

Juice Your Broadband Speed

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People prefer broadband internet connections because of the obvious speed advantages over dial-up and satellite links. Then why is it that broadband never seems to be fast enough? Are you getting the speed promised by your ISP? Broadband can cost \$100 a month or more, but does the provider really provide the advertised speed? Is the connection reliable or does the modem need a reboot several times a day? Fortunately, there are ways to achieve high, reliable throughput without having to have an engineering degree. Here are some suggestions to get every bit per second possible from your modem without any technical hiccups or interruptions in service.

Start with your computer and TV equipment. A common source of line noise can be traced to improper grounding of anything that plugs into household electrical circuits. This can seriously degrade performance of cable equipment. Every electrical device, especially those in the same room as the cable modem, should be plugged into properly grounded outlets. The best connections are with polarized plugs oriented in the correct direction, and please don't use any three prong to two prong adapters. Get up-to-date gear. Electric outlet testers are cheap. Buy one and use it to test for excess voltage on your cable wiring. Any problem could indicate a serious safety hazard. Engage a licensed electrician to fix it.

Almost anything manufactured today in the consumer electronics world is light years ahead of its predecessors manufactured only two or three years ago. Cable modems are no exception, so if yours is more than three years old get a new one from your provider. Most providers will make a free exchange, but some will require an extension of your contract. You want to do this because the latest modems conform to the DOCSIS 2.0 standard. This offers higher upload and download capabilities and supports other advanced broadband applications, including online gaming and peer-to-peer computing.

Ask your ISP if they automatically update firmware for the modem. If they don't, have them supply the website address of your modem's manufacturer so you can download the most recent firmware. Check the website about twice a year for new updates.

Next, go to a test site such as PC Pitstop, and check your upload and download speeds to see if they match the terms of your service contract. If they don't, give your ISP a call and have them reset the modem's settings. While you're at it, have them check the

signal-to-noise ratio. Too much noise can cause interference, and your modem will then have to resend information cutting down on your throughput.

It's possible that your cable wiring may contain too many splices or simply be too long. That can be fixed by a visit from your ISP technician. Have the technician check the line quality leading to your house. If the signal is good and you're having problems, the house wiring may be the culprit. The definitive answer for cable modems is to create a split directly after the junction box and then run a new cable directly to your modem. The other side of the split will take care of your television sets which aren't nearly as sensitive to line noise.

After you've done everything from a hardware and firmware standpoint, and your cable connection is as clean as possible, you're ready to fine tune the system for best performance. Vista users don't have to do much of anything to optimize the operating system since Vista does TCP stack tuning dynamically. Any internet performance adjustments can be made through the browser. Firefox users may want to try Firetune or Fasterfox. They are both free utilities and allow adjustment to cache memory, capacity and other settings such as pipelining.

If you do a lot of downloading, you can save time by installing a download manager like Flashget. This widely used utility claims the highest number of users on the internet. It uses MHT (Multi-server Hyper-threading Transportation) technique. It's very easy to use and comes with exceptional document management features. Best of all, it's free.

After all this work, it would be a tragedy if you didn't keep in mind that sometimes the simplest solutions are the best ones. Most cable modems and routers have reset features. Many a mysterious internet ailment has been corrected simply by resetting the equipment. Turn off the computer and the modem. Un-plug the modem for a few minutes and then power everything back on. You may be pleasantly surprised.