

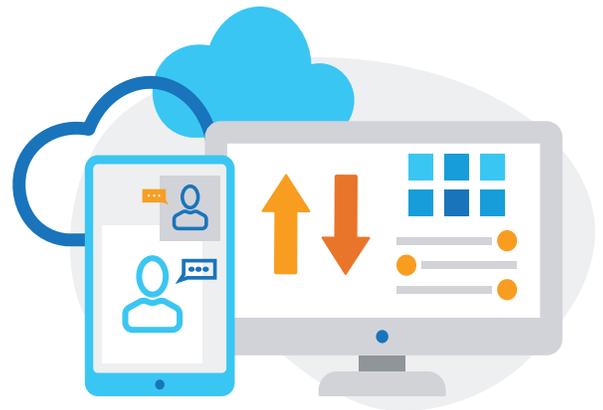
Lumen® Hyper WAN

Get answers to frequently asked questions about Lumen® Hyper WAN, now available in the Control Center portal.

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What is Lumen® Hyper WAN?

Lumen® Hyper WAN is a flexible enterprise network platform that can be designed, priced, and purchased online in minutes with the ability to add locations and services as needed. Lumen® Hyper WAN includes Lumen® Dedicated Internet and Lumen® MPLS IP VPN delivered dynamically with a full port of bandwidth and two optional network firewalls for protected outbound communication to the internet and building extension service. Each location is configured independently to your specific requirements using our digital buying experience. Our network platform offers a consistent, flat monthly service rate for Lumen® Dedicated Internet and Lumen® MPLS IP VPN that includes your choice of five bandwidth options for a single, 12-month term. Lumen® Hyper WAN is designed for up to 80% faster service delivery based on location and configuration and is available to on and off-net locations within the United States. Our flexible solution also supports easily implemented enhancements including additional network firewalls, managed equipment, DDoS mitigation, Lumen® Dynamic Connections IP VPN and more.



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What is Lumen® Hyper WAN used for?

Lumen® Hyper WAN provides a high-performance network that securely connects your business locations and users to the resources they need to run their daily operations. Lumen® Hyper WAN is perfect for supporting business-critical applications including:

- Fast and efficient delivery of public cloud applications and workloads
- Secure and private WAN connections to virtually any location
- Uninterrupted video conferencing and VoIP phone calls
- Consistent transmission of large data files
- Data backup and recovery
- Protected outbound communication to the internet for all your MPLS IP VPN connected locations

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What speeds are available?

Lumen® Hyper WAN is available in five symmetrical bandwidth options: 10 Mbps, 50 Mbps, 100 Mbps, 1 Gbps, and 3 Gbps. The monthly service rate for each bandwidth option is the same for Lumen® Dedicated Internet and Lumen® MPLS IP VPN using a single full port of bandwidth that can be shared across both networks.



How do I order?

You can order Lumen® Hyper WAN solutions online anytime using our digital buying experience. Design, price, and purchase your Lumen® Hyper WAN solution for each of your locations in minutes with online acceptance of terms and conditions. Once you complete the technical requirements section, just submit your order. You can collaborate online with your business technical contact without leaving the order process. Track your order progress online in one place through Lumen generated notifications, email, and chat with our support team.



How do I know if I need static or dynamic routing?

Static routing is easy to implement for a small network. It is very predictable and simplifies the routing table maintenance effort. Static routing can be used with stub networks that have a single, default route. Dynamic routing reduces the time-consuming task of maintaining larger routing tables. It is suitable for all network topologies. Dynamic routing can learn new preferred paths if the network topology changes and is more complicated to initially configure.



Is Lumen® Hyper WAN secure?

Yes. Lumen® Dedicated Internet service is delivered over a dedicated Ethernet circuit used only by your business. Our standard internet security provides temporary IP filtering through null routes and Access Control List filtering upon request.

Add DDoS mitigation to your service by location to protect against attempts to take over and control your network.

Lumen® MPLS IP VPN service provides private routing between your connected locations using MPLS to segment your traffic from other businesses on the network. This service uses Virtual Route Forwarding (VRF) tables that you provide to deliver packets across the network using uniquely assigned labels. Real-time applications receive priority bandwidth attention using CoS policies that you control. Two network firewalls are included to filter traffic that traverses the public internet for MPLS IP VPN service from your connected users.



What can I expect when I order Lumen® Hyper WAN?

To get started, make a list of all the locations you want to connect. You will design the network based on those locations. Next, choose different bandwidth port speeds for each location—this is how your service will be priced. Hyper WAN includes the use of two network services: Lumen® Dedicated Internet and Lumen® MPLS IP VPN. Both services can use the available bandwidth on the port. This can be quoted over any internet-connected device. At any time, save your order and return later to complete it.

Once you're ready to continue, click "next." If you're already a Lumen Control Center user, simply accept the 12-month term to complete your order. If you are a new user, you will be prompted to set up a new Lumen account. All you have to do is add the first and last name of the account owner and their wireless phone number and email address. Then, create a password for the account and fill in your business name, primary address and phone number. That's it. Now just return to your order, accept the terms and conditions and click "submit and login to continue" to complete your order.

After you've completed your order, you will be prompted to configure your solution. New customers will be prompted via email to log in to Lumen Control Center. Technical configuration of your service requires assistance from resources within your business that manage your wide area network. You will be asked to provide information about IP address space, service port configuration, VLAN tagging, logicals, routing and more. Please be prepared to seek assistance with this phase of the order process if needed. You will configure each service location separately. The online experience will inform you when the required information has been provided. You will then be asked to submit your order beginning the service delivery process.



What can I expect after I submit my order for Lumen® Hyper WAN?

Once you submit your order, we'll keep you informed throughout the service delivery process. Check our portal at any time for scheduled notifications, status updates and communications from our professional service staff. You can also ask questions using online chat or call our support team at 1-800-414-1973.



How will I know what network configuration to choose?

Choose your network based on the needs of the specific location. Here are a few examples of different use cases for each service:

Lumen® Dedicated Internet - If your location works independent of corporate resources and relies more heavily on public cloud-based applications and services, Lumen® Dedicated Internet may be the right choice. It offers high-performance support for real-time streaming, data backup and continuous two-way application connectivity between cloud data centers and your business locations.

Lumen® MPLS IP VPN - If your location requires connectivity to centralized resources for data and company-wide information that requires sharing private customer information or intellectual property across all your networked locations, Lumen® MPLS IP VPN may be the right choice for you. Lumen® MPLS IP VPN provides highly secure connectivity between two or more sites that's segmented from other business traffic while supporting prioritized application routing using class of service policies to help ensure that mission-critical applications receive the attention they need. Lumen® MPLS IP VPN includes two optional network firewalls for protected outbound communication to the internet.

Hybrid WAN - If your location requires separate logical connections to both a private VPN and access to the internet, a hybrid of both services may be your best choice. It supports the wide variety of workloads that need to be delivered to a diverse and highly distributed group of locations that have differing needs, access permissions and performance requirements.



How is Lumen® Hyper WAN activated?

Once you place your order online, we automatically provision your solutions using a virtual circuit, so you're connected quickly and ready to work. Depending on your location and service configuration, Lumen® Hyper WAN is designed to provide up to 80% faster service delivery times. If some of your locations don't have direct access to the Lumen network, we support these offnet locations with Ethernet access connectivity. Service delivery times will vary based on location preparation including site survey, inside wiring requirements, and equipment availability.



How do I get help with my purchase?

Chat and call options are available within the digital buying experience to provide any help or answers to questions you may have about your order. The Lumen Control Center will also provide regular updates on the progress of your order. Your account management and support teams are available to guide you through the process.

**When will I receive my Lumen® Hyper WAN solution?**

Your digital buying experience will provide you with a customer commit date that includes an estimated service delivery time. You will have the option to request a preferred service delivery date that is different from the provided customer commit date during the digital buying experience.

**With Lumen® Hyper WAN, can all my locations securely connect to the internet?**

Yes. Lumen® MPLS IP VPN network includes two optional network firewalls for protected outbound communication to the internet for your connected locations. DDoS mitigation service can be added to Lumen® Dedicated Internet to protect a location against attacks that attempt to take over and control your network and the devices connected to it.

**Some of my locations have unique network topology requirements. Does Lumen® Hyper WAN support this?**

No. Lumen® MPLS IP VPN only supports a fully meshed configuration. However, we can support virtually any network topology requirement with a customized solution designed specifically for your business. Contact your account manager today to get started.

**I have a large scope of traffic-shaping requirements supporting unique application use cases. Does Lumen® Hyper WAN support this?**

Possibly. We provide provide a single class of service template that supports up to six application policies and Unicast traffic transmission. If your business requires multiple levels of service segmentation, different network topologies, access types and bandwidth prioritization, you may be better served by a customized network solution. Lumen serves the unique network needs of some the largest corporate and government organizations in the world. Contact your account manager today to get started.

**Lumen® Hyper WAN appears to have limited network service and feature options. Can I add service and feature upgrades to the platform?**

Yes. While Lumen® Hyper WAN was designed to offer streamlined bandwidth and access configuration options, we offer a flexible platform that easily accommodates service upgrades. In the near future, we will provide over-the-top (OTT), managed services and feature enhancements that can be easily added using the same intuitive online interface. Service enhancements available today include Dynamic Connections IP VPN, DDoS mitigation service for Lumen® Dedicated Internet, and additional network firewalls for Lumen® MPLS IP VPN. Future services include SD-WAN, Voice, Managed Customer Premise and more. Watch for availability announcements in the Lumen Control Center.





Does Lumen® Hyper WAN provide any Service Level Agreements (SLAs)?

Yes. Lumen® Hyper WAN has SLAs for our IP network services including 99.99% network availability, up to 99.99% packet delivery and average round trip network latency by region.



How is Lumen® Hyper WAN purchased online different from Lumen® Dedicated Internet and Lumen® MPLS IP VPN purchased from a Lumen associate?

Lumen® Hyper WAN provides a streamlined set of service options that supports a fast configuration, pricing and purchasing experience with automated provisioning. Our Dedicated Internet Access (DIA) and Integrated IP VPN products support deeper service customization, including multiple access types and service features. If your business requires a solution that addresses specific requirements, we can support it. For help with a Lumen® Hyper WAN order, please call 1-800-414-1973. If you need help with a customized Dedicated Internet and/or Lumen® MPLS IP VPN wide area network connectivity, please call 1-800-871-9244.



How do I get help with my Lumen® Hyper WAN activation?

If you need help or have questions about your order, you can chat with an agent online or call our support team at 1-800-414-1973.

For more information, visit the Lumen® Hyper WAN product page:

www.lumen.com/en-us/networking/hyper-wan.html