

# Verizon quadruples capacity in network core with Juniper 400G



Verizon is supercharging its core network to meet customers' heightened digital requirements and demand for its 5G Ultra Wideband service. Moving to Juniper 400G routing will enable Verizon to manage 115 terabits per second of data at any given moment.

## OVERVIEW

Company	Verizon
Industry	Service Provider
Products Used	PTX10004, PTX10008, PTX10016, Junos OS Evolved
Region	Americas

## CUSTOMER SUCCESS AT-A-GLANCE

**4X**

Capacity for fiber network core

**Lower cost**

Per bit with predictable speeds and high-density routing

**Scalable**

Designed to meet customer demands through 2032

**249%**

Increase in data use of Verizon's 5G Ultra Wideband network in one year

## CHALLENGE

### Scale the network core

"As 5G Ultra Wideband becomes available to more people and businesses, it will allow our customers to do more amazing things," says Kevin Smith, vice president of network planning at Verizon.

To be prepared for the massive growth opportunity, Verizon needed to evolve its global fiber backbone. It designed a next-generation converged core network to achieve the necessary scalability and longevity to address massive traffic growth while also significantly reducing the cost per bit.




**SOLUTION**

## Core infrastructure designed for scale and longevity

Juniper solutions are used across Verizon's access, edge, and core networks. Building on its decades-long partnership with Juniper, Verizon is deploying Juniper PTX10008, PTX10004, and PTX10016 routers for its next-generation packet core that supports 400G today and provides a seamless path to 800G.

The network upgrade enables Verizon to manage 115 Tbs of data on its network at any given time, upgradable to 230 Tbps in the coming years.

With Juniper, the core network will be even more reliable, programmable, and efficient.

The Juniper routers are half the size of the existing equipment, reducing space requirements in Verizon's core facilities and driving down both power usage and cost per gigabit to operate. A Juniper network allows for advanced automation to drive faster decisions and changes, improve reporting telemetry to make performance improvements in real time, and implement segment routing for more intelligent routing decisions.


**OUTCOME**


## Build the foundation of the digital world

Supercharging its network core with Juniper allows Verizon to significantly increase the bandwidth needed to support its wireless, home Internet, enterprise, small business, and fiber-to-the-home customers.

The network lays the digital foundation to meet consumer and business' expectations for entertainment, gaming, and augmented and virtual reality. 5G can support real-time applications and promises to transform industries by enabling ubiquitous Internet of Things (IoT) connectivity.

With Juniper at the heart of its next-generation core network, Verizon can improve scale and density while lowering the cost per bit to deliver new high-bandwidth services. Leveraging its deep Juniper expertise helps accelerate deployment and streamline operations.

Building a new core network that spans more than 1 million miles of fiber is a tremendous undertaking, and in the first phase, Verizon will deploy the new Juniper routing at 84 sites.



**“The tremendous growth and opportunities that 5G can offer made it critical to ensure we had the right network vision and roadmap for Verizon’s long-term success. It is crucial that our new core network can scale reliably and deliver the performance that our customers demand. The Juniper PTX10000 line of routers not only stood out for performance, meeting or exceeding our every requirement, but will also help us achieve the economics needed as we scale.”**

**Kevin Smith**  
VP Networking Planning, Verizon

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