



No matter the type of game you play, be it an epic role-playing title, a city builder, a tactical battle simulator, or a global strategy game, a faster, more reliable internet connection can make all the difference. When you don't have to worry about your connection dropping, you can focus on coming out on top against your competition. And the advantages of faster internet for gaming extend well beyond the technical aspects.

Better internet means connecting and communicating with fellow players (whether you're playing on a team or against them). And if you're a streamer, you can be confident you'll stay connected on platforms like Discord, Twitch, or YouTube.

Using the FAST, RELIABLE fiber Internet delivered to you by MCG, gamers can be confident their Internet will keep up with their game—and create a fantastic experience!

But how exactly does fiber Internet improve gaming? And why does fiber's technological power give gamers the edge they need to beat their opponents and fellow players? Can fiber make a difference in the results and maybe even "up your game?"

We'll answer these questions and explain why fiber surpasses other kinds of Internet for a superior gaming experience.

# WHAT FIBER INTERNET IS AND WHY IT'S SO MUCH FASTER THAN CABLE

First, let's briefly discuss fiber Internet and compare it to traditional "cable Internet."

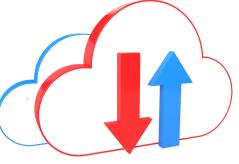
Fiber Internet is delivered by fiber-optic cables consisting of skinny strings of glass that use light to transmit internet data. Indeed, fiber's speed comes close to the speed of light, easily surpassing cable Internet speeds.

Cable Internet, a once-great technology (roughly two decades ago now), uses standard coaxial cables composed of copper wiring. Unfortunately, copper wires cannot handle or transmit the same amount of data as quickly as fiber's cutting-edge materials.

Simply put, cable can't keep pace with fiber's data transmission through light or fiber's consistently higher speeds.



# FASTER DOWNLOAD AND UPLOAD SPEEDS



The most basic and arguably essential part of any Internet technology is its download and upload speed capabilities.

Download speeds clock the time it takes to transmit data, files, and other information from an online server to your device. Conversely, upload speeds refer to how long your device takes to share data, files, and additional information to an online server. These speeds are fundamental to any Internet user. However, they're especially vital to gamers, whose every reaction and decision is made in milliseconds—and often determine whether you win or lose!

Higher download and upload speeds make for a far smoother, less jittery, more stable, and more responsive gaming experience—in other words, the kind of Internet quality that may give you an edge against fellow competitors. As a result, the faster your download and upload speeds are, the better you can game.

Faster speeds get you into games much quicker, especially after an update is released. With faster download speeds, you can be among the first into the updated game—and, if your play is savvy enough, among the first victors to achieve awards and recognition—and all the bragging rights you've justly earned!

### **HIGHER BANDWIDTH**

While faster downloading and uploading speeds are essential, they are almost useless without greater bandwidth capacity. In simplest terms, bandwidth is any particular Internet connection's maximum capacity.

Copper-based wires in basic coaxial cords used for cable Internet are limited. Cable's older technology cannot handle too much Internet data at any moment; thus, its bandwidth is lower than fiber's. This leads to more frequent freezes and delays—often in the middle of a gaming session—and the crashes and drop-offs dreaded by gamers everywhere.

Fiber Internet bandwidth is substantially higher than traditional cable. Even in larger households with several simultaneous Internet users, fiber's bandwidth shines.

So, the higher the bandwidth, the more data can be sent to and from your device for superior gaming performance—with enough bandwidth remaining to stream your games with friends.



## **LOW PACKET LOSS**

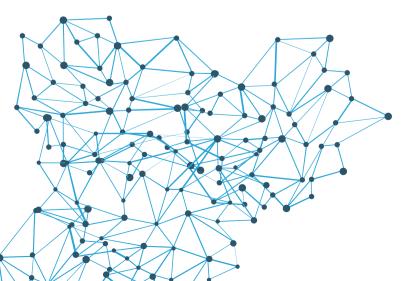
One of the most frustrating technical snafus gamers experience relates to packet loss. A "packet" is a tiny collection of data transmitted over a network between an online server and your device. Packets are critical to any Internet activity, from something as simple as sending an email to posting and viewing videos and gaming. But with some forms of Internet, these small data units don't arrive at their destination, causing maddening slow-downs, freeze-ups, and even crashes.

Packet loss can also impact other aspects of gaming, including hearing your friends' voices —or even your own—sound like a robot while you're playing on Discord! Packet loss (and low bandwidth) weakens Discord's connection causing this distracting and embarrassing (if sometimes hilarious) side effect. Because fiber transmits data at nearly the speed of light, it can handle large swaths of packets (and data) much more efficiently. As a result, packet loss is reduced and keeps you on your game while maintaining voice quality.

#### **LOW JITTER**

Just as crucial as receiving all of your data and files through packets is ensuring that the data hits your devices in the correct order. Too often, with older forms of Internet technology like cable, the data that your devices need to operate—and you need to game—arrives jumbled, a problem known in the industry as "jitter."

Fiber's superior capacity to transmit data at a near-light speed reduces jitter, especially compared to cable. Low jitter means that your data arrives correctly and in the proper order, creating a more precise, cleaner, smoother, and more reliable Internet connection—and a much better gaming experience that won't hold you back.





### **LOW LATENCY**

Finally—and to many gamers, the most crucial distinction—fiber Internet ensures low latency. Latency is the time between a "request" sent from your gaming device to the game's online server and then returned from that server to your device. Usually measured by the millisecond, the lower the lag, the shorter—and the better—the response time. So, latency is your Internet connection's response time for processing requests and delivering data back and forth.

Low latency means that your device and the game's server better capture your agility, quick decision-making, and choices that can benefit gaming outcomes. In addition, fiber's inherently low latency means you can enjoy gaming online without nearly as much lag and stutter that too often plague online games.

Fiber's advanced technology can significantly improve your gaming experience—and maybe even give you the competitive edge you've been looking for against your friends!

It's just one of the many ways that MCG keeps you connected and helps you stay ahead of the game.