✳ Arelion

Arelion Completes First Multi-Vendor, Multi-Layer Field Trial Using Acacia Bright 400ZR+ Modules and Cisco Routers

Arelion is the first network operator to successfully demonstrate 400G coherent connections between Cisco 8000 and NCS 5700 router platforms over third-party open line system using Bright 400ZR+ modules supporting high transmit power

Stockholm, 20 October 2022 - [Arelion](#) (formerly Telia Carrier) announced that it has taken the next step in converging its IP and optical networking layers through a series of trials conducted with Acacia and Cisco over multiple, third-party, open line systems. On a live fiber route with existing ROADM infrastructure between Hamburg and Copenhagen, Arelion successfully leveraged Acacia Bright 400ZR+ QSFP-DD coherent modules with greater than +1 dBm transmit power between Cisco 8000 and NCS 5700 router platforms. The trial demonstrated the seamless integration of Routed Optical Networking with DWDM transponders carrying wavelength services.

Acacia's Bright 400ZR+ pluggable coherent optical modules can plug into Cisco routers, enabling Arelion's further adoption of the simpler and more scalable architecture of Routed Optical Networking, combining innovations in silicon, optics and routing systems. This architecture simplifies the network layer stack, and meet the increasing bandwidth demands of Arelion's customers while greatly reducing capital and operational expenditures.

Through this demonstration of 400G coherent connections, Arelion has also demonstrated the interworking on brownfield long-haul applications built with third-party optical line systems. Arelion will continue its organic expansion providing its service provider and enterprise customers with the opportunity to improved customer experience, efficient connectivity investment and better pricing, further realizing the vision of Arelion's early open optics and open line system investments.

"Multi-layer architecture has always been challenging to scale and operate due to decades of accumulated complexity. With this latest trial, Arelion demonstrated the possibility to simplify conversion and interoperability, bringing us closer to Routed Optical Networking that evolves cost structures, scalability and efficiency," said Dariusz Solowiej, VP Network Technology & Customer Operations at Arelion. "400G coherent pluggables will help our customers secure high-performance connectivity at the lowest cost and help us grow our networks in scale as we continue to connect the world."

Findings and key highlights from the Bright ZR+ trials include:

- The performance far exceeds that of the OpenZR+ specification

- In addition to a rich fault and performance monitoring capabilities, Cisco IOS XR brings significant operational benefits in the tuning of launch power as infrastructure conditions change over time
- Plug-and-Play experience in seamlessly running over multiple, third-party, vendor open line systems with existing ROADM infrastructure
- Consistent functionality across Cisco 8000 and NCS 5700 mass-scale routing platforms

"As the latest entrant in our comprehensive family of 400G pluggables, the Bright 400ZR+ QSFP-DD is designed to expand optical transceiver applications by supporting higher transmit power and performance consistent with legacy coherent optics," Benny Mikkelsen, Vice President/Chief Technology Officer at Acacia, now part of Cisco. "The ability of these solutions to meet the varying needs of network operators, while driving economies of scale on a common technology platform, is a key advantage for providers such as Arelion to grow their networks."

"The convergence of IP and optical networks provides a revolutionary reduction in network cost and simplifies management of the network," said Bill Gartner, Senior Vice President/GM of the Optical Systems & Optics Group at Cisco. "This will enable Arelion to cost-effectively scale their network as bandwidth demands increase over time, enabling them to maintain their growth and protect their investment over the next 10-15 years."

With this demonstration, Arelion plans to provide its North American and European customers with enhanced access to Arelion's number one ranked Internet backbone, AS1299, as well as Arelion's portfolio of leading IP and optical technology services, including high-speed IP Transit, Cloud Connect, Wavelengths, Ethernet and SD-WAN.

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About Arelion

Arelion solves global connectivity challenges for multinational enterprises whose businesses rely on digital infrastructure. On top of the world's #1 ranked IP backbone and a unique ecosystem of cloud and network service providers, we provide an award-winning customer experience to customers in more than 125 countries worldwide. Our global Internet services connect more than 700 cloud, security and content providers with low latency. For further resilience, our private Cloud Connect service connects directly to Amazon Web Services, Microsoft Azure, Google Cloud, IBM Cloud and Oracle cloud across North America, Europe and Asia. Discover more at www.arelion.com and follow us on LinkedIn and Twitter.

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