



## **Infinera Introduces Two New Photonic Integrated Circuits to Support New Layer C and Layer T Network Model**

**Sunnyvale, Calif., – March 23, 2015** – Infinera, provider of [Intelligent Transport Networks](#), introduced two photonic integrated circuits (PICs) for new optical transport applications as scale and virtualization drive change in network architectures. The new PICs being introduced include the sliceable enhanced PIC, ePIC-500, and the application-optimized PIC, oPIC-100.

### **The Emergence of Layer C and Layer T**

In a world where Cloud services are growing quickly and high capacity connectivity is paramount, service providers must scale, simplify and increase the flexibility of their networks. Network Function Virtualization (NFV) provides a means to address these needs for the upper layers of the network through the migration of network functions from dedicated appliances to software services on x86 hardware within Cloud data centers. This Cloud services layer supports NFV plus other Cloud delivered services (Layer C). In order to support Layer C, Cloud data centers and end users need to be interconnected by a highly scalable and flexible transport network (Layer T).

Scalable photonics is the foundation of Layer T and must provide more capacity per line card and system while simplifying the network – fewer boxes, fibers and modules, and less space, power and fewer manual processes. PICs are integral to the evolution of the transport network providing significant benefits when integrated into a packet-optical DWDM transport system for an efficient Layer T, ultimately allowing Layer C to thrive.

### **Infinera Sliceable Photonics Technology for Metro**

The new Infinera sliceable photonics technology provides a large pool of capacity in a PIC that can be divided at a granular optical level with each slice capable of being routed in a different direction as it exits the line card or the system housing it, usually at the hub. The recipient of the individual slice is a line card or system that matches the capacity, usually at the spoke. The new ePIC-500 provides sliceable 500G capacity at the hub location, while the new oPIC-100 provides 100G capacity at the spoke location. While these two new PICs are applicable across all network locations they were developed specifically to support Layer T in the metro.

Infinera modeled a wide range of applications from metro aggregation to regional long-haul where hub-and-spoke, mesh or ring topologies are common. When using the new PICs, these models showed an estimated average reduction of 28 percent in modules, 31 percent in power and 45 percent in bandwidth inefficiencies as compared to conventional, commercial off the shelf technologies that deliver single-wavelength or super-channel solutions for 100G, 200G or 400G.

“We find the Infinera sliceable photonics technology to be very relevant for network architectures and have already tested this in our lab,” said Juan Pedro Fernández-Palacios, Senior Manager at Telefonica. “As Cloud services take off, it is imperative that transport networks be scalable yet granular and simple to operate. Enhancing the super-channel technology with slice-ability is the right approach to satisfy these needs simultaneously.”



"Infinera continues to leverage its expertise in photonics to provide operators tools to build optimized Transport Layer infrastructure," said Rick Talbot, principal analyst at Current Analysis. "We view sliceable photonics provided by the ePIC-500 and oPIC-100 as a significant step in providing flexible wavelength granularity for super-channels, allowing operators to lower the costs and complexities of transport while handling enormous traffic growth."

"Infinera has been shipping PICs in transport systems, that have been designed from the ground-up, for over a decade," said Dave Welch, co-founder and president at Infinera. "During this time the technology has surpassed over 1.5 billion hours of field operations. Sliceable photonics allows our customers to build networks with scale and flexibility for a wide variety of applications ranging from the metro to the long-haul. It provides a comprehensive tool set for us to be nimble and build market-specific platforms for Layer T as our customers' needs continue to evolve."

The new Infinera PICs are being developed for line cards and systems which are scheduled for delivery later this year.

For more information, visit [www.infinera.com/go/pic/index.php](http://www.infinera.com/go/pic/index.php).

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**About Infinera**

Infinera (NASDAQ: INFN) provides Intelligent Transport Networks for network operators, enabling reliable, easy to operate, high-capacity optical networks. Infinera leverages its unique large scale photonic integrated circuits to deliver innovative optical networking solutions for the most demanding network environments. Intelligent Transport Networks enable carriers, Cloud network operators, governments and enterprises to automate, converge and scale their data center, metro, long-haul and subsea optical networks. To learn more about Infinera visit [www.infinera.com](http://www.infinera.com), follow us on Twitter @Infinera and read our latest blog posts at [blog.infinera.com](http://blog.infinera.com).

This press release contains forward-looking statements including statements related to the benefits of the features and functionality of Infinera's products including those relating to PIC technology. These statements are not guarantees of results and should not be considered as an indication of future activity or future performance. Actual results may vary materially from these expectations as a result of various risks and uncertainties. Information about these risks and uncertainties, and other risks and uncertainties that affect Infinera's business, is contained in the risk factors section and other sections of Infinera's Annual Report on Form 10-K for the year ended December 27, 2014 as filed with the SEC on February 18, 2015, as well subsequent reports filed with or furnished to the SEC. These reports are available on Infinera's website at [www.infinera.com](http://www.infinera.com) and the SEC's website at [www.sec.gov](http://www.sec.gov). Infinera assumes no obligation to, and does not currently intend to, update any such forward-looking statements.

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