Lumen® Private Connectivity Fabric℠

The trusted network for AI

Facing a rapidly evolving technology landscape, enterprises continue to stretch their network capacity by introducing adaptive applications powered by AI and ML, facilitating data in larger quantities than ever before. Not only does this challenge existing IT stacks to keep up with the demands, but it also introduces new endpoints, leaving the door open for bad actors to infiltrate networks. Enterprises need a network infrastructure that can withstand big data, adapt to machine intelligence models, and support future growth.

Lumen® Private Connectivity Fabric℠ can enhance business agility by providing network resilience that withstands increasing data volumes and applications. Streamlining with custom network architectures allows for higher-speed, more secure connectivity, that supports AI and real-time decision making.

Demand for robust connectivity intensifies as data volumes surge

AI/ML based applications demand network infrastructures capable of processing vast quantities of data with exceptional speed. Unfortunately, conventional network systems often lack the necessary capacity and flexibility needed to fulfill these stringent requirements. More advanced networks are needed to handle high bandwidth, low-latency demands, such as with AI usage.

Multi and hybrid-cloud connectivity

As organizations transition to cloud infrastructures to support this influx of data, the necessity for robust cloud connectivity is escalating. High-performance connectivity becomes critical to provide seamless access to cloud resources and efficient handling of data-driven applications.

Network infrastructures must be able to reliably support the high throughput and low latency required by AI driven applications. Private Connectivity Fabric provides robust and flexible networking solutions, including multi and hybrid-cloud connectivity between third-party and private data centers, to help ensure enterprises can meet data demands.

> **73% of** enterprises are using or plan to use artificial intelligence in customer engagement solutions in the next 12 months."[1]
>
> **Is your network ready?**

Learn how Lumen supports AI driven networking requirements for top cloud providers

1. IDC, IDC Info brief-Empowering Digital Transformation, July 2024

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Private Connectivity Solutions

Ethernet On-Demand
- Quickly access critical business resources by establishing secure, private Network-as-a-Service connections between locations, data centers and cloud providers— and pay by the hour for what you use.

Internet On-Demand
- Rapidly deploy dedicated internet connectivity up to 10 Gbps over multi-service ports for fast, reliable Networking-as-a-Service by the hour, without paying standard monthly rates, regardless of how you use the service.

Wavelengths
- Pre-lit wave services provide reliable, cost-effective 10Gbps - 400Gbps networking without fiber ownership complexities.

Dark Fiber
- Lumen® Dark Fiber solutions help you stay ahead of bandwidth demands by giving you all the benefits of network ownership without having to build the network yourself.

Dedicated Internet Access
- Scale your business to reach global customers and vendors with high-performance, dedicated internet geared specifically for enterprise apps and needs.

Implementation Management Services
- Simplify your large, multi-technology implementations and get the skilled support to empower business success using our certified cloud and network project managers.

The Backbone of the AI Economy

Designed to be #1 provider of AI-ready infrastructure

-25% optical loss vs. competition*

≤5ms of latency at the edge designed to cover up to 97% of U.S. business demand

60% more capacity vs. legacy fiber

*~25% less fiber optic loss per km; less loss translates to less frequent need for fiber optic signal regeneration, decreasing equipment costs; figure is based on a comparison to vintage 2000 fiber (decrease from .22 db/km loss to .17 db/km).

Why Lumen?

Lumen stands as a trustworthy partner for your Private Connectivity Fabric needs, offering a future-ready infrastructure that scales with the pace of digital innovation. With robust security measures and comprehensive operational support, including space, power, and network management by national teams, Lumen helps ensure your business is well-prepared for tomorrow's challenges. Opt for Lumen's nationwide deployment to mitigate risks and avoid the uncertainties of self-build projects, while benefiting from rapid deployment that helps accelerate your time to market. Our holistic approach extends beyond Private Connectivity Fabric, delivering a tailored, all-encompassing suite of network services for large enterprises.

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