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Scaling the network AI runs on

How Lumen's network investments are powering the providers behind AI



AI is changing how data moves. Lumen is investing in the network built to move it.

Innovation doesn't wait. From generative AI to real-time analytics, autonomous systems to distributed cloud platforms, the digital world is accelerating at breakneck speed.

But innovation doesn't happen in isolation. It demands infrastructure that's fast, smart, deeply connected, and easy to consume and scale. That's where Lumen comes in.

With **~340,000 route miles**, **20 million+ fiber miles** , and a **global backbone capacity of +350 Tbps**, Lumen operates one of the most deeply connected digital platforms in North America. Our infrastructure isn't just keeping pace with innovation. It powers the network behind providers delivering AI.

> ***"Building the compute capacity required for AI is the largest infrastructure project ever attempted by humanity."***
>
> – John-David Lovelock, Distinguished VP Analyst, Gartner

~340,000
route miles

20 Million+
Fiber miles

Capacity of
350+ Tbps

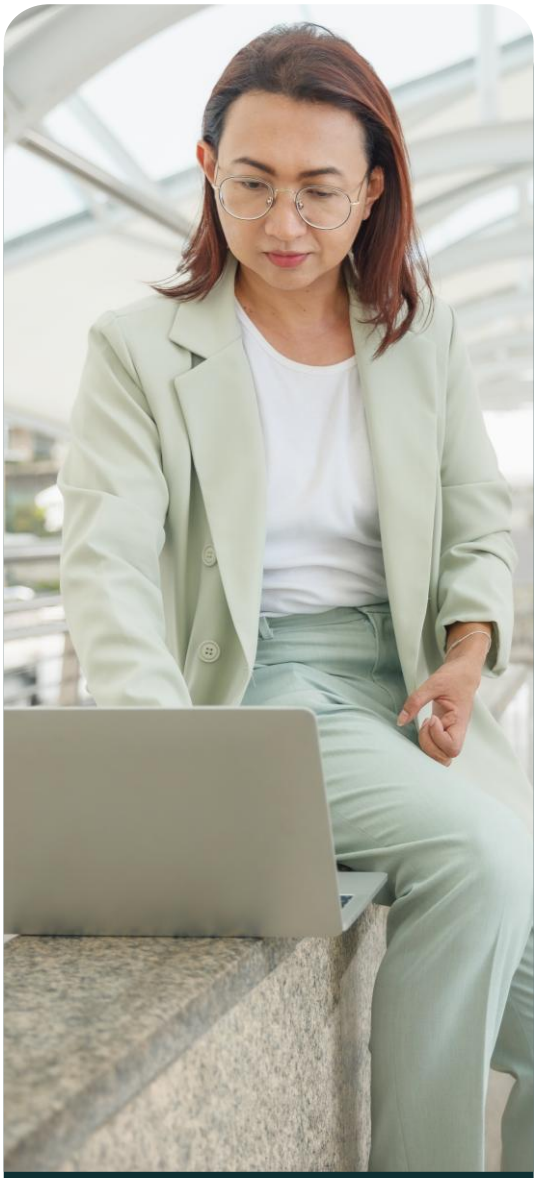


AI has a data movement problem

AI runs on data, but your data doesn't live in one place. It is distributed across clouds, data centers, AI environments, applications, and users. As your AI initiatives scale, three common challenges can emerge:

- **Capacity Constraints**: AI-driven traffic is unpredictable, pushing fixed-capacity network to their limits. **96% of enterprises have at least one network-related performance issue affecting AI workloads**[1]
- **Access to Data and Compute**: AI increasingly spans multiple clouds, data centers, and compute environments. **92% of organizations now use multicloud environments for AI**[2], making it more challenging to connect the places where data, applications, and compute reside
- **Reach and Performance:** AI initiatives depend on moving data quickly and reliably. **40% of IT leaders identify infrastructure constraints as the top barrier to scaling AI initiatives**[1]

AI is not just a compute challenge. It introduces complexity by distributing data and compute across more environments, putting greater pressure on the network to move data reliably and at scale.



The message is clear: Your data lives everywhere and AI is reshaping how that data moves. The infrastructure supporting it matters more than ever.

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[1] *State of AI Infrastructure Report 2026 (Flexential).*
[2] *Quadrant Strategies: Why IT Leaders Are Turning to Next-Gen Networks, October 2025.*

How Lumen is addressing AI's data movement problem

As your AI initiatives grow, your infrastructure must support more data, connect increasingly distributed environments, and deliver consistent performance wherever AI creates value.



Three challenges shaping your AI infrastructure:

01
Capacity at scale

02
Access to compute

03
Reach and performance

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01

Keeping capacity ahead of AI demand

Designed to unlock:

- Faster movement of large datasets between clouds, AI clusters, and data centers
- Predicable capacity for AI training, analytics, and multicloud environments
- Industry leading deployment timelines in as little as 20 days[1]
- A foundation for programmable connectivity

Capacity Without the Wait

AI is driving unprecedented demand for **east-west data movement**, requiring networks capable of moving massive datasets between clouds, data centers, and AI environments at scale.

Lumen has expanded AI-ready connectivity through RapidRoutes, delivering pre-engineered 100G and 400G wavelength connectivity across key cloud, data center, and metro locations.

This investment provides approximately **2 petabytes of capacity across 49 routes**, purpose-built for AI-scale and supporting up **to 2x faster deployment** of complex wavelength services[2]

This creates the high-capacity foundation organizations need to move AI workloads at scale. Lumen Network-as-a-Service complements that foundation with programmable connectivity that can be activated, managed, and scaled as business and workload demands change. Scale bandwidth up to **100 Gbps in minutes** for traffic bursts, then scale down as demand changes, helping reduce overprovisioning.

Backed by one of the most deeply connected networks in the world, Lumen's backbone moves up to **350 terabits per second, with speeds reaching up to 400 Gbps.**



#1 provider

in U.S Wavelength services for the 5th consecutive time[3]



2x faster deployment

for complex wavelengths builds vs. traditional delivery models[2]



50+ major cities

connected by North America's largest ultra-low-loss intercity fiber network

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[1] Industry-leading delivery with 350 qualified sites
[2] Based on Lumen internal data of deployment timelines vs. Lumen traditional delivery models, March 2026.
[3] Vertical Systems Group, U.S Wavelength Services Leaderboard, 2026

Bringing connectivity closer to compute

Designed to unlock:

- More direct, to AI, cloud, and compute
- Faster data movement across clouds and data centers
- Better support for AI training, analytics, and multicloud
- Simpler connectivity where AI is built and scaled

Shorter paths, faster models

As AI workloads grow, performance is no longer about compute alone. The closer data sits to the platforms where it is processed, the faster teams train models, run analytics, and deliver AI experiences.

Lumen is investing in Data Center Enablement, bringing high-capacity connectivity directly into the environments where modern workloads run.

Today, Lumen delivers up to 400G Ethernet and IP services **across 70+ third-party data center locations in 16 markets**, with plans to add **90+ locations across 14 additional markets,** bringing the footprint to **160+ locations** enabled with high-capacity connectivity.

Lumen Network-as-a-Service turns that high-capacity foundation into programmable connectivity. Through options including Lumen® Ethernet Fabric Connect and Lumen® Intelligent Internet, organizations can activate, manage, and **scale private and internet connectivity on demand**. Starting with Lumen Fabric Port, organizations can connect, manage, and scale internet, private, and multicloud connectivity through a single control layer.



160+ third-party data centers enabled

and enhanced with **400G Ethernet & IP** connectivity



2,200+ third-party data centers

connected to Lumen's global network

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Extending connectivity to where business happens

Designed to unlock:

- Faster delivery of data from cloud and data centers to users and apps
- Real-time AI inference, analytics, and customer experiences
- Expanded access to high-capacity Ethernet, IP, and cloud connectivity
- A simpler path to scale distributed operations without new builds

Extend Connectivity Where Business Happens

Moving data across regions is only part of the challenge. It still has to reach applications, users, and edge environments in real time.

Metro Expansion supports **north-south data movement** by bringing capacity closer to where data is consumed. Lumen offers 100G Ethernet and IP across **16 key U.S. metro markets**, expanding to **30+ metro markets** – a stronger foundation for cloud, AI, and digital workloads.

As AI-driven demands evolve, Lumen Network-as-a-Service makes connectivity easy to activate, manage, and scale. With Lumen® Ethernet Fabric Connect and Lumen® Intelligent Internet, organizations can extend connectivity wherever data, applications, and users need it.

With direct fiber access to **~163,000+** buildings and **2,200+ third-party data** centers, Lumen delivers the flexibility and reach businesses need to scale smarter



100G connectivity

being deployed across

30+ major markets



~163,000+ buildings

with direct fiber access



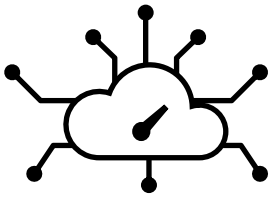
2,200+ third-party data centers

integrated into global network

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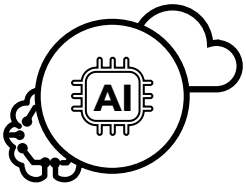
Closing the AI data movement gap

As your AI initiatives scale, your infrastructure must move growing volumes of data, connect increasingly distributed environments, and maintain performance wherever data is needed. Lumen's investments are designed to help address these critical AI data movement challenges.



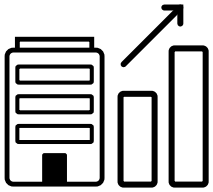
Built to Move More Data, Fast

- **Accelerate AI-ready capacity** with RapidRoutes through ~2PB of capacity across 49 strategic routes built for high-volume data movement
- **Designed to reduce time to network capacity** with deployments up to 2x faster, accelerating AI readiness
- **Support AI- scale east-west data movement** with ~2PB of capacity and scalable connectivity up to 400G



Simplify Connectivity

- **Bring data closer to compute** with up to 400G Ethernet and IP services across 70+ cloud on-ramp ready data centers today
- **Simplify connectivity across distributed environments** with one port, multiple services, and a single control layer for internet, private, and multicloud connectivity.
- **Provision and scale connectivity in minutes** via API or the Lumen Connect portal, while monitoring performance, usage, and costs from a single dashboard



Deliver AI Closer to Users

- **Support emerging AI and digital workloads** through future-ready architecture and ultra-high-count fiber deployments
- **Bring applications and data closer to users** through north-south connectivity that extends from cloud and data centers to the business edge
- **Bring applications and data closer to uses** through connectivity extending across 16 key markets with plans to expand to 30+ metro markets

Why Lumen: Already a leader. Actively investing. Built for what's beyond.

AI runs on data. Backed by the **#1 peered global network**[1] and the **#1 most selected IP network by Fortune 500 companies**[2], Lumen is investing in the infrastructure that keeps it moving.

Why more than 90% of the Fortune 500 run on Lumen.

20M+
U.S intercity fiber miles
Enough fiber to wrap around the moon nearly 3,000 times

99.99%
data delivery rate[3]
Across our network backbone to keep your critical data moving reliably

300K+
network devices backed up daily
Supporting the resilience behind mission-critical connectivity

350+ tbps
global backbone capacity
With connectivity speeds up to 400 Gbps

8 of 10
leading U.S AI infrastructure markets
Connected by 3+ diverse Lumen optical paths

380+
orchestrated workflows
Executing 5M+ automated network actions annually – 10 network actions every minute[4]

Built at scale. Available on demand.

3x NaaS Provider of the Year in North America[5].

Powering the World's Largest AI Builders. Ready to Power Yours.

More than 50%
of the top 10 world's leading hyperscalers
for cloud, AI, and data center connectivity

More than 2/3rd
of the Fortune 50
for mission-critical operations at scale

More than 50%
of the top 10 Neocloud providers
for AI training, inference, and data movement

More than 2/3rd
of the largest U.S. government contractors
keeping data secure, connected, and moving

[1]The AS3356 network. CAIDA, AS Rank, September 2026
[2]Telegeography, IP Networks, October 2025
[3]Based on internal network performance monitoring across the AS3356 backbone showing a 99.9927% data delivery rate.
[4]Based on internal network data: Network Automation & Orchestration Metrics, August 2026
[5] MPLIFY Alliance NaaS Excellence Awards, North America NaaS Service Provider of the Year, 2024, 2025, and 2026.

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Lumen recognized in Gartner Report, AI Vendor Race:

Lumen is the company to beat in enterprise WAN and connectivity services for AI[1]

The Lumen Difference

Physical Network

High-capacity infrastructure built to move data at scale.

Digital Platform

Intelligent automation and on-demand networking capabilities. Provision and scale connectivity in minutes, not weeks.

Connected Ecosystem

Seamless connectivity across clouds, data centers, partners, and platforms.

One network. One platform. One ecosystem built for how AI moves and how organizations connect to it.

[1]Gartner, AI Vendor Race: Lumen Is the Company to Beat in Enterprise WAN and Connectivity Services for AI, Kameron Chao, Susan Welsh de Grimaldo, Karen Brown, 25 June 2026.

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Ready to build what's next?

Explore how Lumen is investing in the network AI runs on and the digital capabilities that help organizations access, manage, and scale connectivity more easily.

Click here

to support evolving business needs on the expanding Lumen network today and discover deployment-ready solutions, regional upgrades, and connectivity options built for what's next.

Let's build the future together.