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Infinera Introduces Cloud Xpress 2 with Infinite Capacity Engine; Extends leadership in data center interconnect
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Infinera, a provider of Intelligent Transport Networks, introduced the Cloud Xpress 2 addressing the market demand for scalable 100 gigabit Ethernet (100GbE) data center interconnect (DCI) over multi-terabit optical links



Dr. Stuart Elby, Infinera's Senior Vice President, Data Center Business Group

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Infinera was first to market with a purpose-built compact DCI product with Cloud Xpress and is the clear market share leader in this category according to Signal AI. Cloud Xpress 2, the second generation of the Cloud Xpress Family, once again raises the bar for compact DCI. By incorporating Infinera's groundbreaking Infinite Capacity Engine into Cloud Xpress 2, Infinera extends its optical leadership in DCI increasing density by 4.8 times while building on the Cloud Xpress Family's advantages of simplicity, reliability and automation.

Cloud networks continue to expand rapidly, driven by the exponential growth in cloud-based content and services, from streaming video to the Internet of Things. Cloud data centers are rapidly migrating to 25 GbE server uplinks and 100 GbE fabrics between server racks, which is driving the need for scalable optical DCI to interconnect these data centers. Cloud Xpress 2 delivers simple, secure, efficient 100 GbE DCI scaling that enables internet content provider networks to keep up with these demands.

With the Infinite Capacity Engine, Cloud Xpress 2 delivers a 1.2 terabit per second (Tb/s) super-channel in only one rack unit while enabling best in class fiber capacity with up to 27.6 Tb/s on a single fiber pair. The Infinite Capacity Engine is powered by the advanced electronics of Infinera's next generation FlexCoherent® Processor and the cutting-edge photonics of Infinera's fourth-

generation photonic integrated circuit (PIC). Cloud Xpress 2 incorporates Infinera's unique Instant Bandwidth product offering, a software-activated bandwidth delivery technology that provides a success-based business model while lowering operational costs. In addition, the Infinite Capacity Engine supports low power consumption and built-in security with state of the art in-flight wire-speed data encryption. Encryption is becoming a critical requirement for network operators and Infinera was the first to deliver a compact DCI solution with built-in encryption on the Cloud Xpress. The Cloud Xpress 2 now extends the same encryption solution and scales it to a new level of capacity.

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. 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. Infinera continues to innovate with the Cloud Xpress 2 enabling network operators to automate and scale data centers, delivering critical capabilities such as topology auto-discovery, zero-touch provisioning support, standard application programming interfaces for programmability and streaming telemetry, and stackability with multiple chassis to be managed as a single system. Finally, by minimizing the number of components in the system and using ultra-reliable PIC technology, Cloud Xpress 2 is designed to enable DCI with high reliability.

"Cloud and content providers are the first to deploy any new technology that helps them better address the rapid growth of their networks," said 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."

"Cloud Xpress 2 is an important milestone for Infinera as it raises the bar for data center interconnect platforms," said Dr. Stuart Elby, Infinera's Senior Vice President, Data Center Business Group. "This is the first Infinera product based on our groundbreaking Infinite Capacity Engine, which sets new standards for optical performance and efficiency. With the Infinite Capacity Engine, Cloud Xpress 2 delivers advanced levels of scalability and low power along with simplicity, automation and built-in security."