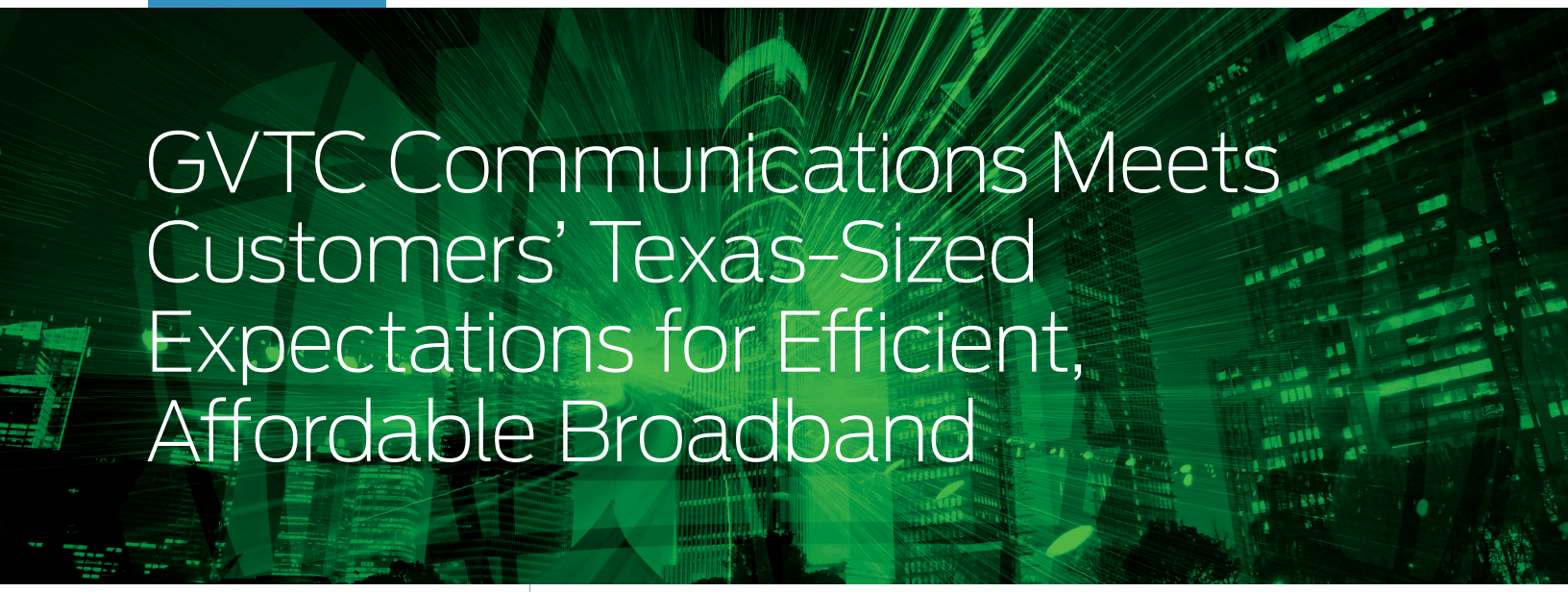

GVTC Communications Meets Customers' Texas-Sized Expectations for Efficient, Affordable Broadband

Summary

Company:
GVTC Communications

Industry:
Telecommunications

Business Challenge:
This Texas service provider was expanding its coverage area and needed to ensure that its network could continue to keep up with its customers' high expectations.

Technology Solution:
- ACX5048 Universal Access Router
- MX104 3D Universal Edge Router

Business Results:
- Expanded coverage area to meet growing demand for services
- Increased service efficiency with high-density broadband access routers
- Conserved IPv4 addresses with carrier-grade NAT

As the saying goes, "everything's bigger in Texas." That includes Texans' expectations when it comes to the Internet. GVTC Communications is dedicated to meeting those high expectations for residential and business customers in far north San Antonio, the Texas Hill Country, and South Texas. GVTC has been a leader in fiber broadband, and was the first to deliver residential gigabit speeds in the San Antonio area. In addition to high-speed Internet, GVTC offers digital cable TV, phone, and interactive home security monitoring.

Business Challenge

As demand for voice, data, Internet, and other digital services grew, GVTC needed an affordable way to deliver more services to more customers. As a cooperative telephone company, GVTC must challenge the status quo to operate efficiently and compete with service providers with far deeper pockets. As GVTC expanded its service area for gigabit services, it needed broadband aggregation routers with higher port densities than what was available from its existing vendor.

Growth also meant that GVTC needed to conserve its IP addresses, which are a pricey commodity. "The industry has talked about this for a long time," says Aaron Gould, senior network engineer at GVTC. "But the American Registry is out of IP addresses, and people are scrambling. People are spending $10 per IPv4 address."

Technology Solution

Accustomed to being a technology leader, GVTC knew it needed to change the game—and find a solution that would help deliver a better result. It set out to find an edge router with a higher port density and the same robust MPLS provider edge (PE) feature set that its service relied on, including Internet, Layer 3 VPN, Layer 2 VPN, and VPLS, as well as Ethernet and IP traffic. After a thorough comparison of leading aggregation routers, GVTC chose the high-density, high-capacity Juniper Networks® ACX5048 Universal Access Router.

"With the MX104, we can get more use out of our IPv4."

Aaron Gould, Senior Network Engineer, GVTC

The ACX5000 line of Universal Access Routers is ideal for cost-effective metro Ethernet access and aggregation solutions and is built to deliver 1GbE, 10GbE, and 40GbE capacity. ACX Series routers provide Carrier Ethernet 2.0 services and have robust support for VPLS, IP, and IP VPN services. GVTC swapped its existing routers with the ACX Series devices without a hitch.

To overcome the challenges of IPv4 address depletion, GVTC chose Juniper Networks MX104 3D Universal Edge Router to deliver carrier-grade Network Address Translation. The MX104 is a modular, highly redundant, and full-featured router built for space and power-constrained facilities, and the CGNAT is fully integrated with MPLS and Layer 3 VPN capabilities. MX104 routers bring carrier-grade NAT capability into GVTC's network, so small pools of public addresses can be shared among its many end sites. "With the MX104, we can get more use out of our IPv4 addresses," says Gould. "IPv6 is the end state goal, but CGNAT is an effective stopgap."

GVTC is pleased with the new functionality. "The Juniper routers and new network are performing the way we designed them," says Gould. The network is designed to be fault tolerant, so if one router shuts down or fails, the other carries the load.

"We're really pleased with the Juniper routers. We don't hear much out of them, which is good."

Aaron Gould, Senior Network Engineer, GVTC

Business Results

Most recently, GVTC expanded its gigabit fiber service into the city of Boerne, TX, to support its mission of bringing high-speed communications services to small communities to attract economic development and improve residents' quality of life. With high-performance, highly reliable routing from Juniper, GVTC can help ensure that its residential and commercial customers have the high speed, quality data, voice, and video services they expect. GVTC has made its network more efficient—in terms of aggregation routing and IPv4 usage—so it can use its resources elsewhere and compete more effectively with national service providers.

The redesigned network is easier to manage and less expensive to operate. With its previous vendor, it needed to pay for a costly monthly support contract, which was a drain on the operating budget. In particular, Gould appreciates Juniper Networks Junos® operating system, the common OS running across Juniper's routing, switching, and security devices, because running Junos OS in the network shortens the time to deploy new services and lowers the cost of network operations.

"Junos OS has a sweet command line interface," he says. "I love that about Junos OS—I can jump from ACX Series devices to MX104 to the SRX Series, and it works the same." Not only does that make GVTC's network operations more efficient, but also it allows Gould and his team to help the company's IT team manage the Juniper Networks SRX Series Services Gateways, which provide firewall services and advanced threat protection for the corporate network.

Gould has been impressed by how smoothly everything is running. "We're really pleased with the Juniper routers. We don't hear much out of them, which is good."

Next Steps

GVTC had a vision for how it could deliver high-performance, highly reliable communications services to customers in a small community, and it challenged the conventional thinking to find a solution. With that kind of inventiveness and flexible solutions from Juniper, it was able to meet its current challenges—and future ones as well.

For More Information

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

About Juniper Networks

Juniper Networks challenges the status quo with products, solutions and services that transform the economics of networking. Our team co-innovates with customers and partners to deliver automated, scalable and secure networks with agility, performance and value. Additional information can be found at Juniper Networks or connect with Juniper on Twitter and Facebook.

Corporate and Sales Headquarters
Juniper Networks, Inc.
1133 Innovation Way
Sunnyvale, CA 94089 USA
Phone: 888.JUNIPER (888.586.4737)
or +1.408.745.2000
Fax: +1.408.745.2100
www.juniper.net

APAC and EMEA Headquarters
Juniper Networks International B.V.
Boeing Avenue 240
1119 PZ Schiphol-Rijk
Amsterdam, The Netherlands
Phone: +31.0.207.125.700
Fax: +31.0.207.125.701

3520578-001-EN Oct 2016