



## The Digital Divide and High-Speed Internet

High speed Internet is critical for doing business, learning at home, shopping and streaming. In the year 2000, a high speed connection was 1/0.2 Mbps (download/upload). Today, a 100/50 Mbps connection will adequately allow surfing, streaming and gaming. Projections for the next decade anticipate two Gigabit upload and download speed requirements by 2030.

High speed broadband is easily accessible in cities and many suburban areas. But as population decreases, so does broadband accessibility. Throughout the Northeast, many towns lack access to reliable high-speed Internet. People living, working, and learning in small, rural communities are burdened by dismal service, sluggish speeds, and oversubscribed ISPs.

Even in highly connected states, residents and businesses struggle with DSL and underperforming cable connections. For example, Connecticut is widely considered to be nearly 100% connected. Yet thousands of people in more than 100 towns have no wired connection capable of the FCC's minimum 25 Mbps suggested speed. During the pandemic, consumer demand for bandwidth skyrocketed, revealing that communication infrastructures in small towns and rural areas are painfully out-of-date. This is the "digital divide."

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## Why Fiber?

There are several high-speed broadband alternatives to close this divide. Of them, fiber is the fastest and most adaptable. Full fiber connections currently provide speeds of one gigabit per second. With future upgrades, fiber speeds could reach one terabit per second or 1,000 gigabits per second. Increasing speeds only requires changing the hardware at the ends of the fiber, not the fiber itself. No other technology is capable of these speeds.

Last-mile fiber broadband networks bring fiber- to-the-home (FTTH) or fiber-to-the-premises (FTTP) and offer a solution for communities seeking to connect to reliable high-speed Internet. Fiber connections deliver reliability, rapid upload/download speeds, strong signals, improved security, increased productivity, and global connectivity.

## The Solution: Municipally-Owned Fiber Networks

Throughout the Northeast, many towns are closing the digital divide by investing in and building FTTP networks, owning this revenue-generating infrastructure. Municipality-owned passive optical fiber networks are the most reliable, cost-effective solution to deliver gigabit-speed services and ensure an infrastructure that can support future technology demands.

With Sertex Broadband fiber gigabit networks, remote small towns can compete digitally with big cities and affluent suburbs. By investing in publicly-owned fiber networks, communities can control their telecommunications infrastructure and open the doors for growth.