

Private Cloud-to-Cloud Routing for Multi-Cloud Architectures

Use **Multi-Cloud Gateway** with **Ethernet Fabric Connect** to deliver centralized Layer-3 routing without hair-pinning or internet transit

As enterprises adopt multiple public clouds, application architectures increasingly generate east-west traffic between cloud environments for data synchronization, analytics pipelines, AI model training, and workload mobility. Traditional designs route this traffic over the public internet or force it to hair-pin through customer data centers, increasing latency, cloud egress costs, and operational complexity.

Multi-Cloud Gateway, combined with Ethernet Fabric Connect, delivers private, deterministic cloud-to-cloud routing at cloud on-ramps. By applying centralized Layer 3 private routing and policy control on top of private Layer 2 fabric connectivity, Multi-Cloud Gateway enables organizations to manage routing across multiple clouds as a single, cohesive routing environment—without deploying customer-managed routers or relying on internet-based transit.

Removes Cloud-to-Cloud Hair-Pinning

Enterprises frequently route inter-cloud traffic back through customer data centers or centralized WAN hubs, introducing unnecessary latency and operational overhead. This architecture was never designed for east-west cloud traffic and becomes increasingly inefficient as workloads scale across regions and providers. By enabling private routing directly between cloud on-ramps, this solution removes artificial transit paths and keeps traffic closer to where applications run.

Centralizes Routing Across Multiple Clouds

Each public cloud offers its own native routing constructs, which often results in fragmented policies and duplicated configuration across environments. As organizations add clouds or regions, routing logic becomes harder to maintain and validate. Routing tables within Multi-Cloud Gateway provide a single control point for route exchange, simplifying governance and minimizing configuration drift.

Avoids Internet-Based Inter-Cloud Transit

Public-internet paths introduce unpredictable latency and congestion for inter-cloud traffic, with limited control over path selection and performance. Lumen® Connectivity FabricSM keeps cloud-to-cloud traffic on private connectivity for consistent, deterministic performance.

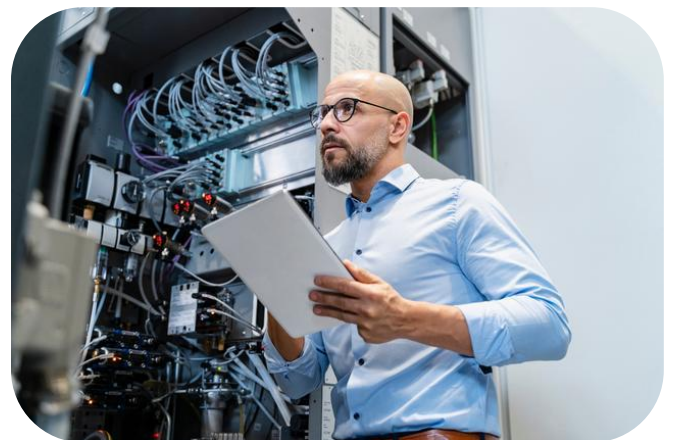
Key benefits

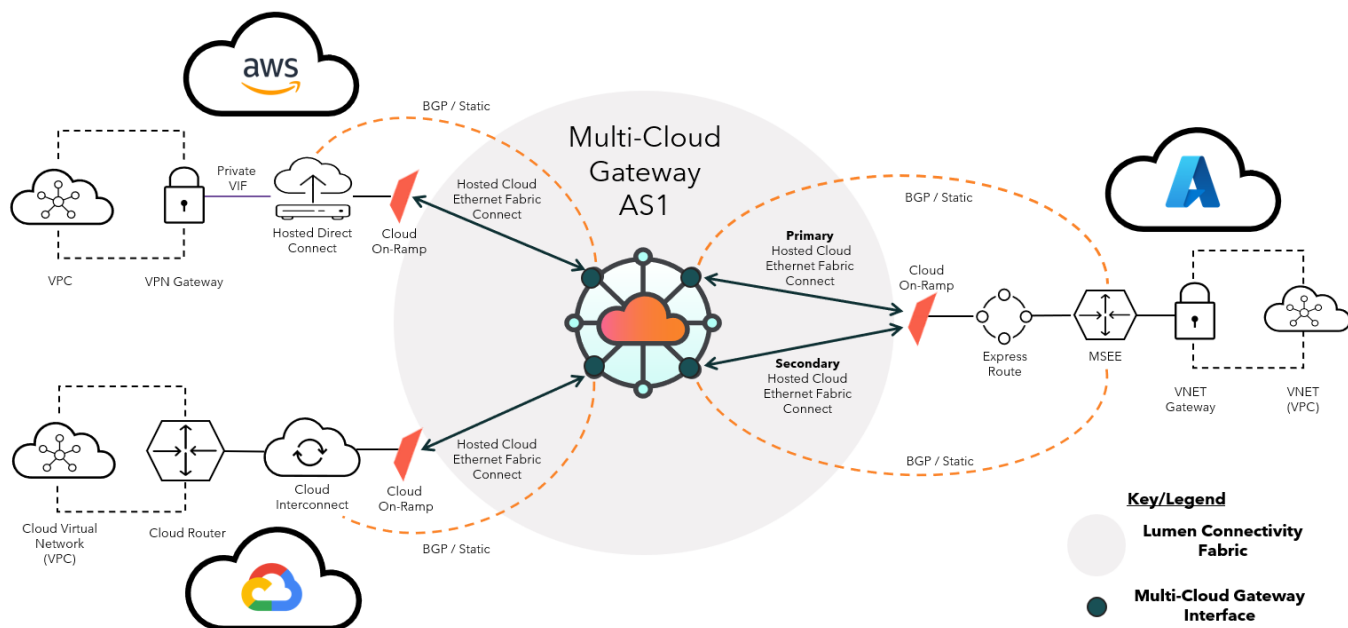
Private, predictable inter-cloud traffic paths using Lumen® Connectivity FabricSM

Centralized routing control across multiple clouds using a single virtual gateway

Low operational overhead versus deploying and managing per cloud routing appliances

Fast architectural change through near real-time provisioning via Lumen ConnectSM portal and APIs





Key Technical Capabilities

Virtual Layer-3 routing on the Fabric

Multi-Cloud Gateway overlays IP routing on top of fabric-based Ethernet Layer 2 connections (Ethernet Fabric Connect), enabling cloud-to-cloud routing without physical routers or customer-managed virtual appliances

Centralized BGP and routing policy

Routes from each cloud are learned and controlled in one place using BGP, with prefix-list filtering, policy driven propagation, and MD5-authenticated BGP sessions to help maintain routing integrity across environments.

Cloud on-ramp-centric design

Optimized for east-west cloud traffic, minimizing hops and avoiding unnecessary detours through customer sites

Shared, tiered capacity model

Aggregate bandwidth is applied at the gateway level, allowing multiple cloud connections to scale without per connection redesign

API-First, platform-led operations

Routing environments are provisioned and modified near real-time through the Lumen ConnectSM portal or API

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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