



## Infinera Introduces Instant Network and Leads the Way to Cognitive Networking

**Sunnyvale, Calif., – March 20, 2017, 8:00 a.m. EDT** – Infinera, a provider of [Intelligent Transport Networks](#), introduced Infinera Instant Network, the next generation of software defined capacity (SDC) for cloud scale networks and a necessary foundation for cognitive networking. Emerging 5G mobile services, the Internet of Things (IoT), streaming video, Carrier Ethernet and cloud-based on-demand business services require increased optical network agility. With Instant Network, service providers activate SDC when revenue-generating services demand it, reducing capital expenditures by diminishing idle optical network capacity and lowering business risk by shrinking the time between paying for capacity and activating revenue-generating services. Instant Network also enables service providers to accelerate service delivery and lower operational expenditures by automating optical capacity engineering and by reducing truck rolls to install additional hardware.

While the industry has made major strides in software-defined networking (SDN) to date, advancements have been around virtualizing and controlling Layer 1/2/3 services inside a fixed amount of optical capacity. Increasing optical capacity on conventional hardware-based transport systems can take months between forecasting and activating the optical capacity needed to deliver new services, which drives service providers to overprovision optical capacity by as much as 50 percent to ensure service delivery. Instant Network enables service providers to automate optical capacity engineering and scale optical capacity in minutes by using Infinera's Xceed and Digital Node Administrator (DNA) software. This allows service providers to closely match capacity deployment to the activation of revenue-generating services and to eliminate multiple planning and provisioning steps that previously required numerous manual tasks.

Instant Network builds on the success of Infinera [Instant Bandwidth](#), the industry's first solution for SDC, providing the foundation required to deliver cognitive networking. Infinera introduced Instant Bandwidth in 2012, enabling for the first time software activation of service-ready optical capacity in a few hours on networks powered by the DTN-X platform and equipped with Infinera's unique photonic integrated circuits (PICs). Infinera introduced Time-based Instant Bandwidth in 2015, enabling software activation of bandwidth licenses for a limited duration. To date, more than 60 of Infinera's customers use Instant Bandwidth, including half of DTN-X XTC customers, the top three subsea customers and over 60 percent of data center interconnect customers.

Instant Network amplifies the power of Instant Bandwidth by adding Bandwidth License Pools, Moveable Licenses and Automated Capacity Engineering (ACE), and by extending SDC to new Infinera platforms. These new platforms support flexible grid and sliceable 2.4 terabit super-channels powered by the Infinera Infinite Capacity Engine.

- **Bandwidth License Pools:** The new Bandwidth License Pool functionality enables service providers to activate capacity at the same time as an invoice is issued for that capacity, reducing capital expenditures for idle capacity. This new capability enables capacity to be deployed in minutes, while previously, service providers would purchase a



license before the capacity was software-activated, which resulted in deployment taking a few hours.

- **Moveable Licenses:** New Movable Licenses enable service providers to use software to move bandwidth licenses across the network as traffic conditions change or fiber cuts occur. Previously, licenses were fixed to a specific line module or platform. Moveable licenses reduce capital expenses by reducing idle capacity provisioned specifically for network resiliency and increase agility when responding to customer demands for new services.
- **Automated Capacity Engineering (ACE):** The new ACE application takes previously manual offline route and capacity planning processes and implements those algorithms in a microservices-based path computation element (PCE). ACE understands optical impairments and computes optimal Layer 0 routes between nodes across multiple paths, including automatic routing and wavelength assignment with multiple path constraints such as traffic engineering cost, distance and latency.

The future of the Intelligent Transport Network is cognitive networking, which includes advanced analytics, machine learning from streams of network telemetry data, autonomous operation of routine tasks, predictive analysis of network problems before they occur and proactive recommendations for network optimization to further reduce operational expense and improve service reliability. Instant Network builds a critical foundation for cognitive networking, including implementing and advancing the industry's only software defined capacity offering.

"Our international customers expect on-demand capacity across our global network," said Darrin Webb, Executive Director of International Operations and Services at Telstra, a leading telecommunications and technology company. "The scale and diversity of our subsea cable network in the Asia Pacific region puts us in a strong position to invest in technologies that deliver on this requirement, such as our new 'Always On' service guarantee, which provides world-first assured availability across Asia's busiest subsea cable routes, and aligns with Infinera's vision for its Instant Network."

"Many vendors are trialing new software licensing models in the router/switch world, and my observation is that they have seen only limited success," stated Michael Howard, senior research analyst and advisor, carrier networks, at IHS Markit. "In the optical transport world, Infinera seems to be the one vendor that has been quite successful in implementing software-based licensing and delivering on-demand, software defined capacity, with a large number of their customers actively deploying it today."

"Capacity engineering is now a major challenge for network operators as demands for more agile connectivity increase," said Andrew Schmitt, founder at Signal AI. "Infinera's Instant Network evolves its existing solutions to automate capacity engineering in a way that no other architecture can match by combining high-capacity integrated photonics and a unique software approach."

"Carriers are looking for ways to reduce the time to recognize revenue for services," said Don Frey, principal analyst at Ovum. "Infinera's first step was Instant Bandwidth. Now Infinera's Instant Network, Xceed Software Suite, and Infinite Capacity Engine create a killer combination to uniquely address carrier's requirement to quickly address a customer's bandwidth need."



“Infinera is committed to providing our customers with innovative solutions to help them win in the markets they serve,” said Dr. Dave Welch, Infinera co-founder and president. “Software defined capacity is a requirement to realize the benefits envisioned by SDN and network functions virtualization. Infinera Instant Network extends our success with Instant Bandwidth, leading the market for software defined capacity while lighting the way to cognitive networking.”

Infinera Instant Network capabilities are planned across the Infinera DNA software and the Xceed Software Suite. Instant Network Bandwidth License Pool and Moveable Licenses are available now. ACE is planned for 2018.

### Additional Resources

- [Instant Network web page](#)
- [ACG Market Impact Report: Infinera Instant Network](#)
- [Infinera Instant Network brochure](#)
- [Infinera Instant Bandwidth brochure](#)
- [The Five Steps to Cognitive Networking \(Part 1 of 2\)](#)
- [The Five Steps to Cognitive Networking \(Part 2 of 2\)](#)

### Contacts:

<i>Media:</i> Anna Vue Tel. +1 (916) 595-8157 <a href="mailto:avue@infinera.com">avue@infinera.com</a>	<i>Investors:</i> Jeff Hustis Tel: + 1 (408) 213-7150 <a href="mailto:jhustis@infinera.com">jhustis@infinera.com</a>
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### About Infinera

Infinera (NASDAQ: INFN) provides Intelligent Transport Networks, enabling carriers, cloud operators, governments and enterprises to scale network bandwidth, accelerate service innovation and automate optical network operations. Infinera’s end-to-end packet-optical portfolio is designed for long-haul, subsea, data center interconnect and metro applications. Infinera’s unique large scale photonic integrated circuits enable innovative optical networking solutions for the most demanding 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 [www.infinera.com/blog](http://www.infinera.com/blog).

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This press release contains forward-looking statements relating to: the economic, operational and technical benefits provided by deploying Infinera products and solutions; the timing of products becoming generally available; and the potential growth in Infinera’s addressable market. 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 31, 2016 as filed with the SEC on February 23, 2017, 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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