

Help Me Understand my Internet Service Options!!

By Donna Hall

If you live in the Aubrey, Pilot Point, Little Elm, Celina, Gunter, Crossroads, Sanger, or Lakes areas, your Internet Service Provider (ISP) options are varied. It is imperative to understand what each option entails and what you can get for your hard earned money.

The most basic definition which is required in order to understand all your options is: bandwidth.

In electronic communication, bandwidth is the width of the range (or band) of frequencies that an electronic signal uses on any given transmission medium. In this usage, bandwidth is expressed in terms of the difference between the highest-frequency signal component and the lowest-frequency signal component. Therefore, the amount of bandwidth needed is very important when choosing an ISP. (Ask yourself, what will I be using the internet for?) In general, "Broad"band refers to telecommunication in which a wide band of frequencies is available to transmit information. Because a wide band of frequencies is available, information can be multiplexed and sent on many different frequencies or channels within the band concurrently, allowing more information to be transmitted in a given amount of time (think of this as more lanes on a highway allow more cars to travel on it at the same time). Broadband is a great thing!!

Dial-Up Modem: Oldie but a goodie

This old but good IS modality consists of your computer physically dialing a number over your phone line to connect to the internet. It has to be dialed up each time and the signal is constrained in a physical telephone line (think of a one lane highway, bumper to bumper traffic and no shoulders on either side.) A 56-kbps modem costs as little as \$20 these days, and would be required to send your computer's signal. If you have more time than money, and you don't need to gather MP3 files, download the latest Matt Damon "Bourne" installment, or watch the Yankees online, dial-up is a good deal for you.

Enter Broadband

Broadband encompasses many different technologies. Which one you get depends on what's available in your neighborhood, how much you are willing to pay, and how broad the bandwidth you really need.

DSL and CableDigital

Service Line (DSL) refers to your internet connection again using a physical phone line, however, it is always-on, and so you don't have to wait while establishing a connection. (Now think of your highway extending to two lanes in each direction, but there is still loads of traffic, especially during rush hour or peak internet usage times.) DSL can also be tricky to install because it uses phone wires that already run to your house. Texas requires that the local phone company that owns the wiring infrastructure make it available to competing companies, yet they must be located within 18,000 feet of the company's central office. Consequently, they tend to be most widely available in urban and thickly settled areas and run between \$40 and \$60 per month.

Cable is similar to DSL in that it uses wires that already run to your house, except that they are CATV (cable television) wires instead of phone lines and the connection is always on. Cable can be a bit faster than DSL in gen-

eral (think of a three lane highway in each direction, but there is still traffic at peak times) but it isn't trouble free. Because cable modems use shared connections, they're prone to slow downs if too many users along a particular stretch of cable are online at one time (think again of rush hour traffic and all the cars exiting the highway on the busiest off ramp.) You would probably see the fastest cable-modem performance in the wee hours of the morning, after all the neighbors have gone night-night. Cable runs about the same cost as DSL per month.

Enter Wireless Broadband

Wireless Broadband is a fairly new technology that provides high-speed wireless internet and data network access over a wide area. This technology provides internet that is on all the time, but uses neither your phone nor cable television lines. A signal is transmitted from a tower or tower network, through the air (without any type of corded containment) to a radio which is mounted on your roof or other point of reception (think of a highway with limitless lanes in both directions and no traffic.) The receiving radio is then hardwired into your house to a computer or router system.

Our local area wireless broadband provider, Speed of Light Broadband, provides download speeds of up to 10 Mbps and covers a range of approximately 600 sq. miles. SOL Broadband was started by Sanger resident, Tim Durkin in 2001. The company is headquartered in Aubrey. Tim Durkin has been involved with internet service since his birth, coming out of the womb with 1's and 0's flush amongst his lanugos. (This is a joke of course.) Nonetheless, Tim is the internet pioneer in our area, as he started Speed of Light Broadband from nothing (he even did the first 150 installs himself) and built it to a successful and reliable internet service provider for the rural North Texas area. For more information see www.sol-broadband.com or call 940-343-1406.