

Customer FAQ

Ethernet

Arelion Ethernet

Frequently Asked Questions

Where can Arelion deliver the service – in other words, where are Arelion’s Points of Presence (PoPs) located?

Arelion is a global network operator with:

- 350+ PoPs globally (and growing every year)
- Over 450 certified local access network partners around the world
- 180+ NNI agreements
- Live MPLS end points in 90+ countries

For more details, see: [Arelion Global Fiber Network](#) and [Network News](#).

What speed/bandwidth options are available - min, max and increments?

Arelion offers a broad range of Ethernet bandwidth options, starting from 10 Mbps and scaling up to 400 Gbps, with granular increments of 10 Mbps, 100 Mbps, 1 Gbps, and 10 Gbps. These options are available with a variety of optical and electrical interfaces supporting 1GE, 10GE, 100GE and 400GE.

*Note: Bandwidths from 40 Gbps to 100 Gbps can be delivered via 100GE and 400GE ports, subject to technical validation.

Ethernet Virtual Circuit (EVC) bandwidth options Mbps:

EVC bandwidth (Mbps) in increments	10	20	30	40	50	60	70	80	90
	100	200	300	400	500	600	700	800	900
	1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000
	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000
	100,000								

Port types (standard interfaces supported):

Port types			
Electrical RJ45	100/1000Base-T		
Optical 1G LC	1000Base-SX	1000Base-LX	1000Base-EX
Optical 10G LC	10GBase-LR	10GBase-ER	
Optical 100G LC	100GBase-LR4	100GBase-ER4	100GBase-CWDM4

Does Arelion support jumbo frames and Layer 2 control protocol transparency, even in the last mile?

Arelion's Ethernet solution supports jumbo frames up to 9100 bytes across our MPLS backbone network. Layer 2 control protocol transparency is fully supported, including last mile access, through Arelion's **Advanced Ethernet** option. This option includes the installation of a Network Interface Device (NID) at the customer site, configured in tunneling mode to enable Layer 2 control protocol transparency.

For the **Basic Ethernet** option, which does not include a NID, Layer 2 control protocol transparency can be validated on an Individual Case Basis (ICB) for both on-net and last mile scenarios.

Arelion has implemented a rigorous onboarding process for third-party last mile access providers. All supplier partners must undergo a strict certification process. While not all providers can support jumbo frames in the last mile, Arelion will make every effort to source a suitable supplier to meet customer requirements at the time of order.

What SLA availability guarantees does Arelion offer, with and without the last mile and a NID?

Arelion's MPLS backbone is designed for high resilience, offering 99.999% backbone availability for services running across it. This ensures robust protection against network faults and fiber cuts, providing customers with added peace of mind.

For Ethernet services, Arelion offers two levels of service availability:

Basic Ethernet

Arelion guarantees **99.99% PoP-to-PoP** availability for customers who do not require managed Network Interface Devices (NIDs). For SLA measurement, the service demarcation point is the customer-facing port on Arelion's aggregation switch or router within the MPLS PoP. This excludes any cross-connects or third-party access tails.

Advanced Ethernet

With a managed NID installed at the customer premises, Arelion offers **99.5% end-to-end** availability. For SLA measurement, the demarcation point is the LAN-side port of the NID, and the SLA includes the NID itself, any cross-connects, and third-party access tails.

What is the latency SLA on both primary and/or the protected paths?

Arelion's core MPLS backbone is engineered to support low-latency applications, with latency SLA commitments available for EVPL and ELAN Ethernet services, as detailed in the figures published on our customer portal.

To further optimize latency, Arelion has implemented **segment routing** and **Flex-Algo**, specifically tuned for low-latency performance. As a result, all Ethernet services are provisioned on our low-latency routing plane and dynamically directed along the lowest-latency path available.

Is Arelion's Ethernet MEF certified?

Arelion Ethernet services are MEF 3.0 certified: [MEF Services Certification Registry](#).

We adhere to industry standards to simplify implementation and deployment for our customers, while also offering design flexibility to support various network topologies.

EVPL service

Arelion's EVPL supports point-to-point and hub-and-spoke configurations, aligned with MEF E-Line EPL and EVPL definitions, available in both port-mode and VLAN-mode.

When using port-mode UNIs, the EVPL service provides a compliant EPL offering with partial Layer 2 Control Protocol (L2CP) transparency on certain routes. Full L2CP transparency can be requested as an option and is available when the Advanced Ethernet service, including a NID, is ordered.

ELAN service

Arelion's ELAN service supports any-to-any configurations, in accordance with MEF EP-LAN and EVP-LAN definitions, also available in port-mode and VLAN-Mode.

E-Access for wholesale customers

For wholesale partners with an External Network-to-Network Interface (ENNI) with Arelion, we offer E-Access services with handover on the ENNI UNI.

Table below summarizes the options available:

Ethernet topologies	Arelion products	MEF-defined services	Also known as
	EVPL	E-LINE – EPL E-LINE – EVPL	Point-to-point Hub-to-spoke
	ELAN	ELAN – EP-LAN ELAN – EVP-LAN	Any-to-any VPLS

What is the difference between Ethernet over SDH and Ethernet over MPLS?

Ethernet services can be delivered over circuit-switched technologies such as SDH, or packet-switched technologies like MPLS.

- **Circuit-switched networks (e.g., SDH)** require dedicated physical point-to-point connections and support **EPL (Ethernet Private Line)** topologies. However, they are more vulnerable to fiber cuts and other network-related failures due to their rigid infrastructure.
- **Packet-switched networks (e.g., MPLS)** use label switching to efficiently route traffic between multiple locations. MPLS offers high reliability, while Ethernet provides affordability and simplicity.

Ethernet over MPLS enables transparent Layer 2 Ethernet frame transport across the MPLS network, combining the benefits of Ethernet with the resilience and reliability of MPLS. This setup supports multiple topologies, including:

- **Point-to-point**
- **Point-to-multipoint**
- **Any-to-any**

In a point-to-point configuration, Arelion supports:

- **EPL** when configured in **port-mode**
- **EVPL (Ethernet Virtual Private Line)** when configured in **VLAN-mode**

Arelion collectively refers to these configurations as **EVPL**.

*Note: EPL service includes partial Layer 2 Control Protocol (L2CP) transparency on certain routes. Full L2CP transparency can be achieved when the **Advanced Ethernet** service is ordered, with the NID device configured in tunnelling mode.

How fast can Arelion provide the solution?

Arelion's on-net Ethernet **EVPL** and **ELAN** services can be delivered in as little as **three weeks**, including the physical connections required to activate the initial service (e.g., port or cross-connects*).

Once the physical infrastructure is in place, additional logical services—such as extra VLANs or **Cloud Connect**—can typically be provisioned within **seven calendar days**.

If **third-party access** is requested as part of the order, delivery timelines will depend on the supplier's lead times, which generally range from **60 to 90 calendar days**. In cases where delivery is affected by civil works or permit delays, longer lead times may apply.

*Note: Cross-connect delivery lead times depend on access arrangements and the availability of a Letter of Authorization (LOA).

Is Ethernet a protected service?

Ethernet services delivered over Arelion's MPLS backbone are inherently resilient due to the robust design of the underlying network. This architecture provides strong protection against network failures and fiber cuts.

With multiple diverse physical routes between each Arelion Point of Presence (PoP), we are committed to delivering optimal performance and reliability. The presence of several diverse paths between key regions—such as Singapore and Europe, and across the Atlantic—demonstrates the strength and redundancy of our global network.

From a pricing perspective, is Arelion's Ethernet a competitive solution?

Ethernet is one of the most cost-effective network technologies available, simple to operate, manage, and maintain. With service coverage in over **129 countries** and more than **180 third-party ENNI agreements**, Arelion is well positioned to offer **competitive pricing** almost anywhere in the world.

Additionally, our **MSOP (Multiple Services over One Port)** proposition allows customers to configure multiple Arelion services, such as **EVPL**, **Cloud Connect**, or **IP**, on a single interconnect port. This maximizes the value of existing interconnection points and eliminates the need for additional physical interconnects when expanding service.

Product news – EVPL diversity services

What is new with the Arelion's EVPL diversity feature?

2×EVPL services can be made *fully diverse* using SR-PCE disjoint policy configuration, ensuring that no paths overlap. This removes the need for any manual intervention during the service lifecycle to reroute traffic.

Currently, this capability is supported only on a limited set of routers. Please contact your Account Manager (AM) for more information.

Is there a way for customers to check estimated RTD in advance?

We currently do not have a method to calculate latency for each path before the policy is configured. While EVPL is designed to provide the required diversity, the limited route options in certain segments mean that we may not always meet latency requirements when using a disjoint-path policy.

Should A or B end of both EVPLs be on same sites/routers?

Both ends of EVPL services can be on different routers, sites or even cities. Diversity can be achieved regardless. If both EVPLs are present on same ECP, VLAN mode is preferred.

Can customers order EVPL diversity via portal?

As the solution requires SE validation, it cannot be ordered via My Arelion portal. For ordering, please contact directly your account manager.
