Dsl Vs Cable Essay, Research Paper

DSL (Digital Subscriber Line) vs. Cable modem

The new competition for Internet Service Provider (ISP) is the new high-speed digital technology, which refers to as Broadband. This high-speed digital technology comes in two different forms: Cable modem or DSL (Digital Subscriber line). Cable modems use your local cable TV lines and DSL use the already existing phone lines. These two services are competing on availability, security, speed, reliability and finally price. Therefore, let s compare the two.

The first component is availability. One of the main disadvantages of the DSL service is that only systems within 3 to 4 miles of telephone switching office can use DSL. Since cable doesn t have the distance limitations as DSL, cable Internet is generally for homes that are already wired for cable TV. However, many businesses aren t wired for cable. This gives DLS the advantage in the commercial area.

The next competing component is security. Security is always a main concern when dealing with the Internet. Since cable modems are operated on a shared system, this have many people concern about security. Cable Internet shares its bandwidth with 100 or so TV channels. Cable is a broadcast service, so the same signal is sent to every subscriber. The receiving cable modem recognizes the parts of the signal that are meant for the particular customer. DSL service, on the other hand, is more secures than using cable modem because DSL provides a dedicated connection over the existing telephone line.

Speed is also a main concern when dealing with the Internet. Both cable modem and DSL provide download transfer at much faster rates than ordinary 56Kbps modem. Cable modems are capable of receiving data at 3Mbps to 10Mbps. However, this speed tends to be slower when data is being sent upstream, from your PC to the Internet. It is then limited to a maximum speed of 2Mbps. However, transfer rates can drop significantly if everyone on the block logs on at the same time. DSL services, on the other hand, gives user dedicated bandwidth. However, the speed of DSL often depends on how close the home or business is located to a telephone company. Person that are located close enough to the telephone company central office that offers DSL may be able to receive data at rates up to 6.1Mbps. Individual connection, however, provide from 1.5Mbps to 512Mbps downstream and about 128Kbps upstream.

When it come to reliability, local cable company has a long history of not offering high-quality television server, so it seems even more doubtful that they will provide high-quality Internet service. The telephone company, on the other hand, has been providing high-quality, uninterrupted service to its customers for years. Yet, when we look in term of amount of time a service has been available, DSL technologies are only about a year old and Cable modem technologies, on the other hand, are at least 6 to 7 years old. Therefore, cable modems, which deliver Internet access over a cable television connection, are far better established.

Finally, these two systems are competing on price. Cable Internet is reasonably priced. You can get a cable connection for $30 to 40 and the cost of cable TV service per month. In addition the actual cable modem that is necessary in order to receive Internet service is usually either provide to the customer by the cable provider or is relatively cheap to buy from computer stores. DSL connection cost, on the other hand, range from $20 to $200, but many times that doesn t even include the DSL modems. The reasons that cable service cost less than DSL is because it s on a share system. A coaxial cable traveling in a neighborhood from house to house can provide high-speed Internet to thousand of customers. A single piece of equipment at the cable company s office can patch those thousand of customers onto the Internet. DSL, on the other hand, requires a separate pair of wires for each subscriber. The telephone company must install a special DSL modem for every DSL user at its central office.

The bottom line here is that neither telephone companies nor cable companies are doing everything that they can to roll out their technology very quickly. This is due to the fact that they would be replacing a lot of the infrastructure that they ve invested in over the years which is still working fine for carrying telephone or cable-TV signals. On the further note, PC s in homes wired for cable but also close enough for DSL have the option of choosing either service. However, it is most likely that the home market will decide to go with cable modem since it is relatively cheaper. Business, on the other hand, is interested in maximum speed, security, and guaranteed performance will probably chose DSL.