WESTELCOM®

AUTOMATION ENABLES WESTELCOM TO SERVE THE DIGITAL NEEDS OF UPSTATE NEW YORK BUSINESSES

Summary

Company:
Westelcom

Industry:
Telco

Business Challenges:
Meet growing demand for business-quality voice, network, and cloud services in upstate New York

Technology Solution:
- MX10003, MX104, and MX80 Universal Routing Platforms
- EX4600, EX4500, EX3400, and EX2200 Ethernet Switches
- SRX300 Services Gateway
- Juniper Sky Enterprise

Business Results:
- Embarked on automation journey to deliver services faster and reduce manual errors
- Enhanced resiliency and capacity to meet demand for voice, data, and cloud services in rural and remote areas
- Met diverse data, voice, and video needs of customers, from small businesses to nationwide service providers

Rural and remote communities are often on the far side of the digital divide. As all businesses become digital, healthcare providers, schools, and local governments everywhere rely on business-class voice, network, and cloud services to serve customers and operate efficiently. Westelcom, which has served the business community in Northern and Central New York State for the last 15 years, upgraded its Juniper Networks MPLS network to 100 Gbps and harnessed automation to meet customers' digital needs faster and more efficiently.

"Upgrading to 100 Gbps helps us scale our business, take on new customers, and deploy services faster," says Seth Crimmins, vice president of operations at Westelcom.

Westelcom offers business-quality phone and network services to businesses in upstate New York—a region of glittering lakes, dairy farms, and apple orchards that extends from Albany to Syracuse, and through the Adirondack Mountains.

Hosted phone systems is one of Westelcom's most popular services, as organizations want enterprise-quality phone service at a predictable monthly cost. Westelcom also offers business-class Ethernet and network services, managed security services, Microsoft Office 365, data center collocation, and direct connections to the public cloud. The company also has a robust wholesale business, offering dark fiber, transport, Ethernet, and data center services to other service providers.

Streaming video was a significant driver for the move to 100 Gbps. Westelcom's parent company, Chazy & Westport Communications, is bringing high-speed broadband to residents in rural and underserved communities in the area, and Westelcom backhauls that traffic. "Over-the-top video services are driving the need for increased capacity at the edge," says Crimmins.

"Juniper's SD-WAN solution provides a simplified approach to managing a multitude of connections from customer sites to multiple data centers and cloud services. Juniper's secure, flexible SD-WAN solution enables us to offer secondary broadband connections for resiliency, enhance our managed security services, and deliver services with greater agility."

- Seth Crimmins, vice president of operations, Westelcom

Bringing Digital Equity to Rural Businesses

Juniper Networks routing has been an integral part of Westelcom's network since 2012. "Juniper offers a cost and performance advantage," says Eric Kreckel, senior network architect at Westelcom. "Juniper is easy to configure and use, and scales well."

When Westelcom designed its new network, it separated core routing from edge services to enhance resiliency and redundancy. Westelcom deployed the Juniper Networks® MX10003 Universal Routing Platform for the core network in its points of presence (POPs). It is repurposing the Juniper Networks MX104 Universal Routing Platform—a compact, highly redundant, temperature-hardened router—for the edge.

"Junos OS is flexible and allows for easy configuration updates and rollbacks. Configurations are completely portable."

- Eric Svenson, director of engineering, Westelcom

The MX10003 enables Westelcom to address traffic, subscriber, and services growth for the long term, providing ultra-high density and throughput in a space- and power-optimized platform. "There's not another product that even came close to the cost vs. density of the MX10003 router," Kreckel says.

Westelcom connects to Internet exchanges in Quebec, Canada and New York City, allowing customers to reach anywhere in the world. It also offers customers direct connections to Microsoft Azure, Amazon Web Services, and Google Cloud for a superior experience. "As the Internet grows, the route tables grow," says Eric Svenson, director of engineering at Westelcom. "We chose Juniper from a route-scale perspective, as well as port capacity."

Westelcom uses the Juniper Networks EX4600 Ethernet Switch, a compact, highly scalable, high-performance 10GbE switch, in its three data centers to support its managed services. Juniper Networks EX2200 Ethernet Switch and SRX300 Services Gateway are deployed on the customer premises for managed services.

Juniper Networks Junos® operating system, which runs across Juniper routing, switching, and security devices, provides a strategic advantage for Westelcom. "Junos OS is flexible and allows for easy configuration updates and rollbacks," says Svenson. "Configurations are completely portable."

Automation Improves Network Reliability

A major goal is to enhance network resiliency through automation, which will allow service orders to be pushed directly to the network equipment.

"One of the greatest causes of unreliability is human," Kreckel says. "We're keeping humans out of the core network. We're working toward automation for configuration. We're trying to minimize the human element of physically logging into a box to make changes for a customer."

The network engineering team is building its own automation tools, which leverage the standards-based Network Configuration Protocol (NETCONF) as well as Juniper's open APIs. "Juniper's innovation in automation and APIs gives us greater flexibility for integration," Svenson says.

"The day-to-day work of our engineering staff will be done through automation and a Web interface," says Crimmins. "Automation lets the engineering team focus on design and the bigger picture of working with customers."

All Businesses Are Digital

Business-quality network services have far-reaching impact on businesses in rural and remote areas—community banks, local news stations, marketing agencies, specialty manufacturers, and more. "With our Juniper network, we're bringing 1-gig and 10-gig speeds to rural areas where there weren't a lot of options before," says Crimmins.

"Virtually every hospital north of Albany uses Westelcom for Internet," says Kreckel, senior network architect at Westelcom. Two telemedicine networks, 10 hospitals, and 120 medical facilities in the region depend on Westelcom services.

A highly redundant Juniper network allowed the company to enhance the quality and reliability of its voice services. "Our PTSN gateways, call processing, and switching are geographically diverse," says Kreckel.

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Eric Kreckel, senior network architect, Westelcom
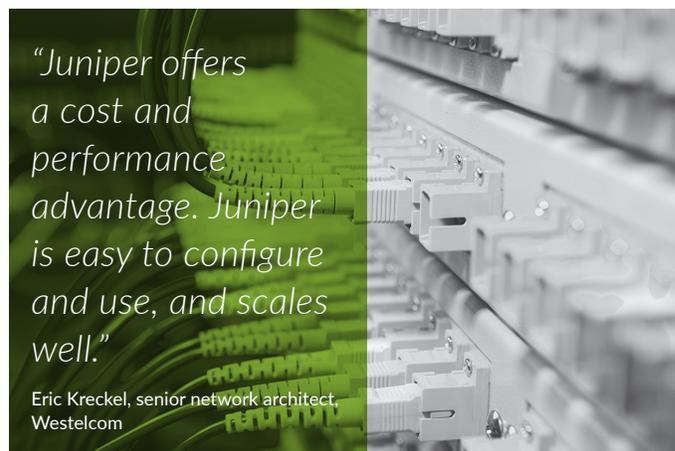
Advancing Network Services

"The changes we've seen in our network over the last few years have been logarithmic," says Kreckel. "More people have more devices. People do everything online. Businesses are pushing out to the cloud."

With a Juniper network, Westelcom is ready for unyielding digital consumption—and enabling growth in areas that have been traditionally underserved by the digital economy.

"In rural New York, companies don't have a large IT staff with vast knowledge," says Crimmins. "Customers rely on us and trust us to look for opportunities to help them with their IT needs and consumption."

Westelcom is forging ahead with new service offerings to meet these customer needs. It is piloting an SD-WAN service, which will enable Westelcom to connect customers with multiple locations while limiting truck rolls through zero-touch deployment. "Juniper's SD-WAN solution provides a simplified approach to managing a multitude of connections from customer sites to multiple data centers and cloud services," Crimmins says. "Juniper's secure, flexible SD-WAN solution enables us to offer secondary broadband connections for resiliency, enhance our managed security services, and deliver services with greater agility."

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- Seth Crimmins, vice president of operations, Westelcom

Westelcom is also evaluating a managed wireless LAN service offering, using solutions from Aerohive—a Juniper global strategic partner. Juniper Sky™ Enterprise cloud network management will simplify management for the wireless LAN and SD-WAN services. "Cloud network management is simple and quick," says Crimmins. "Juniper Sky Enterprise is an easy way to configure and manage our Juniper switches and firewalls, so we can accelerate time-to-deployment for our customers."

For More Information

To find out more about Juniper Networks products and solutions, please visit www.juniper.net.

About Juniper Networks

Juniper Networks brings simplicity to networking with products, solutions and services that connect the world. Through engineering innovation, we remove the constraints and complexities of networking in the cloud era to solve the toughest challenges our customers and partners face daily. At Juniper Networks, we believe that the network is a resource for sharing knowledge and human advancement that changes the world. We are committed to imagining groundbreaking ways to deliver automated, scalable and secure networks to move at the speed of business.

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