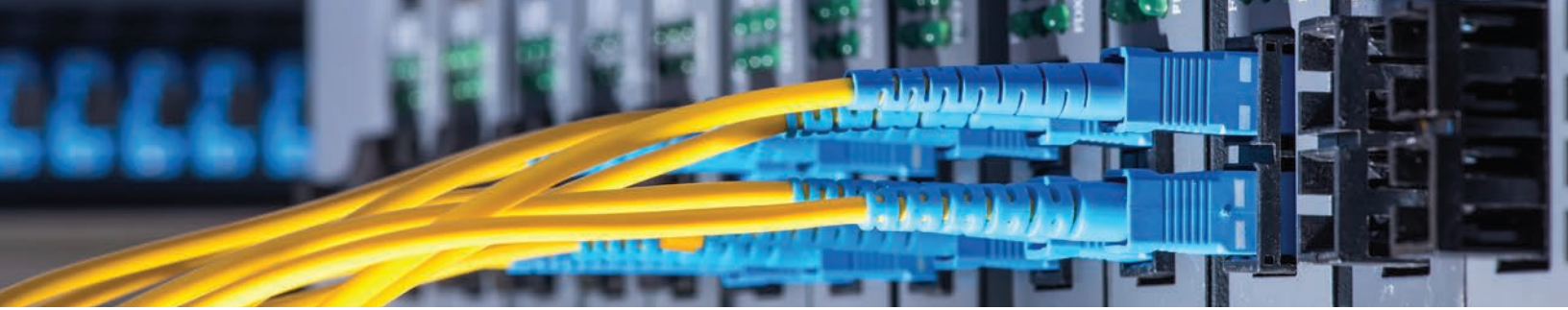




# CONNECT YOUR NETWORK

Accelerate Multiple Location Connectivity  
with Ethernet Private Line Solutions





**In today's competitive business environment, speed is the name of the game.** And rapid, reliable connectivity has become an operational necessity. But for many businesses with multiple locations, while their data needs have skyrocketed, their bandwidth hasn't kept up.

This challenge has particularly impacted organizations such as healthcare facilities, financial institutions, retail chains and government agencies that need fast, private connections between multiple locations to keep pace with growing data contained in routine exchanges of large, critical files.

These organizations need a solution that delivers the reliability and privacy of a T1 line between their locations, but with the bandwidth that modern businesses demand at a cost that fits their budget. With Ethernet Private Line, businesses can finally get the speed, reliability and privacy they need to maximize branch office collaboration, efficiency and productivity.

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## MULTIPLE LOCATIONS, MULTIPLE CHALLENGES

**Whether exchanging emails, large files, collaborating over voice and video, or accessing company, customer, or partner information in the cloud, companies today find that they need more bandwidth and more uptime than ever before. But their current Internet connectivity can't keep up with the demand.**

**Organizations from many industry verticals experience a number of challenges with the Internet access technologies they use today.**

- **Slow performance** – For many years, T1 lines were the gold standard of Internet connectivity, delivering reliability and acceptable bandwidth. Today, the 1.544 Mbps of a T1 line is easily overwhelmed with modern voice, video and data applications.
- **Expensive equipment and maintenance** – In addition to being affected by environmental conditions and natural disasters, microwave equipment and towers are expensive to purchase, deploy and maintain.
- **Unpredictable reliability** – Most common Internet solutions, such as DSL from the phone company, promise higher bandwidth and fast speeds, but because that bandwidth is shared among customers and dependent upon location, the speed may not be consistent at peak times, leading to lost productivity and frustration. Microwave solutions can be affected by line-of-sight and atmospheric conditions, and experience degradation over long distances.
- **Poor scalability** – Some companies try to address bandwidth problems by bonding multiple T1s together to build the bandwidth they need with T1 reliability. However, adding T1 lines doesn't scale well from a cost and time perspective. Instead, doubling the number of T1 lines at a business just doubles the cost.



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## T1 BEHIND THE TIMES

Traditionally, two types of technologies have been used to connect multiple locations together, and these technologies are straining to supply the bandwidth and performance that today's businesses need. One of the most common approaches to joining multiple locations has been to use T1 lines with site-to-site VPNs. While T1 lines often provide good reliability, with only 1.544 Mbps of bandwidth available, the monthly cost per megabit of bandwidth is very high when compared with other technologies.

In addition, the low bandwidth of T1 lines results in productivity losses for organizations. Slow access to critical business applications and information slows the business down, costing money and staff productivity. Some businesses try to overcome the bandwidth limitations by bonding multiple T1s together to increase performance, but adding T1s adds a great deal of cost without adding much bandwidth.

Using site-to-site VPNs with T1 lines has its own troubles. They can be complex to configure, difficult to maintain and monitor, and are reliant upon having compatible equipment at each end of the VPN. While T1s were once the gold standard of site-to-site connectivity, organizations today find that they don't deliver the value or performance for today's business demands.

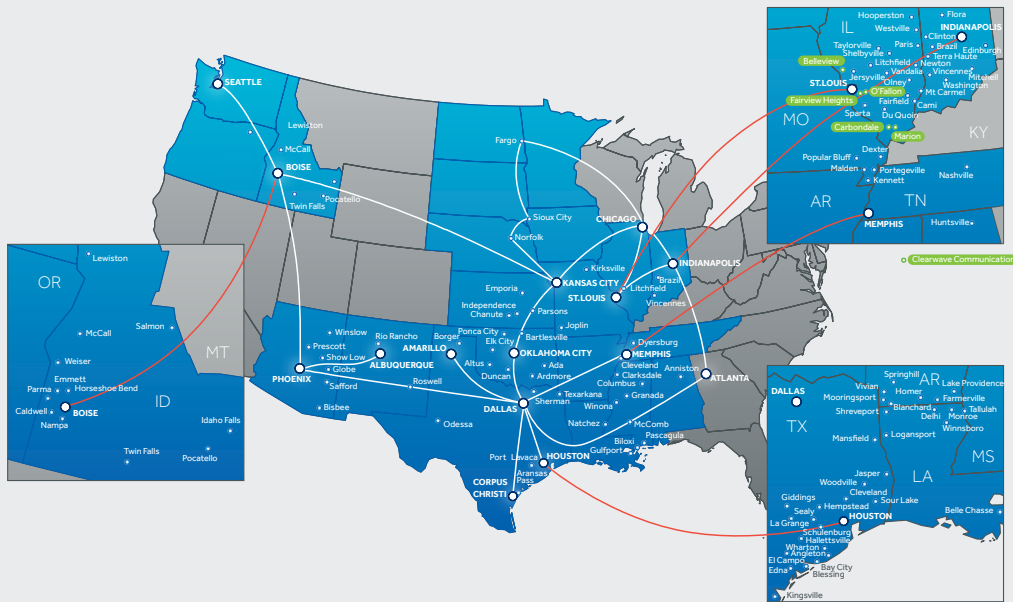
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## MICROWAVE HAS ITS OWN DRAWBACKS





Where T1 lines have been unavailable or too slow to meet business needs, some organizations have turned to microwave Ethernet to provide connectivity between multiple locations. While microwave technology can provide better bandwidth than T1 lines, it has its own drawbacks.

Microwave equipment and towers can be very expensive to install, and maintenance is costly as well. In addition, line-of-sight and atmospheric conditions can affect the quality of the connection. Moreover, as microwave equipment is added, each hop adds extra latency, making reliability a problem, especially for latency sensitive applications like voice and video.

With the inherent limitation of both T1 and microwave technologies, organizations find themselves in a bind as to how to connect multiple locations efficiently and effectively. Data is growing at an ever increasing rate, businesses are moving to cloud, and high performance connectivity is no longer a luxury for businesses that want to remain competitive. They need a solution that will give them cost effective, reliable, and scalable bandwidth to meet their demands today and for the future.



## SPARKLIGHT FIBER BACKBONE NETWORK

-  National Fiber Backbone
-  Internet POPs
-  Regional Fiber
-  Sparklight Business Service Area

## GET MORE WITH AN ETHERNET PRIVATE LINE

No other solution can deliver the bandwidth, reliability, scalability and low cost of fiber. Ethernet Private Line (EPL) leverages Sparklight’s fiber network to connect all locations, from across town to across the country, with the bandwidth companies need to meet the demands of business.

Ethernet Private Line solutions provide business benefits that beat out competing solutions:

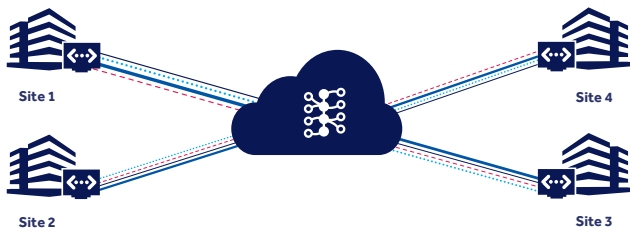
- **Fast, scalable bandwidth** – Deliver bandwidth from 10 Mbps to 10 Gbps, according to the specific needs of each remote location. Scalable in 1 Mbps increments, companies can buy only what they need now, confident that they can grow their network as the business grows.
- **Best cost per megabit** – Because fiber-optic networks can supply a very large amount of bandwidth and scale easily, Ethernet Private Line offers a much lower cost per megabit than competing solutions.
- **High availability and low latency** – With 99.99% uptime and low latency between locations, remote locations can use the network resources they need, when they need them. The low latency of fiber networks delivers the dependability to run critical voice, video, and data applications from any location.
- **Security and transparency** – Sparklight Business private VLANs secure network traffic to ensure that data is visible only to those with appropriate access, and Ethernet Private Line solutions are transparent to the network.

- **Direct Ethernet connection** – Multiple locations are linked by a physical fiber path that delivers a Layer 2 connection to each site. This creates a truly integrated network and eliminates site-to-site VPNs.
- **Continuous performance monitoring** – Our Network Operations Center provides continuous 24/7 performance monitoring of the network to insure that data reaches its destination on time. Continuous performance monitoring means minimal maintenance and administration overhead for IT.
- **Out-of-market connectivity with Ethernet over MPLS** – For organizations with remote offices outside the Sparklight network area, they can still connect them to the network using Ethernet over MPLS.



## ETHERNET PRIVATE LINE

EPL connects your remote locations on a transparent network



*Ethernet Private Line from Sparklight Business easily connects your remote offices. Fiber is brought to each office and connected to the Ethernet network, where the bandwidth to each office can vary based upon business needs. Sparklight's network creates a physical fiber path between each of the sites for reliable, high speed connectivity.*

## CASE STUDY

### Healthcare Organization Eases Bandwidth Pain, Increases Productivity

A healthcare organization with three locations had problems transferring large image files and other medical data in a timely manner. The organization relied on two bonded T1s (3 Mbps) at each site for interoffice connectivity and two bonded T1s (3 Mbps) total Internet connectivity from the main office. However, transferring large files caused performance problems on the network, and productivity problems for doctors and staff. In addition, the organization received separate bills for the T1s at each location, making extra work for the accounting department.

To solve the organization's performance issues, Sparklight Business replaced the T1 lines and VPNs with a 20 Mbps Ethernet Private Line between each location, and a 50 Mbps Direct Internet Access (DIA) connection to the main office. Of the 50 Mbps DIA connection, 10 Mbps was dedicated to each branch office, while 30 Mbps was dedicated to the main office.

The solution delivered faster information transfer between the locations, which resulted in increased productivity for medical images, insurance transactions and other critical information. Sparklight Business also consolidated all services onto a single bill, reducing the burden on the accounting department.



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## BRING REMOTE LOCATION PERFORMANCE INTO THE FUTURE

Businesses today find they need more bandwidth than ever to work effectively with their multiple sites. And these needs will only increase in the future. For healthcare, financial, government, retail and other organizations with multiple locations, slow connectivity speeds reduces efficiency, productivity and collaboration.

Traditional connectivity options like T1 lines and microwave are aging technologies that can't keep up with today's demands. They're unable to deliver the fast, reliable bandwidth that doesn't break the budget or put additional strain on already taxed IT resources. Ethernet Private Line from Sparklight Business leverages our fiber network to connect all locations—and deliver the speed businesses need for today and tomorrow.

Ethernet Private Lines from Sparklight Business deliver the bandwidth and connectivity speed organizations need to thrive

in today's data-driven world. From 10 Mbps to 10 Gbps, they can easily scale bandwidth to fit any need as business grows. And by using dedicated Layer 2 connectivity between each of your offices, the solution eliminates the headache of managing and monitoring site-to-site VPNs.

Sparklight Business gives today's organization a 24/7 performance-monitored transparent connection between all your sites, keeping company data private and delivering peace of mind in a cost effective, reliable fiber solution.

Contact Sparklight Business today to find out how Ethernet Private Line solutions can supercharge your remote office connectivity.

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## WHY CHOOSE Sparklight BUSINESS?

*Sparklight Business uses the most current technologies to deliver fiber-optic services to meet the needs of businesses of all sizes. We leverage our existing infrastructure and equipment to deliver high-quality, highly reliable broadband and networking services your business can depend on. By implementing a customized fiber-optic solution from Sparklight Business, you can take advantage of your business' full potential – utilizing the fastest and most reliable fiber-optic network available today. The more your business relies on connectivity, the more you need Sparklight Business.*