

Broadband vs. Dialup Internet Connection

Parents across the nation have already been introduced to broadband Internet connections such as cable or DSL (Digital Subscriber Lines) by their children, who want to have a faster, higher-quality connection. Whatever your reason for considering purchasing a broadband connection, it is very useful—and important—to know the differences between broadband and dialup Internet connections and the advantages and disadvantages between each of them before making a decision to go high-speed.

The fundamental difference between dialup and broadband Internet connections is the manner in which the connection is made from your PC to the Internet. A dialup service connects to the Internet through your phone line. The modem in your PC “calls” an Internet Service Provider (ISP) and connects with a maximum speed of 56,000 bytes per second, better known as a 56K speed connection. Each time your PC dials into the ISP, it is assigned an Internet Protocol (IP) address, which you can think of as an “Internet address.” A different, unique IP address is assigned at the beginning of each visit so that the ISP can recognize your PC and make sure you can send and receive email, surf the Internet, and so on; basically, this address lets your ISP know where to send the information you are requesting through your modem. In terms of hackers, in order for someone to gain access to your computer, it would be necessary for them to know your IP to successfully do so. The fact that your IP address constantly changes essentially makes your Internet connection more secure.

In contrast, when you connect to the Internet via a broadband Internet connection, the process is slightly different. Once your PC is connected to the ISP through a cable or DSL connection, it *remains connected* until the cable box or DSL line is disconnected or physically unplugged. A DSL connection runs through unused wires in your existing phone line without disruption and can translate data at 5 million bytes per second, or 5Mbps. Broadband services are often referred to as “always on” services because it is not necessary to make a setup call to your ISP each time you wish to access the Internet; this means that once you are assigned an IP address, you keep it until you request it to be changed. We’ll learn how to do this in a later newsletter.

Connection speed and price are two important considerations when choosing between dialup and broadband. Dialup connection speeds make it more difficult to view certain types of media, such as video, and it can take much longer to download and open email attachments, play online games, and so on. Although the slower connection speed is a disadvantage for dialup users, there are also a few advantages to using this type of connection, which include lower monthly charges and a higher level of security. The cost difference is obvious when comparing the \$20-30 per month subscription fee for dialup and the \$50-60 per month subscription fee for most broadband services. In terms of security, because the connection is not “always on” and because you are assigned a different IP address each time, it is slightly more difficult to be attacked over the Internet, although nothing is ever fool proof and risks still do exist.

The advantages of a broadband connection can sometimes outweigh some of the disadvantages. The increased connection speed allows for ease in initial connection, duration of connection, no additional phone charges that may apply in dialing into an ISP, and variability of Internet use, such as an increase in allowable file viewing size. However, if you do choose a broadband connection, you’ll need to purchase a firewall—which we’ll learn more about later—to keep your computer “invisible” to the outside world.

In the ongoing debate of which is better dialup or broadband, there isn’t really a clearly correct answer. This question can only be answered by looking at your needs and resources and comparing them to what each option has to offer. If you use the Internet to check email, stock quotes, and visit the occasional website, dialup will be sufficient. But if you frequently download large media files, play games over the Internet, and view sites that are high in image content then you may be more satisfied with broadband service.