

## **OFS to Present Live Demonstration of TeraWave™ ULL Optical Fiber at OFC 2016**

**OFC 2016, Booth 2633, Anaheim, California, March 22, 2016** - OFS, a leading designer, manufacturer and supplier of innovative fiber optic network products and solutions will showcase a live demonstration using a combination of Ciena's Waveserver™ stackable interconnect system and OFS' TeraWave™ ULL fiber, illustrating delivery of lower cost per bit transport for customers, with maximum capacity per fiber across extended distances. TeraWave ULL fiber has the largest available effective area for a terrestrial fiber, allowing maximum suppression of non-linear penalties that limit the reach of high capacity, coherent modulation formats. The cost-per-bit from procuring and fully lighting a cabled TeraWave ULL fiber can be 40 to 80% lower than the cost-per-bit of fully lighting a legacy G.652 fiber over an erbium-doped fiber amplifier (EDFA) chain, typical of the installed base, by avoiding the high cost of regeneration.

"One of the most significant challenges in modern transport engineering is maintaining low cost-per-bit when connecting cloud datacenters," said Robert Lingle, Jr., Director of Systems & Technology Strategy at OFS. "Traffic is growing inside the networks of cloud content providers at a compound annual growth rate of nearly 50%, while traditional network traffic grows closer to a 30% compound annual growth rate. High capacity DWDM transport is needed between facilities across a metro area from 10 to 150km as well as across a continent—up to 4000 kilometers."

This joint demonstration shows both 200G (16QAM) and 150Gb/s (4D-8QAM) wavelengths being generated on the Waveserver platform in Ciena's FutureLab (#2673) on the OFC exhibition floor and routed live to a Waveserver platform on OFS' booth (#2633) – without Raman or in-line amplification. Owing to its ultra-low nominal loss of 0.168 dB/km and its large effective area of 125 microns<sup>2</sup>, TeraWave ULL ITU-T G.654.B fiber allows coherent wavelengths to travel 37% further than legacy G.652 fiber does. For point-to-point DCI applications, this means TeraWave ULL fiber can support simple DCI deployments using 16QAM at distances

greater than 250 kilometers without requiring Raman or any in-line amplification. Adding Raman amplification, it is estimated that the demo would have achieved in excess of 300 km.

Even greater benefits are expected for long distance deployments. Operators can use TeraWave ULL fiber to run their wavelengths at 65% longer link distances over amplified (EDFA-only or hybrid Raman) spans prior to regeneration compared to legacy G.652 fiber cable. Using Ciena's Smart Raman and assuming full-fill system conditions including end-of-life margin Wavelogic 3 Extreme 200Gb/s wavelengths (16QAM) and 150Gb/s wavelengths (4D-8QAM) can extend to 2000km and 4800km, respectively, over TeraWave ULL fiber with 98 km hut spacing.

OFS' TeraWave ULL fiber helps to cost effectively achieve the longest un-regenerated reach for both traditional and cloud transport networks, where maximum capacity can be achieved by using advanced coherent modulation formats beyond Quadrature Phase Shift Keying (QPSK) modulation.

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For more information on these and other OFS products, please visit OFS booth #2633 or visit [www.ofsoptics.com](http://www.ofsoptics.com).

## **About OFS**

OFS is a world-leading designer, manufacturer and provider of optical fiber, optical fiber cable, connectivity, FTTX and specialty photonics solutions. Our marketing, sales, manufacturing and research teams provide forward-looking, innovative products and solutions in areas including Telecommunications, Medicine, Industrial Automation, Sensing, Government, Aerospace and Defense applications. We provide reliable, cost effective optical solutions to enable our customers to meet the needs of today's and tomorrow's digital and energy consumers and businesses.

OFS' corporate lineage dates back to 1876 and includes technology powerhouses such as AT&T and Lucent Technologies. Today, OFS is owned by Furukawa Electric, a multi-billion dollar global leader in optical communications.

For more information, please visit [www.ofsoptics.com](http://www.ofsoptics.com).

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