in the Missoula area is Qwest (DSL), Blackfoot (DSL), and Bresnan (Cable).

In networking latency is the amount of time it takes information to travel from source to destination. Together, latency and bandwidth define the speed and capacity of a network. Therefore a low latency connection is better than high latency connection. To further clarify, latency is the delay while you wait for the information to be sent to your computer.

DSL and Cable are the most common forms of low latency internet. DSL/Cable internet is faster than dial-up which allows you to watch movies and videos easily. DSL/Cable internet is always on, meaning that you don't have to wait for the modem to establish a connection like you do with dial-up. DSL/Cable internet will not tie up your phone line. You can easily use you phone and internet at the same time. DSL/Cable is perfect for users that want to share their connection with other computers in the house without taking a huge speed hit.

With all the great features DSL/Cable has to offer there are a few negative aspects. First off it is more expensive than dial-up. As with any product that is an improvement over

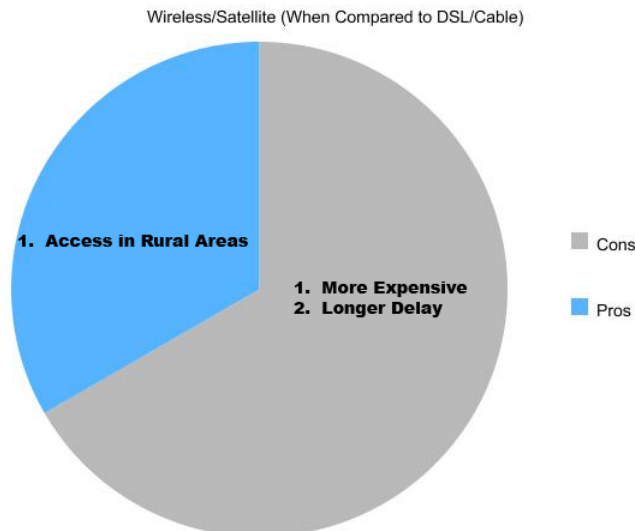
its predecessor, there is guaranteed to be a price increase. DSL/Cable is limited in terms of coverage area. Users hoping to get hooked up with DSL or Cable internet will need to live in or close to a town that has upgraded to take advantage of this great technology.



High Latency Broadband

The third internet access option is High Latency Broadband such as Satellite and Wireless. The two main providers of these services are, DIRECTV (Satellite), and Montana Wireless (Wireless).

Satellite and Wireless are similar to DSL and Cable with the following exceptions. Satellite and Wireless are more expensive than DSL and Cable as well as being more latent. However, these services allow users that live in rural areas to have a high speed internet connection. Wireless connections can often reach users up to 30 or 40 miles from the tower, and Satellite internet is available to anybody in the Continental US.



How to Connect to the Internet with a Dial Up ISP?

The first step in connecting to a Dial up ISP is to make sure that you have a modem installed. To do this you can look at the back of your computer and look for the modem manually or you can go into the device manager to see if a modem is installed. To look in the Device Manager follow these steps:

Windows XP

1. Click on "Start"
2. Right Click on "My Computer" and Click "Properties"
3. Click the "Hardware" tab and Click the "Device Manager" button
4. The following is a list of all the hardware installed on your computer. Look for an item called "modems". If you see that you have a modem installed

Windows 95/98

1. Go to the desktop
2. Right Click on "My Computer" and Click "Properties"
3. Click the "Device Manager" tab
4. The following is a list of all the hardware installed on your computer. Look for an item called "modem". If you see that you have a modem installed

If you don't have a modem installed you will need to install one. You can buy a modem for around \$15.00. Caution: Installing an internal modem requires that the case of your computer be opened which could result in damage to your computer. If you need help installing your modem EDSB will install it for \$37.50.

The next step is to make sure your modem is connected to an active phone line. Once you have run a phone line from a phone jack to your modem in your computer it is time to install their software.

To setup most Dial Up accounts you will need to install their software. This can be done by going to a friend's house, downloading the software and burning it to a CD, or you can obtain a CD directly from the ISP (a list of contacts can be found towards the bottom of this document). AOL, for example, spends a lot of money to make CD's easily accessible by leaving them at discount stores and supermarkets. Target, Wal-Mart, Burger King, and your local grocery store are a few good places to look for an AOL CD.

Once you have their CD and have installed their software you are ready to create an account with them. In most cases a credit card is required. Just answer a few easy questions and your computer is ready to go.

How to Connect to the Internet with a High Speed ISP?

Once you have ordered high speed from the ISP of your choice they will either send a package with all the hardware and software to your home (typical of DSL) or they will install it on one computer (typical of Cable/Satellite/Wireless). In the case that they send you the components needed to connect they will send detailed instructions on how to get setup and connected. Follow those instructions and you will be up and running in no time. Better yet if they send someone out to your home to install service on your computer you are done, they will take care of the rest. Unless you have more than one computer and you want to be able to use the internet on both of them. In this case extra hardware is usually required.

What you will need to purchase is a broadband router. There are two kinds, wired and wireless. For the scope of this document we will focus on wired connections as wireless connections can sometimes be tricky. However if you choose to install a wireless network in your home make sure that it is properly secured. Since there is no physical data transport mechanism (a network cable) it is inherently easy for hackers to break into your wireless network if the proper steps are not taken.

After you have purchased a router you will need to put this in place. To do this you will need to unplug the network cable from the back of your computer and plug it into the WAN port on the back of your new router. Most routers have four ports for connecting additional computers. With another cable you will plug it into one of the four ports (it doesn't matter which) on the back of the router, and the other end into the back of your computer. Follow these steps for connecting up to three additional computers. If you want to network more than four computers you will need to purchase a network switch.

The final step in ensuring that all of your computers will be able to access the internet is to make sure that the router is assigning the IP address to your computer.

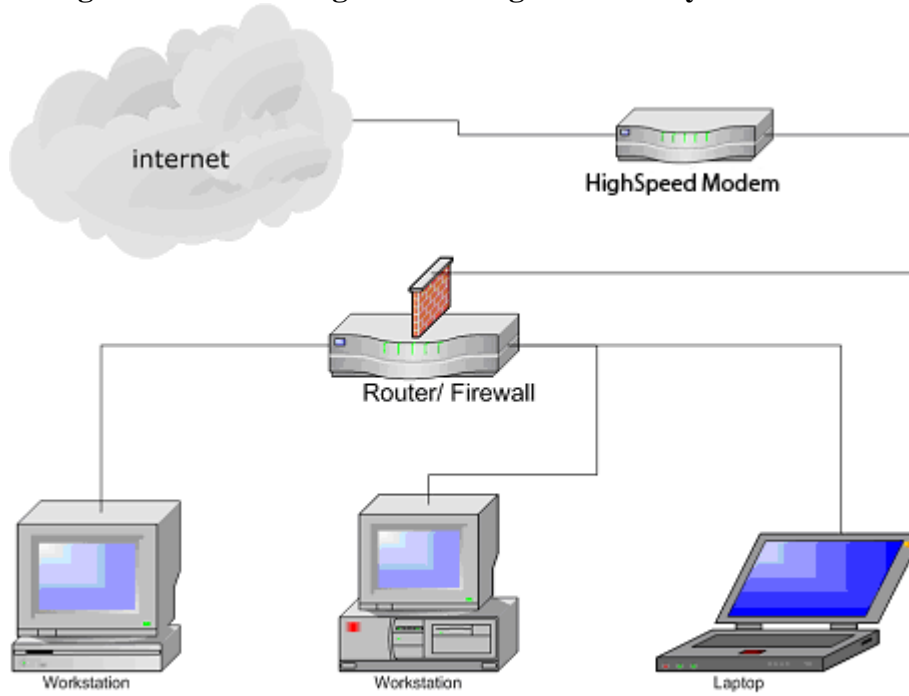
For Windows XP users

1. Click "Start"
2. Click "Control Panel"
3. Click "Network and Internet Connections"
4. Click "Network Connections"
5. Right Click on "Local Area Connection" and click "Properties"
6. Under the "General Tab" Select "Internet Protocol/TCP/IP"
7. Click "Properties"
8. Make sure that the radio buttons for "Obtain an IP address automatically" and "Obtain DNS server address automatically" are selected
9. Click "OK" on the following windows
10. Your computer is now configured to obtain an IP address automatically

For Windows 95/98/ME Users

1. Click "Start"
2. Click "Control Panel"
3. Click "Network"
4. Select "TCP/IP -> XXXXXX" (Where XXXXXX is the name of your Ethernet adapter) Do not select "TCP/IP-> Dial-Up Adapter"
5. Click "Properties"
6. Under the "IP Address" tab make sure that "Obtain IP Address Automatically" is selected
7. Click the "DNS Configuration Tab"
8. Make sure that "Disable DNS" is selected
9. Click on the "Gateway" tab
10. If there is anything under the "Installed Gateways" area select it and click remove.
11. Click "OK"
12. A window will pop up asking you to restart your computer. Click "Yes"

The figure below is a diagram showing the basic layout of a network.



Contacts

The following table is a list of the most common ISP's and their Customer Service phone number.

<u>ISP</u>	<u>Phone Number</u>
Qwest	(800)244-1111
Blackfoot	(406)541-5000
Bresnan	(406)728-4200
Netzero	(888)349-0029
Netscape	(800)716-7445
Juno	(800)390-5866
AOL	(800)392-5180
DIRECTV	(888)238-7177
Montana Wireless	(406)542-7555

* EDSD, LLC is not, in any way, affiliated with any of the companies listed above. This list is intended to be used as an aid in determining the best possible ISP for your needs.

Hopefully this document was useful in helping you determine the ISP right for you and for setting up your computer for internet access. In the event that further steps are needed, or a more complicated network scenario exists EDSD can help. Please give us a call at 829-1200 to schedule an appointment.