Lumen^{sм} Converged Services





Scalable, secure, cloud-friendly WAN solutions

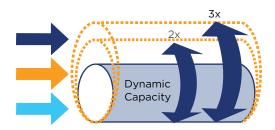
IT departments are on a digital transformation path to dynamic agility, and cloud is central to this strategy. Applications moving to public, private and hybrid clouds pose new challenges for delivery to the branch. The LumenSM MPLS/IP VPN service delivers global any-to-any connectivity over a variety of connection types in a flexible, secure, cost-effective and cloud-friendly way. Internet, voice and data can be delivered via flexible converged connectivity that maximizes your investment in the WAN. Cloud connectivity allows you to privately connect your WAN to your public cloud service to simplify security and provide predictable end-to-end performance of cloud applications. Lumen's next-generation network is software-defined networking (SDN) enabled to maximize efficiency and allow you to control your user experience of the service.

Let us do it for you. LumenSM Managed Network Services provide you with fully managed network services with proactive monitoring and management to help you improve your operational and cost efficiencies, simplify network management and allow you to focus on growing your business.

Lumen[™] Adaptive Network Control Solutions*

SDN allows Lumen to efficiently orchestrate the lifecycle of the WAN service and offer dynamic capabilities as part of our Lumen Adaptive Network Control Solutions* Portfolio.

- LumenSM Dynamic Capacity allows you to make real-time bandwidth changes to 2x or 3x the committed bandwidth on an hourly basis. This can be controlled via portal or mobile app. Dynamic Capacity activation options include manual immediate activation, scheduled, or automatic based on utilization thresholds from Lumen Enhanced Management.
- LumenSM Enhanced Management is the end-to-end performance analysis and management engine with personalized threshold detection that can be used to trigger dynamic functions such as Lumen Dynamic Capacity. It includes QoS performance, SLA measurement and reporting as well as an application layer analysis of the enterprise traffic.





Commitment flexibility and burst billing

Alternatively you may commit to fixed bandwidth, flat-rate billing or select usage-based billing with bandwidth burst capabilities.

Converged multi-service ports

Separate Voice, VPN and internet services can be delivered on the same physical port in various paired configurations. With the growth of public cloud and SaaS, it has become increasingly important to deliver internet directly to the branch office. As applications move between internet and private delivery, the converged port simplifies bandwidth planning because you only need to worry about how much total bandwidth you need. Bandwidth per service can flex and evolve seamlessly over time.



Global Coverage

To easily accommodate your business expansion, the Lumen MPLS/IP VPN global service reach extends in more than 60 countries across a global services platform anchored by owned fiber networks on three continents and connected by extensive undersea facilities. Other markets are accessed by our MPLS extended reach partners or with Lumen Secure Access Site, which provide managed IPsec access into the WAN.





Data Features

- TDM and Ethernet MPLS access up to 10 Gbps ports or bring your own internet access and use Lumen Secure Access Site to connect to Lumen MPLS/IP VPN
- Six Classes of Service to prioritize your voice, video and data applications
- Higher-availability options based on dual or hybrid connectivity
- Lumen Secure Access Cellular* uses vendor-agnostic cellular access for temporary, rapid and failover access
- Local internet can be secured by our network-based secure web gateway service or centrally with Lumen Secure Internet Access firewall
- LumenSM Cloud Connect Solutions* allow you to connect public cloud service providers to your network with predictable performance and security
- Multicast support
- Proactive availability monitoring, notification and incident management
- End-to-end performance SLAs
- Managed routers

Voice Features

- · Traditional or IP phone systems seamlessly supported
- Local, long distance and inbound 8xx calling
- Number of call path selection and bandwidth options
- PRI options to allow TDM migration to IP
- Most common voice features included (caller ID, call waiting, call transfer, etc.)
- Business continuity and disaster recovery (BCDR)
- Virtual market presence
- Remote site support
- Intra-enterprise calling
- Standard E-911 support
- Operator Services, 411 and Directory Assistance (OSDA)
- Prepaid long distance bundles available
- Turn-key Managed IAD and enterprise SBC solutions available
- Utilization reporting via Lumen portal



Simplified Management via Lumen customer portal

The Lumen Portal provides simple navigation, a feature-rich dashboard and personalization features with Lumen Enhanced Management, order management, invoicing and online payment, subscriptions and alerts, trouble ticketing, network maintenance event management, and network performance management monitoring tools—all from one place.

WAN Environment Cloud Environment Converged Multi-Service Port **Cloud Connect Partners** Office 365 Internet amazon Secure Access Site Internet **IP Cloud Interconnects Partners** Internet Secure Access Site SDN Enabled Internet 🖥 **MPLS** MPLS/IP VPN Private Secure Access Cellular Clouds Voice Private Clouds Internet Local PoP & Security Gateway 3G/4G/LTE MPLS/IP VPN or IPSec Physical Port Cellular Access Carrier Ethernet



Disclaimer

*ANCS, cloud providers and cellular based access subject to availability.

Why Lumen?

Focus

Non-incumbent global network operator that is focused on WAN services as core business.

Global Reach

We are virtually wherever you need us.

Flexible

Service options that allow you to control your user experience.

Innovation

Proven MPLS, MEF CE 2.0 Ethernet access network, security, and SDN technology.

Scale

As your business grows, our network is ready with approx. 450,000 global route miles of fiber and more than 150,000 on-net buildings.

877-453-8353 | lumen.com

