LUMEN®

Fiber vs. Cable: What's best for your business?



From reaching customers to collaborating with partners to hosting virtual meetings, the performance, bandwidth, and reliability of your Internet connection have a defining impact on business. The Internet should be something employees don't even think about—it just works.

Understanding the differences between fiber vs. cable service can help you make the best decision for your company's Internet.

Symmetrical bandwidth increases the speed of business.

With cable, it takes significantly longer to upload a file than to download. Why? Most cable Internet connections use **asymmetrical bandwidth**, in which data transmits much more quickly in one direction than the other.



Fiber

Up to **1 Gbps** downloads, and up to **1 Gbps** uploads

1 Gbps 50 Mbps

Cable

Up to **1 Gbps** downloads, and up to **50 Mbps** uploads

Why?

With symmetrical bandwidth, fiber delivers the same upload AND download speeds-making it the superior choice to power critical business applications, back up data libraries, access data-heavy cloud-based applications, and more.

Fiber goes the distance and then some.

Signals transmitted via fiber suffer far less degradation over distance than those transmitted via physical cables—which greatly improves the signal speed, reliability, and quality.

Fiber

Signals transmitted over fiber start to degrade after **60 miles**² or halfway from San Diego to Los Angeles.

Cable

Signals transmitted over cable start to degrade after **340 feet**¹ or the distance from your cubicle to the breakroom.

Why?

Because with cable connections, data travels across coaxial copper originally intended to carry television signals. Fiber connections transmit data through bursts of light across silica filament thinner than a strand of hair.

An unreliable network is bad for business.

Network reliability can be the difference between a satisfied customer and a very dissatisfied customer.

It can determine whether you have a successful virtual meeting or a waste of time. Worst of all, an unreliable network can cost your business money—lots of money.

On average:

Cost of downtime for a critical application per hour³

\$500K-\$1M per hour

Cost of downtime for a critical application per hour³

\$100K per hour

Total annual cost of unplanned application downtime³:

\$1.25B - \$2.5B

Fiber is more reliable than cable because:

Copper cable is more fragile than fiber.⁴



Lightning doesn't affect fiber.

Given the high stakes of business communications, are you willing to risk your company's data or reputation?

Why Lumen[®] Fiber+ Internet?

Lumen Fiber+ Internet gives SMBs the ability to customize their Internet service today and be ready to easily expand as their needs grow. With Lumen Fiber+ Internet, you can save on the high cost of downtime, increase productivity, and return to focusing on your business.

See how Lumen Fiber+ Internet solutions can shed new light on your business' potential.

gore.com/resources/tech-note-understanding-cable-stress-and-failure-high-flex-applications



Sources:

¹ Linus Tech Tips, June 25, 2017 linustechtips.com/main/topic/798451-internet-slow-down-from-length-of-cable/ ² Fiber Optic Internet in the United States, Broadband Now, 2018. broadbandnow.com/Fiber

³ Steven Wastie, "IDC Survey: Downtime Costs Large Companies Billions," DevOps Digest, February 19, 2015.

devopsdigest.com/idc-survey-appdynamics-devops-application-performance ⁴ "Tech Note: Understanding Cable Stress and Failure in High Flex Applications," Gore Creative Technologies Worldwide.