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## **Verizon successfully completes high-speed, long-haul data session**

**Verizon sends 800 Gbps across long distance fiber in preparation for significant increase in amount of data from enterprise and consumer 5G applications**

**DALLAS, TX** – Verizon, along with Infinera, recently completed a successful test in Verizon’s live fiber network to move 800 Gbps of data on a single wavelength across extreme distances. This significant technological advancement in the fiber network will lay the groundwork for managing the blazing fast gigabit speeds, super low single-digit millisecond latency, and huge scalability that will come as a result of Verizon’s 5G Ultra Wide Band (UWB) network.

Earlier this year, Verizon announced its successful effort as the first carrier in the industry to move 800 Gbps with multiple vendors over a short distance on a single wavelength. With the completion of this new demonstration, Verizon has become the first carrier in the industry to advance this fiber technology to a long-haul scenario.

“With the evolution into more robust 5G applications and solutions, the ability to move massive amounts of data across long distances becomes even more crucial,” said Kevin Smith, Vice President of Technology Planning and Development for Verizon. “Continuing to advance the capabilities of our extensive fiber network alongside advancements in 5G technology, the Radio Access Network, and the network core will result in an unparalleled network experience for our consumer and enterprise customers.”

### **About the trial**

The trial was conducted over Verizon’s live production network with a combination of industry standard fibers. The trial used Infinera’s fifth-generation coherent optical technology, ICE6 (Infinite Capacity Engine), equipped in a GX Series platform and marked the following significant industry achievements:

- 800 Gbps single-wavelength transmission over 667 km between Nashville and Atlanta
- 600 Gbps single-wavelength transmission over 2,283 km from Atlanta to Memphis with a loop back in Memphis
- 400 Gbps single-wavelength transmission over 4,091 km from Atlanta to Dallas with a loop back in Dallas

“Verizon continually pursues the latest technology to provide high-speed, reliable transport solutions while meeting demanding network requirements,” said Parthiban Kandappan, chief

technology officer at Infinera. “With Infinera’s ICE6 technology, Verizon successfully transmitted high-speed optical signals across substantial distances over all network fiber types. This industry-leading optical innovation coupled with flexible configurations provides a single transmission solution that enables both 800 Gbps over large portions of the network and cross-continental transmission at 400 Gbps.”

### **Fiber is the foundation**

The inherent characteristics of 5G technology will support a wide variety of use cases that include everything from massive numbers of IoT devices that do very little networking, to smartphones with infinite opportunities to use data, to more complex solutions such as AR/VR that will require massive computing capabilities on the edge of the network. Those solutions will each require different combinations of the capabilities 5G will offer. To “right-size” network resources for these various use cases will require great flexibility and agility in the network.

Verizon has added virtualization throughout the Network, built open RAN platforms, built a containerized core, designed dynamic spectrum sharing, and infused the Network with intelligence to allow AI ML algorithms to drive efficiency and performance. These efforts will all lead to the greater programmability and agility needed to manage dynamic traffic flows and resources for various 5G applications and solutions. The success of these and other efforts are all reliant on Verizon’s ability to move significant amounts of data through the fiber backhaul network.

“The success of this trial is one more step in the journey to fully realizing the power and potential of our 5G UWB network,” said Smith. “As the traffic volume from advanced 5G solutions grows exponentially, our fiber network will be ready to handle it.”

### **About Verizon**

Verizon Communications Inc. (NYSE, Nasdaq: VZ) was formed on June 30, 2000 and is celebrating its 20th year as one of the world’s leading providers of technology, communications, information and entertainment products and services. Headquartered in New York City and with a presence around the world, Verizon generated revenues of \$131.9 billion in 2019. The company offers voice, data and video services and solutions on its award winning networks and platforms, delivering on customers’ demand for mobility, reliable network connectivity, security and control.

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