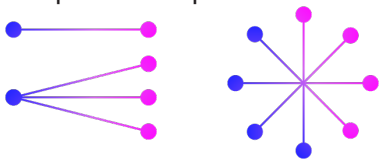
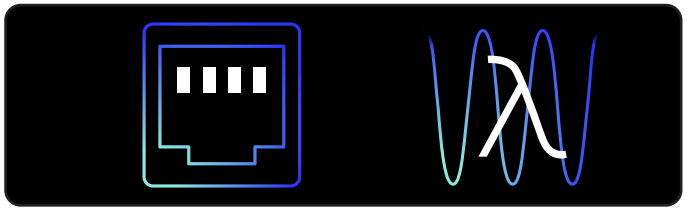
Ethernet vs Wavelengths at the glance

Two widely established Arelion products, but what are the differences?

Ethernet service options - all protected





Wavelengths service options



Product characteristics	Ethernet	Wavelengths
Routing	Over switched MPLS network with committed bandwidth	Dedicated fibre
Protection	Protected as standard on-net – Layer 2 service dynamically routed to avoid any network or fibre failures	Unprotected as standard – single fibre route Protected and dual-link available
Topology	EVPL: point-to-point/hub & spoke ELAN: any-to-any	Point-to-point
Port interface / Service presentation	100/1000BaseT, 1000Base SX/LX/EX, 10GBase LR/ER, 100GBase LR4/ER4/CWDM4, 400GBaseFR4	1000BaseLX/LH/ZX, 10GBaseLR/ER, 100GBaseLR4, 100GBaseLR4/ ER4, 400GBaseFR4
Bandwidth speeds	10Mbps to 400Gbps (bandwidth increments available)	1Gbps, 10Gbps, 100Gbps, 400Gbps
Throughput	Based on frame size	Full
Latency	Predictable within limits – available via MyArelion portal	Predictable
Frame loss	< 0.1%	n/a
Rerouting / specific routing	150ms including link loss propagation* Fixed path on primary route / on request	n/a on unprotected Wave Sub 50ms for protected Wave / on request
Availability	99.999% backbone, 99.99% PoP-to-PoP and 99.5%** end-to-end	99.4% unprotected, 99.99% protected, 99.99% dual-link
Transparency	On-request, or with NID***	Full
Jumbo frames support	9100 MTU on-net and off-net based on supplier capabilities	9600 MTU on-net
Access tail (off-net)	450 certified local partners; 180+ supplier ENNIs	Dark fiber/Wavelengths
Additional features	Fast delivery – ports available on-net Managed NID incl. Service Performance via portal, MSOP, 3xCoS levels	Client-side monitoring
Use-cases	• Secure business critical connectivity, DC-to-DC and corporate hubs • Universal technology, easy to implement – maintain control of IP • Where long fibre paths dramatically increase the likelihood of outages and performance issues – protected EVPL offers peace of mind	• For customers who want to build and manage their own networks, possible to mix Wavelengths from several providers to design optimal resiliency • High bandwidth requirements • Fully transparent and nailed down/defined network path

Distance dependent – customer BFD timers should be set to 300/900 or 100/300

***99.5% end to end availability SLA for customers with advanced managed NID (Network Interface Device) including NID and Access Tail*

****Advanced NID Cisco NCS520 offers capability to configure in tunnelling mode as transparent service. MAC Sec transparency is supported with the NID and on-net (on request)*

Arelion