



BROADBAND IN RURAL AMERICA: OZARKSGO DECLARES “IT’S ABOUT TIME”

Summary

Company:

OzarksGo

Industry:

Utilities

Business Challenges:

Bring affordable, reliable, and robust broadband to rural Arkansas and Oklahoma.

Technology Solution:

- MX204 3D Universal Edge Router
- MX480 5G Universal Routing Platform
- QFX5110 Switch

Business Results:

- Delivered fast, affordable fiber to the home in Arkansas and Oklahoma
- Signed up 4,000 customers in first year of service
- Accelerated service agility, lowered capital costs, and simplified operations

Many residents in rural America still lack high-speed broadband, cutting them off from vast informational, educational, and economic opportunities. OzarksGo, a different kind of service provider, has set out to change that for the people of Arkansas and Oklahoma. To bring fiber to the homes of its community, OzarksGo has built an integrated optical network with the Juniper Networks® MX Series 5G Universal Routing Platforms and Juniper Networks QFX5100 Switch.

Stilwell once had the distinction of being the poorest town in Oklahoma. Nearly one-third of its 3200 residents lived below the poverty line, and only three-quarters of adults had a high school diploma.¹ Like many parts of rural America, Stilwell was being left out of the 21st century economy. And it was not alone. Approximately one-quarter of Arkansas and Oklahoma residents lack high-speed broadband—nearly double the national average.²

While students at Stilwell schools had laptops, without Internet at home, they were still at a disadvantage. “Having Internet service that’s reliable and usable changes people’s lives,” says Billy Hyatt, senior network engineer at OzarksGo. “The kids don’t have to go to the library or McDonalds at night to do their homework.”

“We look at broadband the way electricity was viewed 80 years ago. Broadband should be ubiquitous and simple to deploy, because it’s essential to the success of individuals and communities.”

Heath Noland, Network Operations Manager, OzarksGo

Business Challenges

Having too few people and being too far removed from the mainstream, rural America has largely been overlooked by the Internet backbone that crisscrosses the nation, depriving it of fast, affordable access to the World Wide Web. People have few choices of Internet service providers, when they have a choice at all. With less competition, they can easily have to pay higher prices for lower quality services, despite earning less than people in urban areas.

¹ “The Poorest Town in Each State,” 24/7 Wall St, June 5, 2015 <https://247wallst.com/special-report/2015/06/05/the-poorest-town-in-each-state/8/>

² “2018 Broadband Deployment Report,” FCC, 2018 <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2018-broadband-deployment-report>

But with the help of OzarksGo, a subsidiary of Ozarks Electric, a nonprofit rural electric cooperative, things are changing for the people of northwest Arkansas and northeast Oklahoma.

“We look at broadband the way electricity was viewed 80 years ago,” says Heath Noland, network operations manager at OzarksGo. “Broadband should be ubiquitous and simple to deploy, because it’s essential to the success of individuals and communities.”

Noland, who helped build Ozarks Electric’s operational network, jumped at the opportunity to bring fast, affordable Internet to his community. He was soon joined by Hyatt, who has spent more than a decade working on some of the largest service provider networks, and by Steven Karp, who helped build the Arkansas research and education network.

“As a subsidiary of an electric co-op, our focus is to serve our members at the best cost,” says Noland. OzarksGo offers all-fiber gigabit Internet, premium television, and phone service to residential and commercial customers. Lightning-fast Internet, HD television, and crystal-clear phone calls come directly into people’s homes. Movies download in 30 seconds. The pricing is compelling: a 1 Gbps plan runs less than \$80 a month.

With a community focus and a state-of-the-art network, it’s no surprise that OzarksGo has seen a surge of customer demand. Thousands of customers signed up for the service in the first year. “People in the area have wanted an alternative for a long time, and they’ve been looking forward to us providing it,” Noland says.

Technology Solution

Building a network that brings fiber to the home—and delivering triple-play services faster and at a low cost—hinges on an integrated packet optical network from Juniper Networks. The legacy approach calls for building separate dense wavelength-division multiplexing (DWDM) and IP/MPLS networks. With an integrated network, however, OzarksGo can eliminate excessive equipment cost and complexity while simplifying provisioning and monitoring. And with control capabilities, it can improve operations and accelerate service agility. Breaking with the status quo has also enabled OzarksGo to short-circuit the cost and deployment overruns that other electric cooperatives have experienced when bringing fiber to the home in their service areas.

“Using packet optical from Juniper allowed us to bring 100 gig to the table faster,” Hyatt says. “With Juniper, we can be nimble and operationally efficient. The network is cost-optimized so by the time we get to years five and six, we should be more profitable.”

OzarksGo is in the second year of a six-year project, starting in the more densely populated areas around Fayetteville, Ark., and then expanding to areas that might only have a dozen customers. The company began by offering triple-play services where cable and DSL were already available; now it’s reaching areas that had little more than dial-up, satellite broadband, or nothing at all.



“Wedington Township, which is about 20 miles outside of Fayetteville, didn’t have any service without us—just smoke signals,” says Steven Karp, senior network engineer at OzarksGo. “About 150 people live there, and now people have a gig fiber connection to their homes, enabled by a Juniper packet optical network.”

OzarksGo uses the Juniper Networks MX480 5G Universal Routing Platform for core routing and data center aggregation, and the MX204 3D Universal Edge Router for the 100 Gbps optical ring connecting the access networks at the substations to their core ring for redundancy. The QFX5110 Switch is a universal box that is used to aggregate traffic in the data center as well as provide flexible port options for service distribution in the substations.

“Juniper makes our network faster,” says Karp. “With our Juniper network, we can bring content to our members in rural America.”

Business Results—Banishing DSL, Dial-up, and Smoke Signals

OzarksGo launched as a residential service, but interest from businesses, hospitals, and schools is also high. The second largest school district in Arkansas recently became a customer. That’s because OzarksGo’s community focus is a compelling differentiator. “When we bid on projects like fiber leases for hospitals, we come at it from the perspective of the community,” says Hyatt. “With Juniper Networks, we are able to be more cost-driven and less profit-driven for services like telehealth.”

In the same way that Ozarks Electric brought electricity to the farms in the 1930s, OzarksGo is bringing high-speed broadband to rural America, giving residents access to the same opportunities and resources as people in more densely populated areas. High-speed Internet provides the foundation to close the education gap between poor and wealthy communities. Job growth is essential to keeping rural areas vibrant. Communities can stay connected to the resources of the broader world. Rural America has lacked access to fast, reliable Internet for far too long. OzarksGo is changing that, one home at a time.

“With the MX Series 5G Universal Edge Routing Platforms, we have access to a rich feature set of everything we need to do, whether it’s multicast TV service, MPLS service for business, or private networks for the power company.”

Steven Karp, Senior Network Engineer, OzarksGo

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.

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

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