

Diagnosing a Slow Internet Connection

Excerpts from Ask Bob Rankin

It's the nature of intermittent problems that they can be difficult to diagnose, because they are not easily reproducible. Many different things can cause your Internet connection to slow down. Some of them are within your control, but many are not. Here are some of the common causes for slow Internet connections.

Too many users sharing one Internet connection can slow everyone to a crawl. If you are sharing a "high speed" connection on your home network, you may experience slowdowns or stuttering (buffering) when others in the house are using Youtube, streaming a movie or TV show, or playing a graphics-intensive online game.

If you have cable Internet, you are sharing a connection with other households in your neighborhood? If the slowdowns happen around the time that kids are getting home from school, or weekday evenings between 8pm and 10pm, it's likely that your cable TV company has oversubscribed the equipment that serves your area.

This type of slowdown is unique to cable internet, because the service provider may not have allocated enough bandwidth for a particular neighborhood. If the connection becomes saturated when many people are using the service, speeds will drop. A fiber-optic solution such as Verizon FIOS will not be susceptible to this type of problem, because each subscriber has an "end-to-end" connection to the central office.

An unknown program may be downloading or uploading data in the background without your knowledge. It might be something innocuous, like a cloud backup operation, Windows Update, or it could be a virus, trojan, or other type of malware program. If your computer is ensnared in a botnet, it could be pumping out volumes of spam without your knowledge. Run a "deep scan" with your anti-malware software to uncover such problems.

Outdated software can result in a slow Internet connection. Make sure your operating system is up to date with the latest bug fixes and security patches. Visit the Windows Update website to make sure everything is up to date.

Another possible issue could be a data cap. Some service providers will "throttle" your connection speed if you exceed your monthly allotment of data. This happens more often on mobile phones and satellite internet connections, but can also happen

on wired home internet service. Some service providers limit download speeds during peak usage times, or if a user has recently downloaded a large amount of data.

This can happen even with "unlimited" data plans, which throttle you to super-slow "2G speeds" when you've used your bucket of high-speed data. Sure, you still have unlimited data in theory, but it's like driving a car that can only go 10 MPH on a superhighway. Check with your service provider if you think your speed may have been slowed down due to a data cap issue.

Checking Under the Hood

You can check your Internet download and upload speeds with www.Speedtest.net. You may find out that your actual speed is much lower than what your service provider has promised!

A slow Internet connection may be part of an overall PC performance drop. Your computer may need some general maintenance. Free PC Maintenance Tools will help you find software to use for those tasks.

A misconfigured router or overheated modem may slow down your connection. Reboot the router to see if that will clear up the problem. You can also try resetting the router to its factory defaults and configuring it all over again. Networking hardware is pretty durable but a router or network adapter can fail. Often hardware dies a slow death, with gradually slower connection speeds being one of the symptoms. Try a different router or network adapter to see if that helps. Turning it off and then on again, after waiting a bit may solve your sluggish Internet connection problem. Was it overheating, or was it clogged with transitory cybergunk? Who knows? You may get a replacement from the cable company, and the problem will be gone for good.

There may be a problem in the wire connecting your home to your ISP, or in the configuration of your ISP's equipment. Ask your cable or telephone company to conduct a line test. This may require scheduling a visit from a technician.

Sometimes there are traffic jams on the Internet; there's not much you can do about those. If some websites load speedily while others are slow, it could be there is a bottleneck between you and the slow-loading sites. Or the site you want to access could be bogged down with too many visitors. You just have to wait for the problem to be fixed, or try at some other time of day.

Slow Internet connections on mobile devices such as an iPad or smartphone are almost always caused by heavy network traffic or weak signal. There's nothing you can do about network traffic except wait for it to subside. Moving outdoors and away from tall buildings can help you get a stronger cellular signal. Wifi may be spotty in certain areas of your home. A signal booster/extender can help with this issue. Satellite internet connections can be affected by heavy rains, thunderstorms, and solar activity.