



PRIVATE DATA SERVICES

Reliable, scalable Ethernet solutions designed for how Alaska organizations operate.

WHITE PAPER



Private Connectivity Built for Alaska

Alaska organizations depends on reliable networks that perform consistently, securely, and without interruption. They demand connectivity across vast distances, variable infrastructure, and conditions that challenge any network. Whether supporting critical applications, linking remote sites, or moving large volumes of data, downtime or degraded performance isn't acceptable.

GCI's private data services portfolio provides private, high-performance connectivity designed for those realities. Rather than a one-size-fits-all approach, GCI offers four distinct solutions that align to how organizations operate and their network requirements:

- **Ethernet Private Line (E-PL)** for maximum performance between critical locations
- **Ethernet Virtual Private Line (E-VPL)** for cost-effective, point-to-point connectivity
- **Ethernet Wide Area Network (E-WAN)** for scalable, multi-site networks
- **Virtual Private Routed Network (VPRN)** for fully managed, routed connectivity

Each option is built to support a different balance of performance, flexibility, and operational simplicity, allowing organizations to choose the right fit for their network both today and as they grow.

Finding the Right Fit

Not every organization needs the same network.

Some rely on a small number of critical connections where performance cannot vary. Others operate across many locations and need a network that scales easily. Some have internal IT teams that want full control over routing and configuration. Others need a solution that works without adding operational burden.

In Alaska, those decisions are shaped by additional realities—distance between sites, varying infrastructure, and the need for consistent performance across urban and rural environments.

When evaluating private data services, organizations should consider:

- How many locations need to be connected
- Whether sites need to communicate directly with each other
- What the bandwidth, latency, and other performance requirements are between specific locations
- How much control is needed over network configuration
- Whether the network needs to scale over time

GCI's private data services are designed to align to these needs, supporting everything from high-performance point-to-point or any-to-any connections, to fully managed, statewide networks.

Understanding Your Options

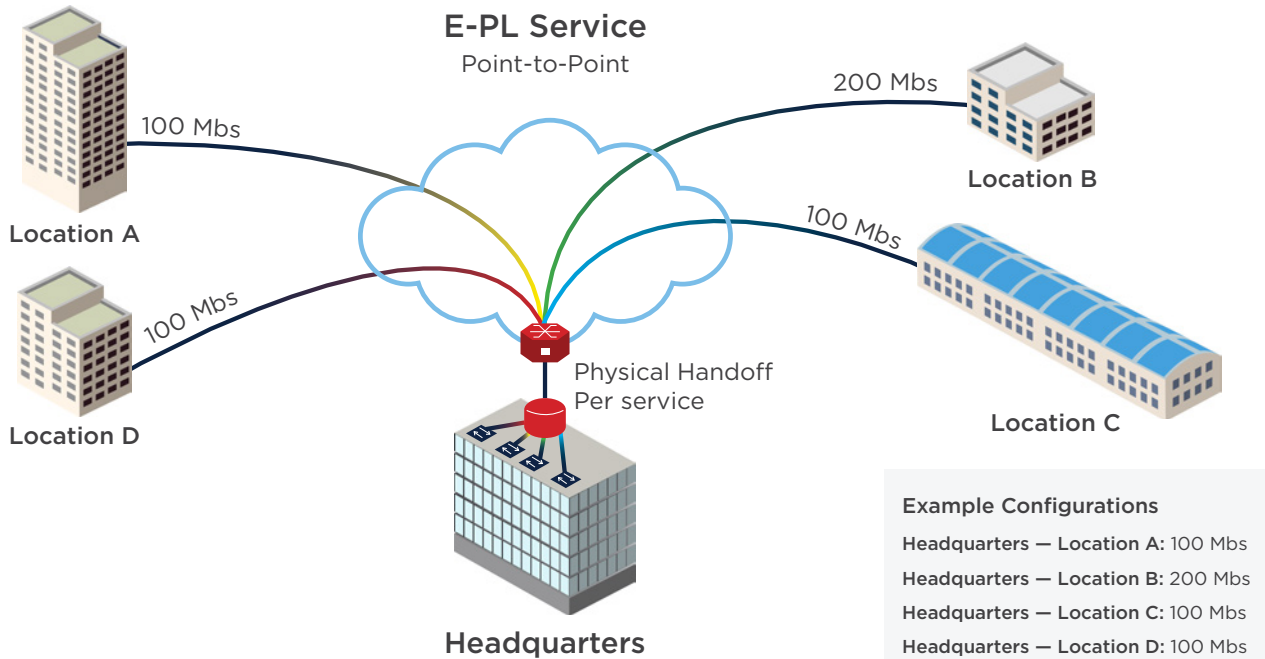
Regardless of how your business operates, GCI's private data services portfolio is built for you—from direct, high-performance connections between two sites to fully managed networks that connect several locations.

Ethernet Private Line (E-PL)

Maximum performance for critical connections

Designed to behave like a direct physical link, E-PL is a dedicated, point-to-point connection between multiple locations. Providing consistent, high-performance transport for critical workloads, E-PL is built for environments where performance cannot vary, such as data center interconnects, disaster recovery, or other high-throughput applications.

Organizations that replicate data between locations or maintain backup environments rely on E-PL to ensure data moves predictably and without interruption. In these scenarios, large datasets like backups or system replicas need to transfer continuously, often under tight time constraints—making consistency and speed equally important.



Business purpose

- Data center interconnects requiring high-throughput, low-overhead replication between locations
- Primary-backup and disaster recovery connections demanding deterministic, consistent performance
- Performance-sensitive applications like financial, healthcare, and real-time workloads that can't tolerate variability
- High-impact sites like headquarters and core campuses where interruptions affect many users

Strategic advantages

- Full Layer 2 transparency, supporting LLDP, CDP, VLANs, Q-in-Q, MACsec, and spanning tree variants, functioning like an extended cable between locations
- All customer traffic is encapsulated and given high-priority treatment across the network
- Dedicated, guaranteed bandwidth provisioned end-to-end
- Delivered on a dedicated physical interface, with the GCI core invisible to your network design

Ideal customer profiles

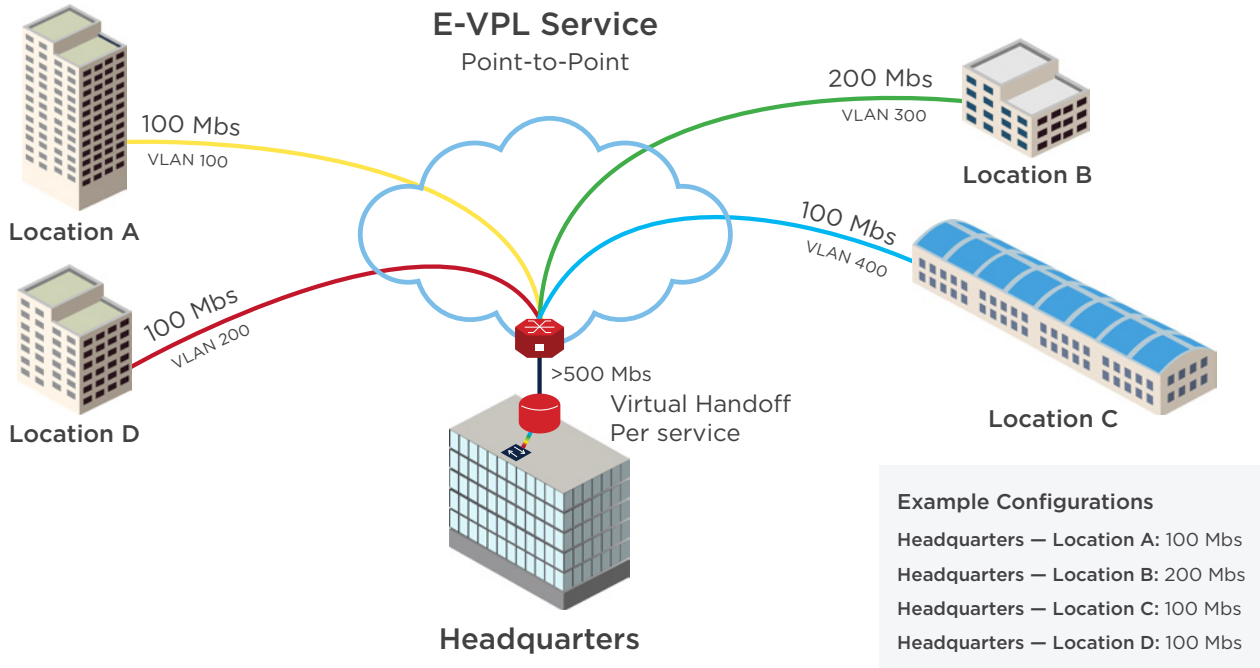
When you need the highest-assurance, cable-like performance for critical links—full Layer 2 transparency, high-priority traffic treatment end-to-end, and guaranteed bandwidth. Ideal for mission-critical workloads that can't tolerate variability.

Ethernet Virtual Private Line (E-VPL)

Flexible, cost-effective connectivity

E-VPL provides private, point-to-point connectivity between locations, with a more flexible and efficient delivery model than E-PL. Multiple connections can be supported over a single interface, reducing infrastructure requirements while maintaining reliable performance.

It's well-suited for organizations that need consistent connectivity across multiple locations without the cost or complexity of a premium, feature-heavy service. This often includes businesses with branch locations connecting back to a central site. For example, a bank with multiple branches can use E-VPL to provide secure, reliable access to core systems, ensuring transactions and operations remain uninterrupted across all locations.



Business purpose

- Branch-to-headquarters and core connectivity across multiple locations
- Segmented workloads requiring QoS and VLAN-based traffic prioritization without complex re-architecture
- Multi-site operations that need reliable private transport with flexibility to scale incrementally
- Organizations balancing performance, control, and cost without the specialized requirements of E-PL

Ideal customer profile

When you need cost-effective, private point-to-point transport with QoS control and the flexibility to run multiple logical circuits over a single connection—without the cost or specialized requirements of a premium solution.

Strategic advantages

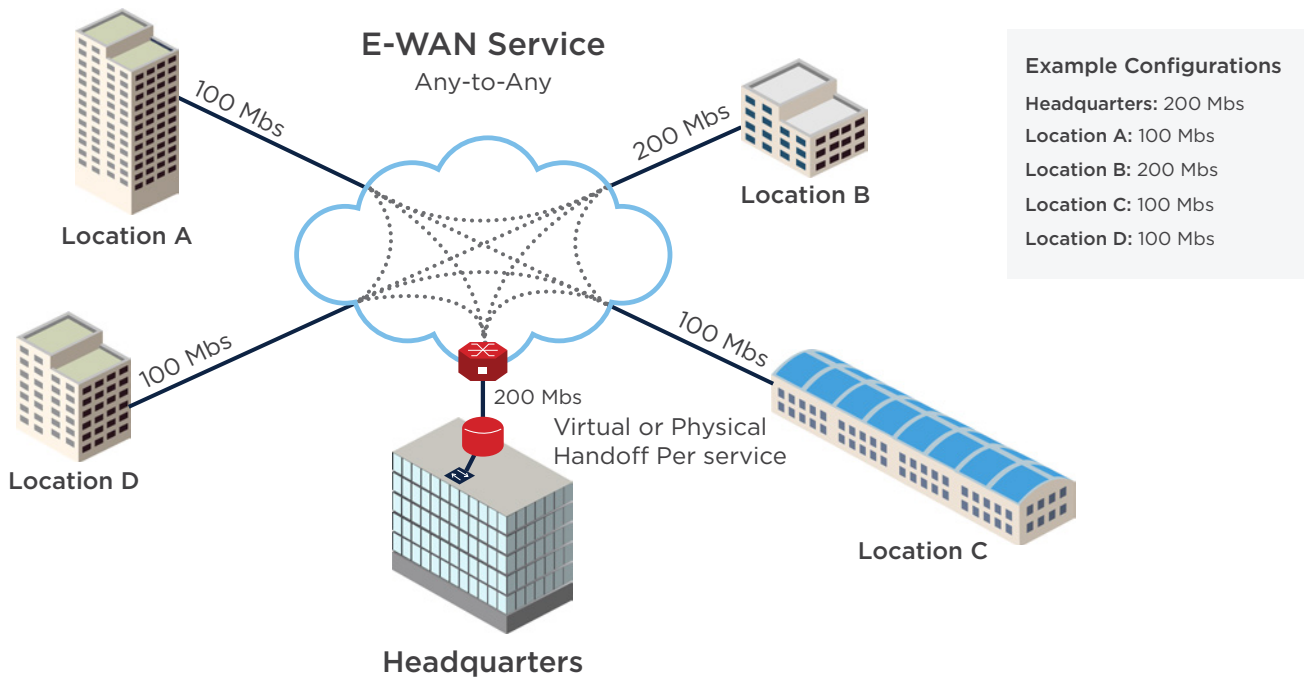
- Preserves and honors customer QoS markings so priority traffic receives preferred treatment
- Multiple virtual circuits over a single physical interface, reducing edge hardware footprint
- Standards-based Layer 2 support, VLAN tagging and Q-in-Q for traffic segmentation and engineering
- Managed and monitored with visibility into service health

Ethernet Wide Area Network (E-WAN)

Scalable connectivity for multi-site organizations

E-WAN replaces a web of individual point-to-point links with a single, unified network where every location can communicate directly with every other. It's built for scale: Adding sites is straightforward, and bandwidth can be sized to match each location's actual demand.

This approach is designed for organizations operating across many locations, especially when bandwidth needs vary from site to site. A distributed operation with a mix of large and small locations can allocate more bandwidth to high-demand sites while maintaining seamless communication across the network. As new locations are added, they can be integrated without redesigning the network or adding layers of complexity.



Business purpose

- Multi-branch enterprises in retail, healthcare, public sector, and distributed organizations with many locations
- Hybrid topologies, streamlining mixed hub-and-spoke and partial-mesh designs into a single any-to-any fabric
- Phased rollouts where new sites need to be brought online quickly without full network redesign
- Organizations with varying bandwidth demands that need to right-size capacity per location

Strategic advantages

- Every site has a single hop to every other, with no daisy chains or stacked point-to-point circuits
- Bandwidth sized and billed independently per site to match real usage patterns
- Customer QoS support to mark and protect critical traffic across a distributed topology
- Managed and monitored with central visibility to support operations and issue resolution

Ideal customer profile

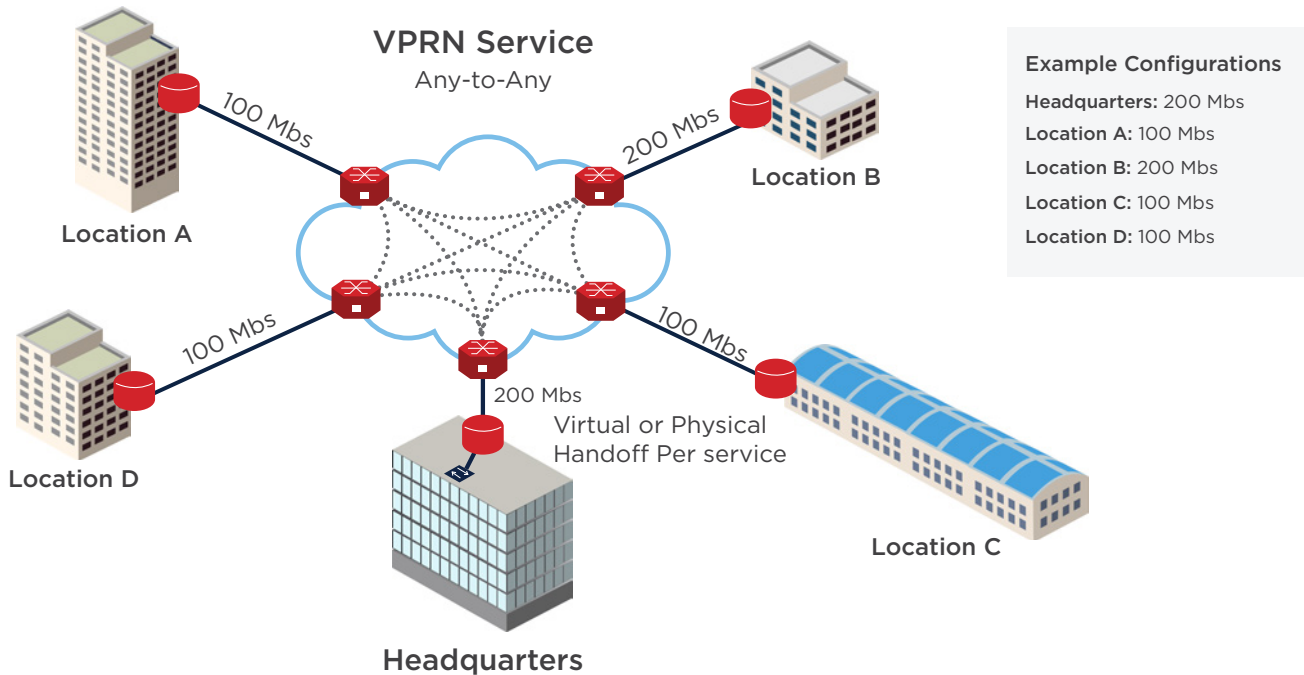
When you need a Layer 2 any-to-any mesh for a multi-site organization and want Ethernet-level control with the ability to scale and right-size bandwidth per location independently.

Virtual Private Routed Network (VPRN)

Managed, scalable networking without the overhead

VPRN delivers a fully managed, Layer 3 network that provides any-to-any connectivity across multiple locations, with routing and traffic management handled by GCI. It combines the scalability of a multi-site network with the simplicity of a managed service.

For organizations that need a robust multi-site network but don't want the overhead of managing it, VPRN removes the burden entirely. GCI handles routing configuration, traffic prioritization, and ongoing performance management, so internal teams stay focused on their operations, not their network equipment—especially valuable for teams operating across distributed environments.



Business purpose

- Organizations without dedicated routing teams that need a fully managed, turnkey WAN
- Distributed enterprises with many locations requiring predictable performance without managing routing infrastructure
- Environments where Layer 2 transparency is not required and a routed service simplifies operations
- Customers where E-WAN would meet connectivity needs but operational simplicity is the priority

Strategic advantages

- GCI provides and manages routing equipment, including packet classification, QoS shaping, and routing policies.
- Any-to-any architecture, with one connection at each site providing access to all others, no customer routing expertise required
- Fully private IP environment unexposed to the public internet, reducing threat surface
- Managed and monitored with operational visibility across the network

Ideal customer profile

When you need a simplified, fully managed, routed WAN with any-to-any connectivity, and you want GCI to handle routing, QoS, and ongoing operations with a scalable, node-based design.



Why GCI

For more than 45 years, GCI has invested in building a network to deliver reliable connectivity in Alaska. We've combined fiber, microwave, and satellite technologies to deliver connectivity across some of the most challenging terrain and weather conditions in the country. That foundation allows organizations to connect locations across Alaska with consistency, whether they're supporting essential systems, serving distributed teams, or expanding into new communities.

But infrastructure is only part of the equation. GCI's approach is rooted in the people and communities it serves. With employees living and working in communities across Alaska, the network is maintained by local teams who understand firsthand the environments our customers operate in. That local presence shapes how solutions are designed, deployed, and supported, ensuring they perform reliably in real conditions.

That same long-term commitment carries through in how GCI supports its customers. Rather than delivering one-size-fits-all services, the focus is on building connectivity that aligns to how each organization operates, from high-performance links between sites to scalable networks that grow over time.

In Alaska, choosing the right network is more than a technical decision. It's a commitment to infrastructure that works when it matters most—across remote communities, in demanding conditions, day in and day out. GCI brings the network, the local knowledge, and the long-term accountability to make that possible.



Learn more

To learn more about GCI Private Data services, visit gci.com/business/products/managed-services/ethernet or contact your GCI representative.