



What Affects Speed?

Every web page you view, file or download from the Internet is handled by dozens of computers before it appears on your screen. And like the age old adage - a chain is only as strong as its weakest link - the speed you receive from the Internet is largely determined by the slowest link in the data chain leading to your computer. Below, we've listed factors that can affect the speed of your Boycom Cable Modem connection.

1. The Host Server

The most common cause of slow speed on the Internet is the host server. This server may be mis-configured or underpowered for the number of people using it at the same time. A slow server can affect anything you do on the Internet.

Diagnosis/Cure:

- Try a few different websites (or FTP sites, or game servers, etc.) and see which one works the fastest.
- The speed of the fastest website or server you find tells you that your Boycom Cable modem is capable of delivering at least that much speed.
- If other websites or servers are slower, the problem is usually with those websites or servers.

2. The Host Server's Internet Connection

The servers from which you receive web pages, files, videos or gaming data connect to the Internet through an Internet Service Provider. These servers connect using one or more T1 lines, which can deliver a guaranteed 1.5 Mbps. If a server only has a single T1 line and ten people are using it simultaneously, each person will only receive 150 kbps, slowing the speed.

Diagnosis/Cure:

- Same diagnosis/cure for the host server described above holds true here.
- Speed delivered may vary depending on the time of day you are using the server.
- Demand on servers can be very high at peak times or during special events.

3. Internet Routers

The data sent to your computer from a server typically bounces through a dozen or so routers. Their purpose is to direct data from one point to another on the Internet. Routers, or the connections between them, can become misconfigured or overloaded by high demand.

Diagnosis/Cure:

- Even if a problem is identified, there's not much we can do, because it is up to the company who owns that router to resolve the problem.

4. Ad-ware or Spyware

If your computer is infected with "ad-ware" or "spyware" you'll likely see reduced computer performance and a constant stream of pop-up ads. This will likely cause everything on your computer to work slower.

- **Diagnosis/Cure:**
Several software companies provide removal software, which may assist you. These resources below may also prove useful:
- [McAfee Security Software](#) is available to Boycom customers. Get Antivirus protection, Anti-Spam, Parental Controls and Firewall protection. [Download McAfee Security Software](#)
- Ad-Aware from Lavasoft* available at www.lavasoftusa.com. Ad-Aware scans and cleans your computer for known data mining, advertising and tracking components.
- Spybot Search & Destroy from PepiMK Software* available at www.safer-networking.org. Spybot Search & Destroy can detect and remove many types of spyware from your computer.

* Please note that Boycom Cable does not recommend or endorse the use of these products and/or websites. There are many other products and services available on the Internet which provides similar removal tools.

5. Web Browser

A corrupted or poorly configured web browser is one of the most common bottlenecks for fast web browsing.

Diagnosis/Cure:

- Run the "auto-repair" feature of Internet Explorer.
- Upgrade to a newer version of your browser.

6. Your TCP/IP Configuration

Installation software provided by dial-up Internet providers can change the default TCP/IP settings on your computer in an attempt to provide better performance. These changes usually cause poorer performance with high-speed Internet services. Macintosh users don't experience this particular problem.

Diagnosis/Cure:

- Windows users can run one of several "registry scripts" to reset the TCP/IP configuration to default values.
- Your Internet service provider's broadband software should contain such a registry fix.

7. Your Computer Hardware

The speed of the processor, hard drive, network card, graphics accelerator, even the amount of RAM, all impact the speed your computer can process Internet data.

Diagnosis/Cure:

- Upgrading your RAM is one of the easiest, least expensive ways to boost speed.
- In general, older computers will limit the speed you receive with your Boycom Cable modem connection.

Here is a good way to determine whether or not your computer is at fault:

Find a friend who is receiving good speed with their Boycom Cable Internet connection and borrow his or her laptop. Connect it to your modem. If the speed problem doesn't manifest itself, it could be your computer.

8. Your Operating System

With extensive use, any computer operating system can become corrupted, inefficient or misconfigured, which will affect the speed.

Diagnosis/Cure:

- Upgrading to a major new release of your operating system may help.
- Reinstall your operating system. If you're unsure how to do this, call your computer manufacturer or work with a qualified area consultant.

9. Your Home Networking Device

A home networking device, or router, routes traffic between your cable modem and your computer(s). Routers that do not use the 100baseT Ethernet Standard and routers with outdated software could slow your connection.

Diagnosis/Cure:

- Unplug the Ethernet cables from your router and connect your computer directly to the cable modem.
- Reboot your computer and then recheck your speeds.
- If your speeds have increased, your home networking device could be the problem.
- In some cases you may just need to update the firmware/software on the device.
- Or you may need to remove or replace the home networking device.

Please note that Boycom Cable does not recommend, endorse or provide support for non-Boycom Cable home networking devices. **Boycom Home Wi-Fi** is the only recommended and supported home networking method.

10. Boycom Cable Routers

In addition to passing through routers on the public Internet, information received also passes through between six and twelve routers maintained by Boycom Cable. It is possible for them to become misconfigured or overloaded, but it's more common for routine upgrades or maintenance to these routers to be at fault.

Diagnosis/Cure:

- Our automated monitoring tools or Boycom Cable advanced users versed in network troubleshooting would usually report a problem before it was noticed by most subscribers.

11. Your Cable Modem's Signal

If your Boycom Cable modem signal delivered to your cable modem is too strong, too weak or too noisy, it can cause your modem to slow down or stop working entirely. Adding a signal splitter to your cable line; a nick in the cable line running to your house; or changes to the cable system in your neighborhood could also slow your cable signal.

Diagnosis/Cure:

- Remove any cable splitters you may have added to the cable line leading to your cable modem.
- Contact Boycom Cable to see if your cable signal is out of spec.
- If it looks like you are experiencing a problem with your cable signal, we'll schedule a visit with one of our technicians to troubleshoot the problem.

Contact us:

573-686-9101 or 800-890-6620 Monday-Friday 8:00am-5:00pm

573-686-3218 or 800-935-0255 After Business Hours

Email: customer_service@boycomonline.com

24/7 Internet Technical Support: 866-366-1874