



## Infinera and Canalink Validate Infinite Capacity Engine Over Subsea Cable

**Sunnyvale, Calif., – May 9, 2017, 8:00 a.m. EDT** – Infinera, a provider of [Intelligent Transport Networks](#), announced a successful subsea field test with Canalink across its subsea cable. The test, conducted with the Infinera Infinite Capacity Engine (ICE4) and featuring Infinera's fourth-generation photonic integrated circuit (PIC), demonstrated the capability to upgrade the cable capacity 13-fold.

Canalink, a wholly-owned subsidiary of the ITER group, owns a system of undersea fiber optic cables that link the Canary Islands with the Iberian Peninsula and the western coast of Africa. Canalink also has exchange agreements with other operators, and participates in undersea cable consortia aiming to connect Europe with Africa, transforming Tenerife, and the D-Alix datacenter specifically, into a node for the massive exchange of neutral data traffic.

The test was conducted on Canalink's 1,393 kilometer subsea cable, linking the Conil landing point on the Spanish mainland with Tenerife in the Canary Islands. Conducted across three fully-loaded channel plans at 37.5 gigahertz (GHz), 50 GHz and 25 GHz channel spacing, the test validated advanced compensation techniques and new modulation schemes including:

- Software-programmable quadrature phase-shift keying (QPSK) and 8QAM (quadrature amplitude modulation)
- Nyquist subcarriers, which offer an approximately 20 percent increase in reach compared to single-carrier transmission
- Soft-decision forward error correction (SD-FEC) gain sharing, in which high-performance carriers can be paired with lower-performance carriers, mitigating the effects of optical non-linearities and increasing system capacity

“The successful field test with Infinera demonstrated that we can achieve approximately 13 times more capacity than we initially estimated on our subsea link,” said Carlos Suárez, General Director of Canalink. “Infinera's Infinite Capacity Engine and its innovative technology designed for subsea operators prove that its deployment can enable us to protect our investment and maximize the use of our infrastructure.”

“Infinera is committed to bringing advanced capabilities to the subsea market, and we are pleased to enable Canalink to maximize capacity on their systems,” said Scott Jackson, Infinera Vice President, Subsea Business Group. “This test validates the benefits of ICE4 Nyquist subcarriers and SD-FEC gain sharing, enabling subsea cables to move to higher modulation formats for increased fiber capacity and greater return on the asset.”

Infinera introduced the Infinite Capacity Engine-based subsea platforms, including the XTS-3300 and XTS-3600 meshponders, and upgraded its DTN-X XTC Series to 12 terabits per second (Tb/s) earlier this year. The new platforms feature Infinera's Advanced Coherent Toolkit (ACT), which delivers innovations including Nyquist subcarriers, SD-FEC gain sharing, and matrix-enhanced phase-shift keying (ME-PSK).



#### Additional Resources

- [Infinera Introduces Next Step Function in Optical Networking with the Groundbreaking Infinite Capacity Engine](#)
- [Infinera Transforms Subsea Networks to Cloud Scale with New DTN-X Platforms](#)
- [Infinera Subsea Networks](#)

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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 including, but not limited to the potential operational, technical and economic benefits of deploying Infinera products and solutions on subsea networks. 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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