Unified Hybrid Connectivity from Premises and Data Centers to Cloud

Extending private connectivity into clouds with **Ethernet Fabric Connect** and centralized routing control through **Multi-Cloud Gateway**

Hybrid IT environments demand reliable, high-performance connectivity between enterprise data centers, customer premises, and public clouds. Many organizations struggle with fragmented designs that bolt cloud connectivity onto existing WANs, resulting in inconsistent routing policies, slow change cycles, and duplicated infrastructure.

By combining Ethernet Fabric Connect for private Layer-2 connectivity with Multi-Cloud Gateway for centralized Layer-3 routing, enterprises can seamlessly extend their routing domain from on-premises environments into the cloud. This approach establishes a unified hybrid networking model between over10 million sites and data centers* to cloud environments, interconnected through a common fabric and governed by consistent routing policy. The result is a flexible, fabric-centric hybrid architecture designed to scale efficiently, simplify operations, and align naturally with cloud-driven application architectures.

Simplifies Fragmented Hybrid Network Designs

Many hybrid environments are built incrementally, layering cloud connectivity on top of legacy WANs using point solutions, VPN overlays, or cloud-native gateways. Over time, this can create inconsistent routing behavior and duplicated operational models between on-premises and cloud environments. This solution establishes a unified routing approach that spans 10M+ qualified premises, data centers, and clouds using a common fabric and control plane.*

Minimizes Time and Effort to Extend On-Premises Networks to Cloud

Traditional hybrid connectivity often requires long lead times, manual provisioning, and per-site redesign when adding new cloud environments. These delays slow application migration and limit architectural flexibility. By using fabric-based connectivity and virtualized routing, organizations can extend private connectivity to cloud environments quickly and minimize effort.

Streamlines Routing and Policy Consistency

Hybrid environments frequently apply different routing and access policies on-prem and in the cloud. This inconsistency can complicate troubleshooting and increase risk. Routing tables provide centralized control of traffic flow, enabling consistent routing behavior across environments.

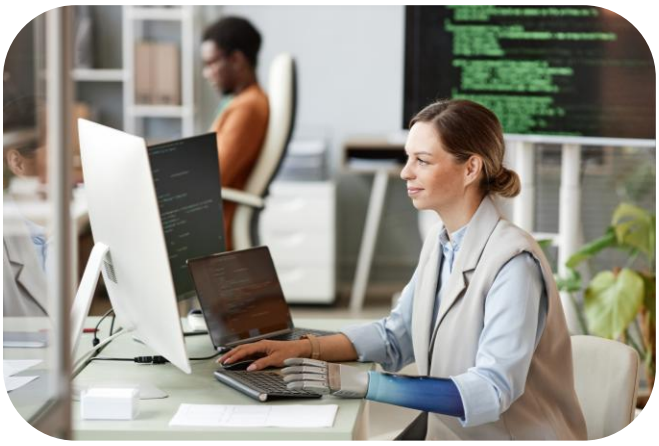
Key Benefits

Unified routing domain spanning 10 million premises and data centers to clouds*

Private, deterministic performance versus internet VPN overlays

Fast hybrid expansion using fabric-based connectivity and virtual routing

Simplified operations through centralized policy and visibility



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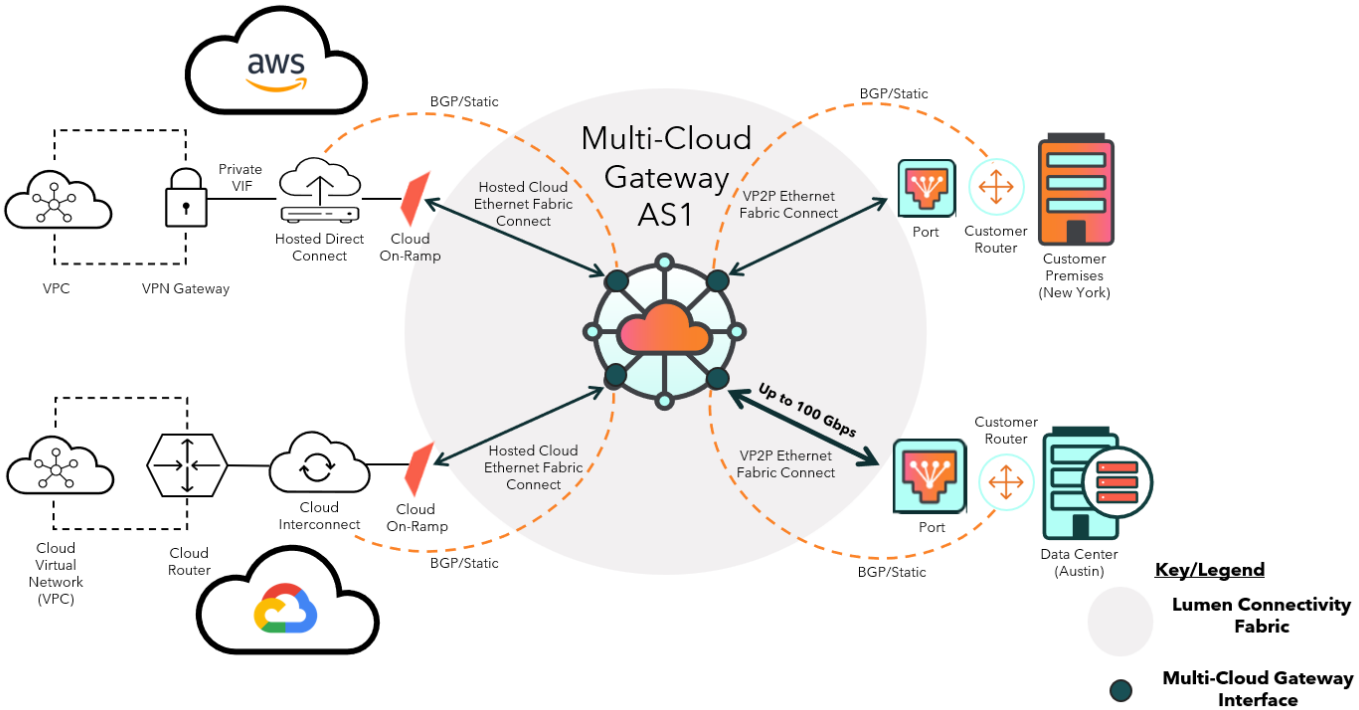

Key Technical Capabilities

Fabric-centric hybrid connectivity
Ethernet Fabric Connect decouples physical infrastructure from logical connectivity, supporting virtual point-to-point and hosted cloud (EVPL) Ethernet services across hybrid environments

Centralized Layer-3 control
Multi-Cloud Gateway applies routing policy once and enforces it consistently across attached sites and clouds, supporting prefix-list filtering and MD5-authenticated BGP sessions to maintain routing integrity and controlled route propagation

Flexible Attach Models
Supports customer premises, data centers, and cloud on-ramps using the same fabric and routing constructs

Consumption-based scalability
Bandwidth and routing capacity scale with demand, avoiding rigid, site-by-site re-engineering

Operational visibility and control
Visibility enables proactive management of hybrid traffic flows

Why Lumen?

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