

Lumen® Multi-Cloud Gateway Concepts at a Glance

Routing, Architecture, and Deployment Overview

What is Multi-Cloud Gateway?

Lumen® Multi-Cloud Gateway is a virtualized Layer-3 routing service deployed on the Lumen® Connectivity Fabric™. It centralizes IP routing policy, traffic control, and route exchange across private cloud and enterprise networks.

Multi-Cloud Gateway is a logical routing construct—not a physical device and not a transport service—designed to simplify scalable hybrid and multi-cloud architectures by separating routing control from underlying connectivity.



Core Routing and Traffic Capabilities

BGP-based routing adjacencies

- Centralized BGP termination for cloud on-ramps and enterprise networks.

Route advertisement and acceptance control

- Explicit control over which IP prefixes are imported into and exported from the routing domain.

Logical traffic segmentation

- Routing tables act as traffic domains, defining which connections can exchange routes and traffic.

Deterministic path selection

- Traffic follows predictable private paths governed by routing policy rather than topology constraints.

Capability	Description	Benefit
Local Preference	Sets preferred routing paths within the Gateway routing domain	Steer traffic based on performance, cost, or policy
Multi-Exit Discriminator (MED)	Influences path selection when multiple ingress or egress paths exist	Optimize egress traffic across clouds or regions
AS Path Prepending	Artificially lengthens AS paths to reduce route preference	Control traffic flows for active/active or DR designs
Bidirectional Forwarding Detection (BFD)	Rapid detection of path or peer failure	Fast failover and improved application availability
MD5 Authentication	Secures BGP sessions between peers	Protect routing adjacencies from unauthorized connections

Architecture and Key Components

Virtual Layer-3 Gateway

- Logical routing instance on the Lumen® Connectivity FabricSM that terminates BGP sessions
- Central point for routing policy, traffic segmentation, and path selection

Interfaces

- Logical interfaces added to the gateway during deployment
- Each connection maps to a dedicated interface, enabling clear routing control and scale

Connectivity Fabric Attachments

- Private Ethernet Fabric Connect services (VP2P, HCC)
- Attach to gateway interfaces and provide bandwidth and IP reachability

Routing Tables

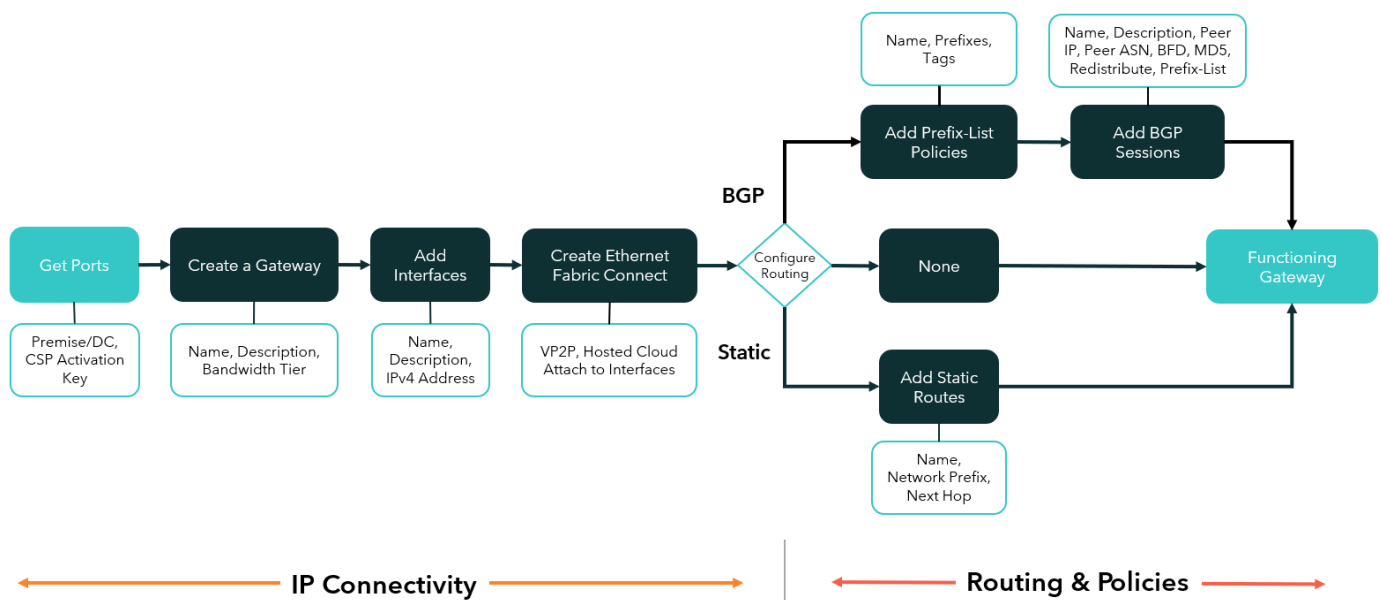
- Identify, define, and verify which networks can exchange routes and traffic
- Enable segmentation without duplicating routing policy per cloud

Routing Configuration and Policies

- Applied after IP connectivity is established
- Support BGP, static routing, or Directly Connected configurations

Lumen® Connectivity FabricSM

- Private data plane between connections
- Traffic flows directly over the Lumen® network, not the public internet



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 peered 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.