

Why Fiber?

Is your business among the 93% of organizations currently using cloud services, such as Salesforce or Amazon Web Services?

Has your business switched to Voice over IP phone services?

How much data can your business afford to lose?

The answers to these questions are critical.

Decisions about latency, symmetry and replication impact your organization and company-wide productivity as much as speed and bandwidth.

See for yourself why fiber is the right choice.



Fiber is the new standard for business

Proving once again that change is the only constant, businesses today are relying on their data connections more than ever before. This data dependence, if you will, emphasizes why fiber is now the standard for business.

First, it is important to note that companies are changing how they access and store their data. According to a survey of enterprise decision-makers, 38% are building private clouds, 32% are procuring public cloud services and the rest plan to implement some form of cloud technology.

Specifically, nearly 60% are adopting a hybrid cloud model, which uses a combination of on-premises, private cloud and third-party, public cloud services with coordination between the two platforms.

Due in part to the adoption of the cloud, today's professionals are no longer passive recipients of information. Businesses are generating more content with cloud-based applications like Salesforce, Dropbox and a host of other products.

Research shows that 93% of organizations are using cloud services currently. These include Software-as-a-Service, such as Salesforce, Dropbox and DocuSign; Infrastructure-as-a-Service, such as Amazon Web Services and Microsoft Azure; and Platform-as-a-Service, such as Google App Engine.

As companies move forward with these "adapt or die" technologies, businesses also need to fully understand the options available to power their new normal. Unequivocally, a fiber network rises to the top as it can optimize each of these services.

Fiber, which is stronger than copper, is essentially light over glass. This makes it impervious to electromagnetic and radio frequency interference as well as inclement weather conditions that can damage or stall data transmission via copper cabling, which typically has been in place for a century.

Fiber now is the backbone upon which your business' infrastructure should be built.

Notably, business internet traffic in the U.S. in 2021 is expected to reach 11 Exabytes per month, the equivalent of 4 million DVDs an hour. According to research, this is an increase of more than three times the business internet traffic of 2016.

This figure is not surprising given that businesses are realizing the value of near-time or real-time replication, which requires a large amount of bandwidth and a fiber connection for optimal performance.

From uploading and downloading large files without disruption to crisper voice quality for VoIP users and even improved collaboration among employees, a fiber network delivers the criteria that businesses demand to compete and thrive within this changing landscape.

Reliability Latency **APPS 4 MILLISECOND LATENCY** 100 MILLISECOND LATENCY COAX-CABLE=DSL **FIBER** COMPANY B COMPANY A WORLD WIDE WEB IPTV • GAMING • WEB BROWSING **NETFLIX**

While service providers often talk about speed, latency is the most important element of a business' data connection.

By its simplest definition, latency is a delay that occurs while processing data over an online connection.

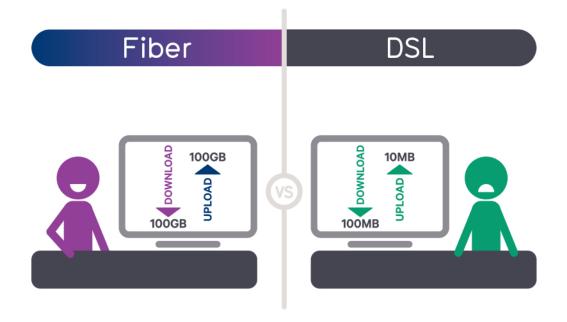
Just 150 milliseconds of latency — a delay of less than 2 tenths of second — can result in poor network performance. In addition, jitter is any variation in latency regarding the distribution of data on a network, including packet loss and congestion.

A fiber connection eliminates many of the latency issues users experience with a copper cable infrastructure.

In terms of reliability, fiber is the optimal choice as well. Because fiber strands are made of plastic or glass instead of metal, a fiber network offers increased reliability, a reduced chance of interference or deterioration, and the ability to transfer more data.

Moreover, fiber is not only the reliable choice for today; it is capable of scaling as your business grows. Fiber can typically be put in place in preparation for growth needs up to 20 years into the future, offering a dependable connection for years to come.

Symmetry Speed Bandwidth



The symmetry, speed and bandwidth of your connection function jointly to deliver an ideal user experience.

While traditional networks offer high-speed connections, cable and DSL are typically asymmetrical and deliver uneven upload and download speeds — with upload speeds being a mere fraction of the download speeds.

However, upload speeds are becoming increasingly critical to business operations as more companies implement cloud-based services and applications.

"Symmetry," when used in relation to connectivity, refers to data speeds that are the same in both directions.

Because fiber is symmetrical in nature, it provides users the same bandwidth for both downloading and uploading — eliminating the inconsistencies that come with the competition.

Fiber-based networks also are more robust than traditional broadband networks. While cable has a maximum speed of hundreds of Megabits per second, high-speed fiber networks can reach more than 100 Gigabits per second — equivalent to 100,000 Mbps.

Fiber offers users a bandwidth pipe with a high capacity for internet traffic, data transfer and more. When deadlines are looming, fiber customers can be confident uploading large files or transferring data rather than contend with pixelated videos and dropped calls.

