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Infinera massively increases speed on data center interconnect product

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September 22, 2016 2PM Sean Mitchell

Infinera has introduced the second generation of its Cloud Xpress product range.

The vendor produces devices that sits at each end of an optical network. They turn data into light waves and vice versa at the other end.

These have historically run under oceans or on land over vast distances.

The company pioneered a new segment called compact Data Center Interconnect (DCI) last year. They called the products Cloud Xpress. These are similar to their original products although focused on smaller distances. Often 80 to 100 kilometers.

These Cloud Xpress devices are focused on applications for connecting data centers or campuses across town. Within the industry, it's known as 'Metro' connectivity.

The cost of these devices is significantly lower than the longer distance solutions, plus the form factor is significantly smaller, ideal for installation in roadside cabinets or branch data centers.

Today they've introduced their second generation of these Cloud Xpress devices.

Key changes:

- Throughput speed increased to 1.2 terabits per second (Tb/s) across a super-channel in only one rack unit. Enabling up to 27.6 Tb/s on a single fiber pair. This contrasts with alternative solutions available today that require at least six fiber pairs fed into an external multiplexer daisy chained into an external amplifier resulting in more complex configuration and ongoing maintenance.
- Next generation FlexCoherent Processor.
- Fourth-generation photonic integrated circuit (PIC).
- Incorporation of Infinera's new Instant Bandwidth product offering, a software-activated bandwidth delivery technology that provides a success-based business model while lowering operational costs.
- Lower power consumption and built-in security with state of the art in-flight wire-speed data encryption.
- Like all Cloud Xpress products, the Cloud Xpress 2 is designed for plug-and-play with simplified provisioning and support for data center automation. Featuring built-in optical amplification for superior reach, the Cloud Xpress Family can transmit 1.2 Tb/s up to 130 kilometers using a single fiber pair without an external multiplexer or external amplifier, resulting in fewer fibers and less space.

"Cloud and content providers are the first to deploy any new technology that helps them better address the rapid growth of their networks," says Andrew Schmitt, founder and lead analyst at Signal AI.

"Infinera was first to market with a purpose-built DCI platform that did exactly that, and it essentially owns the market for this type of equipment today. The design of Infinera's new Cloud Xpress 2 raises the bar again with the density, capacity and operational simplicity that helps cloud and content providers meet the scaling challenge."

Dr Stuart Elby, Infinera's senior vice president, Data Center Business Group, says Cloud Xpress 2 is an important milestone for Infinera as it raises the bar for data center interconnect platforms.

"This is the first Infinera product based on our groundbreaking Infinite Capacity Engine, which sets new standards for optical performance and efficiency," Elby says.

"With the Infinite Capacity Engine, Cloud Xpress 2 delivers advanced levels of scalability and low power along with simplicity, automation and built-in security."