

# Verizon transports 800 Gbps of data across a single wavelength of fiber

## Verizon continues technology innovation to prepare for an explosion in data generation from enterprise and consumer 5G applications

**DALLAS, TX** – Verizon, along with Ciena (NYSE: CIEN) and Juniper Networks, have recently completed a test in Verizon’s live fiber network to move 800 Gbps of data on a single wavelength. 5G promises blazing fast gigabit speeds, super low single-digit millisecond latency, and huge scalability. It will be able to connect billions of devices and moving terabytes of data from new and exciting, never-before-seen use cases including video streaming, virtual reality, cloud computing, and machine learning and artificial intelligence. To move that much data, Verizon engineers are advancing the connecting layer of fiber as well.

“In the past, we needed to combine multiple wavelengths to achieve 800 Gbps capacity,” said Kevin N. Smith, Vice President of Technology and Planning for Verizon. “Now, with the new optics configuration from Ciena and Juniper Networks on our fiber network, we are advancing our connecting layer of fiber to prepare for the explosion of data we know will come along with 5G’s transformational impact on industries and consumers. And being the only provider in the industry with that capacity on a single wavelength allows us to deliver the service at a much lower cost per bit.”

### Trial details

This successful trial on Verizon’s live fiber network showed equipment interoperability from two different suppliers and the capability to quadruple the typical capacity carried on a wavelength. The test traffic was transmitted between two Juniper Networks QFX 5220 packet platforms across two Ciena 6500 platforms powered by WaveLogic 5 Extreme (WL5e) coherent optics.

The use of this new coherent optics and equipment from Ciena and Juniper Networks demonstrate the evolution to a more software-driven and automated network with tunable capacity from 200Gbps to 800Gbps per wavelength, allowing Verizon to maximize efficiencies with the ability to optimize capacity for any distance and adjust to unpredictable traffic demands dynamically to meet customer needs.

“800G is possible today with our WaveLogic 5 Extreme technology and this live Network trial is remarkable because it shows the progression of capacity and efficiencies,” said Scott McFeely, Senior Vice President of Global Products and Services for Ciena. “Programmable 200Gbps-800Gbps transmission will allow Verizon to effectively respond to fluctuating user demands by creating a more software-driven, programmable and highly scalable network.”

“As network traffic continues to grow sharply, driven by video and other new 5G uses cases, it’s imperative for communications service providers and infrastructure vendors to work closely together for rapid innovation. New 400GbE packet routers and 800G coherent optical systems help drive down the cost per bit with improved scale and density. We’re excited to have played a role in this successful trial and look forward to help deliver new, high-bandwidth services to end-users.” - Sally Bament, Vice President, Cloud & Service Provider Marketing, Juniper Networks

Verizon will begin deploying this new optical configuration in the fiber network in the second half of 2020.

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