

Modern Site-to-Site Connectivity Across Data Centers and Premises

Flexible Layer-2 connectivity with **Lumen® Ethernet Fabric Connect**, and optional Layer-3 routing using **Lumen® Multi-Cloud Gateway** as environments scale

Enterprises operating multiple data centers and distributed sites require reliable, high-bandwidth connectivity to support replication, backup, application mobility, and shared services. Legacy private line and MPLS architectures often lack the flexibility needed to scale or adapt to changing traffic patterns.

Lumen Ethernet Fabric Connect provides a modern, fabric-based approach to Layer-2 connectivity across sites, supporting point-to-point, hub-and-spoke, and logical mesh connectivity patterns using standardized Ethernet services. Where Layer-3 routing and centralized policy are required, Multi-Cloud Gateway can be introduced without redesigning the underlying transport. This approach enables organizations to modernize site-to-site connectivity while preserving deterministic performance and operational simplicity.

Modernizes Rigid Site-to-Site Connectivity Models

Legacy private line and MPLS architectures are circuit-centric and slow to adapt to changing business requirements. Adding sites, increasing bandwidth, or changing topology often requires new circuits and manual reconfiguration. Fabric-based connectivity replaces these rigid models with flexible, logical connections that scale easily as environments grow.

Enables Flexible Topologies Without Redesign

Enterprises often need to support multiple site-to-site patterns—point-to-point for replication, hub-and-spoke for shared services, or logical mesh patterns for distributed applications. Traditional designs require separate services or architectures for each. Ethernet Fabric Connect supports these topologies within a single portfolio to help reduce design complexity and operational overhead.

Enables Gradual Evolution to Layer-3 Control

Some applications require pure Layer-2 connectivity, while others benefit from routed segmentation and policy control. Rather than forcing an upfront choice between connectivity models, enterprises can start with Layer 2 and selectively add Layer 3 routing via Multi-Cloud Gateway as needs evolve, all without impacting existing connectivity.

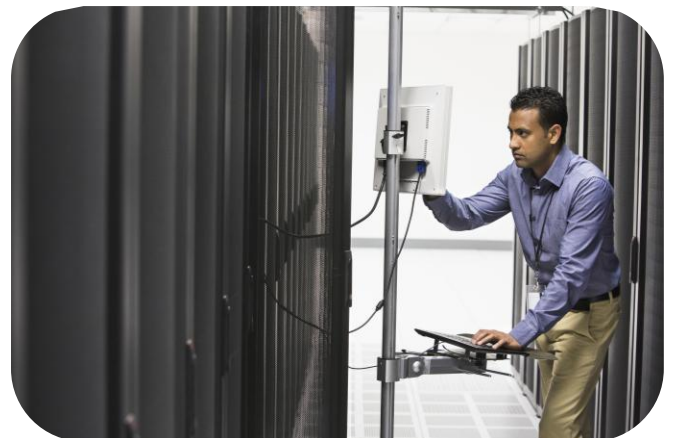
Key benefits

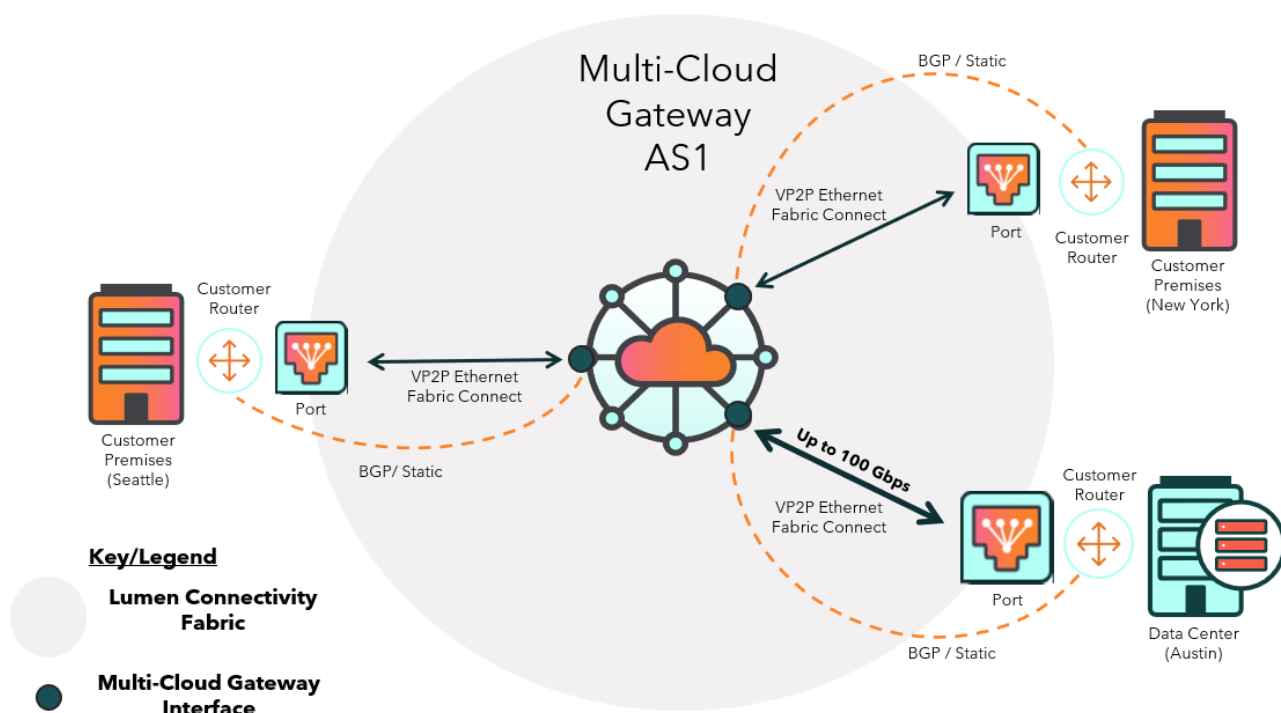
Flexible Layer-2 topologies using a single connectivity portfolio

Optional Layer-3 routing introduced only where needed

Fast site turn-up and changes compared to traditional private lines

Low operational complexity at scale through fabric centric design





Key Technical Capabilities

MEF-aligned Layer-2 service portfolio

Supports virtual point-to-point (EVPL) Ethernet services, enabling transparent and virtual Ethernet connectivity across a wide range of site-to-site topologies

Fabric centric scaling model

Logical connections are decoupled from physical infrastructure, minimizing per site operational effort as environments expand

Optional centralized routing with MCGW

Adds Layer 3 routing, centralized routing table prefix-list filtering, and MD5 authenticated BGP sessions for routing integrity and controlled route propagation—without forcing a redesign of existing Layer2 connectivity

Deterministic performance

Private Ethernet paths deliver consistent latency and throughput for data intensive workloads

Operational consistency

Provisioning, monitoring, and lifecycle management are handled through a unified platform experience

Why Lumen?

Lumen is unleashing the world's digital potential by delivering the network foundation modern enterprises rely on to connect clouds, data centers, and edge environments. Built on one of the largest and most deeply embedded fiber networks in the world, Lumen provides the scale, reach, and performance required to move massive volumes of data quickly, securely, and reliably. As the trusted network for AI, our expansive metro and long-haul fiber, combined with private connectivity and programmable network services, enables seamless multi-cloud and fabric-based architectures. From high-capacity transport to intelligent edge and managed services, Lumen helps customers meet today's demands while building for what's next.

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