

# Lumen® Wavelength Services

High-Capacity connectivity for AI and next-gen apps. Designed to be the #1 provider of AI-ready network infrastructure.

With AI, the Internet of things (IoT) and cloud computing driving digital transformation, enterprise and government organizations need to evolve their networks.

Next generation network architectures must be flexible and scalable to address not only today's requirements but also increasing AI use and evolving dynamic environments – connecting employees to information, applications to each other, businesses to suppliers and data, and machines to machines.

To keep up with the pace of change, enterprises need networks that can quickly deliver high-performance applications, fuel AI and ML, and connect data across clouds and datacenters – with enhanced reliability, scalability, and accelerated deployment.

## Built for AI, cloud, and scale

With up to 400G connectivity speeds for Wavelength services and expansive route diversity, data center, and cloud connectivity, Lumen is the trusted network for AI.

## High performance

Deliver fast, high-availability services and applications leveraging high bandwidth, low-latency wavelengths that power AI, ML, and next-gen apps.

## Operational efficiency and reduced costs

Resiliency to handle more bandwidth with fewer network elements. RapidRoutes<sup>SM</sup> reduce operational drag by cutting quoting and delivery timelines, while custom designs provide flexibility for specialized environments without sacrificing performance or economics.



"Digital economy leaders need 100G and 400G wavelength connectivity to help bolster the performance of the underlying network supporting their digital platform journeys. Lumen's portfolio of wavelength solutions continues to lead the industry in providing innovative, adaptive networks with the necessary global reach, route diversity, and low latency performance needed to enable the seamless distribution of applications, Edge to Core."

- Ian Redpath

Practice Leader Transport Networks, Omdia

## Common use cases

- Multi-site and hybrid cloud connectivity
- Cloud and data centers mirroring for business continuity & disaster recovery
- Rapid access to vast amounts of data with ultra-low latency to make decisions
- Industries such as banking, media, oil & gas, and healthcare & pharma that adopt more effective and nimble data collection and connection strategies

## Features and Specs

### Next-gen networks with AI-powered features

- Ethernet speeds: 10, 100, 400G
- OTU speeds: OTU 2, 2e, 4
- RapidRoutes<sup>SM</sup> provide ready-to-deploy 100G/400G connections on prioritized routes
- Service Diagnostics & Control Portal to run Laser network diagnostics, self-serve network testing, generate reports, and optimize performance
- Topology Viewer to create new wavelength circuits, create paths, calculate best routes, and view latency
- Proactive Notifications to be notified of network issues automatically
- AI-enabled diagnostics that provide forecasting of equipment failures and help to ensure equipment replacement before failure
- SDN enabled - allowing for automated capacity provisioning

## Lumen Network

### Connect your employees, partners, and customers

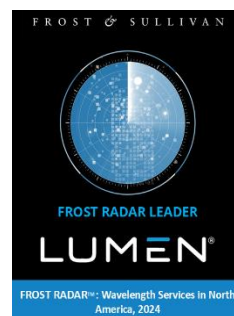
- Largest ultra-low-loss intercity fiber network in North America
- 78,300 Next-Gen 400G-enabled wavelength route miles
- 400+ PoPs pushing further to the metro edge with 10-20 data centers per market
- Extensive low-latency route diversity
- 125+ North America optical cloud on ramps
- 70 North America markets
- 2,200+ global on-net third-party data centers
- ~163,000 global on-net buildings
- ~340,000 global fiber route miles

## Experience

### Simplicity, visibility, and network control

- Transparent, simple quoting
- Streamlined service deployment with an industry-leading 20-Day SLA\* on RapidRoutes<sup>SM</sup>
- Network visibility and control within a simple portal
- AI-driven automated workflows and monitoring, including service quoting, preventative maintenance, and repairs
- Custom routing and transparent network design, including private data networks

## Innovative Leader in Wavelengths



Ranked #1 in  
Wavelength services  
in North America  
**2024 Frost Radar™**

 VERTICAL SYSTEMS GROUP	LEADERBOARD
YEAR-END 2024	U.S. Wavelength Services
RANK	WAVELENGTH PROVIDERS
1	Lumen
2	Zayo
3	Verizon
4	AT&T
5	Crown Castle

#1 U.S. Wavelength Services  
Provider for the **fourth**  
**consecutive time** by  
Vertical Systems Group

## Why Lumen?

Lumen Wavelengths combines North America's largest ultra-low-loss intercity fiber network, cloud and data center connectivity, and AI-driven network management tools and automations for maximum efficiency. RapidRoutes<sup>SM</sup> enable faster time to market, while our experienced Network Architecture Team is your trusted partner for custom network needs.

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\*Based on publicly available SLAs and service installation data for major U.S. wavelength providers, and market share data from the July 2024 Atlantic-ACM North American Business Connectivity Survey. SLAs may vary by provider, location, and contract terms. 20-business-day service installation starts from the date order and order addendum are fully executed and received by Lumen.

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