



SIMPLIFYING TECH
FOR BUSINESSES SINCE 1998

FIBER INTERNET IS
ESSENTIAL TO YOUR
FUTURE SUCCESS

Xpert
TECHNOLOGIES

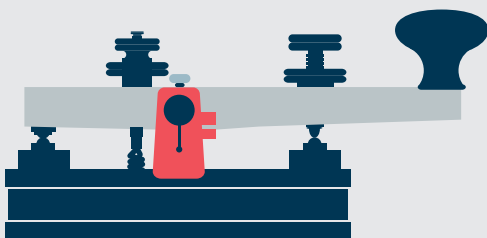
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You've probably heard quite a bit by now about how fiber internet can increase your internet speed and stability. Getting to a point where fiber internet is now widely available to consumers took decades of experimentation and infrastructure development, but now your business is in the perfect position to reap the rewards.

CABLE COMMUNICATIONS: A BRIEF HISTORY

Fiber internet relies on large networks of subterranean and submarine fiber optic cable. As cities expand, this cable is often installed alongside other infrastructural essentials like water pipes and below ground power lines. This is why fiber internet access is often limited in older areas.

Service providers didn't just start laying cable one day because they believed in the potential of fiber internet, however. The origins of modern day fiber go back to the mid-1800s, when Samuel Morse sent the first long-distance telegraph from Washington, D.C. to Baltimore. A communications explosion followed soon after, and over the next decade telegraph lines blanketed the east coast. Most early telegraph lines were mounted on poles; subterranean cabling came later on.



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Success with telegraph lines set an example that other communications technologies have followed for more than 100 years. As fiber optic cable came into play, it was installed in much the same way as telegraph cables 150 years ago. In a relatively short time, companies have built a massive global fiber infrastructure composed of hundreds of thousands of miles of subterranean and submarine cable. For years, only large companies and the military used this huge network of “dark fiber”, but in recent years it's become available for use by small businesses and individuals. This [incredible map](#) shows all known submarine cable as of 2017.

So how does fiber internet work in application, and how can it benefit your business?

BENEFITS OF FIBER INTERNET

Fiber optic cable is about more than just speed. We assembled a list of our top ten favorite benefits of fiber internet, all of which are available to your business.

1. INCREDIBLE STABILITY

Fiber internet has plenty of advantages over its conventional counterparts, but perhaps the most definitive difference is the stability of a fiber connection. If your business works with a different internet service provider (ISP), there's a good chance that your connection is inconsistent. If you use conventional coaxial cable to connect to the web, your signal likely degrades significantly and experiences noticeable latency.

This can have disastrous results for your internet usage. It slows down and interrupts your work within the cloud and it disrupts your communications, especially if you rely on video conferencing or digital phone systems.

Coaxial cabling is also somewhat vulnerable to electromagnetic interference. You may experience sporadic downtime due to nothing more than a bout of inclement weather.

This is where fiber internet really shines. Fiber optic cable sends data through pulses of light, which travel along the length of the cable through glass and plastic fiber. It's an incredibly efficient and stable means of transmitting information at nearly the speed of light. Fiber connections don't experience the levels of latency common in traditional connections, meaning you'll deal with less packet loss, less downtime, and greater production.

Your business may save some money in the short term by purchasing its internet service from a national ISP on an old-fashioned connection, but in the long run the cumulative downtime caused by a faulty internet connection can cost you. Even if you purchase low-end fiber internet, a

larger ISP may throttle your connection to maintain their network. Fiber internet through a local ISP is the only real solution if your business is reliant on its connectivity.

2. UNMATCHED SPEED

It's not all about speed, but that might be the one you notice first when you plug into your new network. Fiber internet by Xpert can reach up to 10 gigabit download speeds.

Yeah, that's fast.

Lighting-fast internet can significantly reduce wasted time in your business, decreasing downtime times and increasing morale. Everything moves more quickly when you're not waiting around for a site to load.

Think of bandwidth as the number of lanes in a highway. A four-lane road moving at 40 miles per hour might move a lot of traffic, but too much volume or a single wreck can turn it into a mess. There are two obvious solutions to this problem: improve the road so that traffic can move more quickly, or widen the road so that traffic passes at the same speed, but has more lanes in which to do so.

"LIGHTING-FAST INTERNET CAN SIGNIFICANTLY REDUCE WASTED TIME IN YOUR BUSINESS, DECREASING DOWNTIME TIMES AND INCREASING MORALE. EVERYTHING MOVES MORE QUICKLY WHEN YOU'RE NOT WAITING AROUND FOR A SITE TO LOAD."

Fiber, in most cases, seeks to do the former. With fiber internet, you don't necessarily need more broadband because information is being transmitted much more quickly even on a similar amount of broadband. The road has the same number of lanes, but traffic is moving twice as fast and there are fewer wrecks.



THE EASE OF SWITCHING TO FIBER INTERNET

Fiber internet installation is simple, but not universally available. Due to a fiber infrastructure that is still somewhat limited, not all homes and businesses are fiber-capable. If your service provider does offer fiber to your property, installation isn't terribly intensive - technicians will have to run a cable to your property from a nearby fiber line, at which point it can easily be plugged in to your existing network. The complexity of installation can vary based on the size of your property and what kind of structure your business is housed in, however.

WHY XCONNECT IS FOR YOU

xConnect by Xpert Technologies is our specialized fiber internet offering and a key part of our larger [xComplete package](#). Our team of technicians is experienced at working with fiber and giving businesses the best possible connectivity. As a technology provider and local internet service provider, Xpert Technologies is committed to helping the businesses of Greater Detroit maximize their potential. If you think fiber internet could benefit your business and you want to learn more about its availability and application, [get in touch today](#).

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