

# Efficient, Reliable Connectivity

In today's data-driven world, you need consistent, efficient and reliable access to your information and systems. Whether you have one office or need to connect multiple locations, FirstLight's Ethernet service is the reliable, scalable solution needed to help your business thrive.

## Flexible Options

FirstLight's Ethernet service is delivered over our FirstLight fiber optic network, which we own and manage to ensure high uptime and performance. With multiple classes of service (CoS), FirstLight's Ethernet solutions not only support today's voice, data and video applications, but are flexible enough to accommodate future applications as your business needs evolve.

This Layer 2 service is designed in accordance with Metro Ethernet Forum (MEF) standards to ensure a high quality and reliable experience and is available in point-to-point, point-to-multipoint and multipoint-to-multipoint configurations.

## Benefits

- **Scalable:** Scalable bandwidth from 5 Mbps to 100 Gbps with the ability to rapidly increase bandwidth when needed
- **Secure:** The connections are dedicated to your organization's use. Your data does not traverse the public Internet
- **Simplified Architecture:** No differentiation between LAN and WAN simplifies the architecture and improves both network and cost efficiencies
- **Performance:** Enhance your network's performance with high-capacity, dedicated bandwidth, backed by strong Service Level Agreements (SLAs) for performance, availability and restoration timeframes
- **Reliable:** Service is backed by 24x7 network monitoring from our Network Operations Center
- **Standards-Based:** FirstLight's Ethernet service is designed to conform to Metro Ethernet Forum (MEF) standards to ensure interoperability

### Ethernet Private Line (EPL) Service

FirstLight's EPL service is a dedicated, point-to-point Ethernet connection. This service is ideally suited to support the demands of bandwidth intensive applications by providing reliable, scalable, point-to-point Ethernet connectivity. This service is a cost effective alternative to traditional TDM private line services and provides symmetrical, full-duplex, guaranteed bandwidth.

### Ethernet Virtual Private Line (EVPL) Service

FirstLight's EVPL service offers dedicated point-to-multipoint connectivity which allows organizations to easily and efficiently connect multiple locations. This service provides symmetrical, full-duplex, guaranteed bandwidth.

### Ethernet Local Area Network (E-LAN) Service

FirstLight's E-LAN service offers multipoint-to-multipoint connectivity, which allows you to easily and seamlessly extend the LAN across the wide area to connect all of your remote offices. E-LAN is a fully meshed solution offering symmetrical, full-duplex, guaranteed bandwidth.

### Ethernet Access

Allows service providers to leverage FirstLight's fiber-based network to extend their Ethernet reach to seamlessly serve customers outside of their service territory. Ethernet Access service is available as a port-based service at the UNI (Access EPL); and a VLAN-Aware service at the UNI (Access EVPL).

## Features

- Point-to-point and point-to-multipoint WAN topologies
- Standards-based IEEE Layer 2 Ethernet service
- Services delivered over fiber
- Supports all IP protocols, including IPv4 and IPv6
- Multiple CoS options to ensure that latency and jitter requirements are met

## Technical Specifications

| Attribute   | Ethernet Private Line (EPL)  | Ethernet Virtual Private Line (EVPL)                        | Ethernet Local Area Network (E-LAN)                         |
|---|--|---|---|
| Architecture  | Point-to-point   | Point-to-multipoint   | Multipoint-to-multipoint                                    |
| Throughput  | 5 Mbps – 100 Gbps  | 5 Mbps – 10 Gbps  | 5 Mbps – 10 Gbps  |
| Physical Interfaces   | 10Base-T, 100Base-TX, 1000Base-T,-SX,-LX,-ZX, 10Gbase-SX,LX, 100GBase-SR,-LR,-ER | 10Base-T, 100Base-TX, 1000Base-T,-SX,-LX,-ZX, 10Gbase-SX,LX | 10Base-T, 100Base-TX, 1000Base-T,-SX,-LX,-ZX, 10Gbase-SX,LX |
| Monitoring  | 24x7 monitoring from our NOC   | 24x7 monitoring from our NOC                                | 24x7 monitoring from our NOC                                |
| Availability  | Available at most on-net locations   | Available at most on-net locations                          | Available at most on-net locations                          |
| EVC Bandwidth Profile: Committed Information Rate (CIR) and Committed Burst Rate(CBR) | CIR and CBR are specified and are the same                                       | CIR and CBR are specified                                   | CIR and CBR are specified                                   |
| Class of Service (CoS)  | Multiple CoS available   | Multiple CoS available                                      | Multiple CoS available                                      |
| VLAN ID Preservation  | Yes  | No  | N/A   |
| VLAN CoS Preservation   | Yes  | Yes   | Yes   |
| Spanning Tree Handling  | Pass   | Discard   | Discard   |
| Pause (802.3x) Handling   | Pass   | Discard   | Discard   |
| Link Aggregation  | Active/Standby   | Active/Standby  | Active/Standby  |
| CDP Handling  | Pass   | Discard   | Discard   |
| Maximum Transmission Unit (MTU) Size  | 2000 bytes (default); larger sized frames supported on ICB                       | 2000 bytes (default); larger sized frames supported on ICB  | 2000 bytes (default); larger sized frames supported on ICB  |

## Applications Supported

FirstLight Ethernet service can accommodate a wide range of business applications including:

- ✓ Voice, data and video
- ✓ Internet access
- ✓ Offsite data storage
- ✓ Data and call center connectivity
- ✓ Cloud computing
- ✓ Distributed networking



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For more information on our ethernet solutions, call FirstLight at  
**1-800-461-4863** or visit **FirstLight.net**.