



Electric Power Co-op leverages Zyxel CPE to rollout fiber broadband service to rural customers

TVEPA was looking to deliver stable, high-performance broadband connectivity, using its own fiber optic cable network, to support high-bandwidth applications in homes, businesses, churches, and industrial parks. Buildout of the TVI Fiber service began in late 2019 with service activated for the first customer in the first quarter of 2020.

According to Daniel Watson, Director of Telecommunications for TVEPA, the decision to offer broadband internet services to TVEPA customers was made after conducting multiple feasibility studies. "Much of our service area includes rural areas that have few or no options for high-speed, broadband service," he explained. "We had a couple of competitors who offered broadband in our service area, but those services delivered connectivity over VDSL and coax, which resulted in high latency and asymmetrical upload and download speeds."

Watson noted that the existing broadband service options available in their service area were not ideal for consumers and businesses as internet usage requirements changed drastically due to the COVID-19 pandemic. The demand for access to reliable, high-speed internet connectivity became critical across the TVEPA service area as people were forced to work and attend school from home. "We made the decision to rollout fiber optic, high-speed internet services to all of our members in a three-phased project," Watson said.



Headquartered in Batesville, Mississippi, Tallahatchie Valley Electric Power Association (TVEPA) is an electric cooperative in northeast Mississippi that has over 28,000 meters and more than 22,000 members. TVEPA provides service over 5,000 miles of electric lines across a service area that extends into very rural areas and out to the Mississippi Delta.

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Daniel Watson
Director of
Telecommunications
TVEPA

To design and implement the rollout of the new broadband service, TVEPA partnered with KGPCo, a leading provider of network services and supply chain solutions for communication and technology companies. In addition to recommending the specific customer premises equipment (CPE) for the deployment, KGP would be able to alleviate supply chain issues to ensure that TVEPA would be able to rapidly deploy their service and manage the expectations of their home and business customers.

Zyxel's high-performance WiFi solutions

Based upon the recommendations of their account team at KGPCo, TVEPA selected Zyxel's EX3510 AX5700 WiFi 6 Gigabit Ethernet Gateway and EMG6726 AC2400 Gigabit Ethernet Gateway for the large-scale deployment.

"We landed on Zyxel after comparing multiple products," Watson said. "We compared speed, throughput, manageability, and reliability, and ultimately the Zyxel products came out on top."

"We're seeing throughput speeds as high as 700 Mbps over WiFi 6 with the EX3510," stated Joe Reed, Network Engineer at TVEPA. "In my opinion, the strong range of the WiFi combined with speeds provided by the device makes the EX3510 a superior gateway device." Reed explained that TVEPA offers a full range of WiFi solutions that includes Zyxel extenders for customers with large homes.

"The Zyxel products have a very robust management system," Watson said. "We use TR-069 to monitor the CPE and provide support to the end user. It also has a pretty robust app that gives the end user the ability to manage many of their network and security settings."

"Giving the customer the ability to remotely manage the CPE device greatly reduces truck rolls," states Reed. "When a customer is having an issue with the network, being able to see into the network and resolve the problem remotely for them greatly reduces truck rolls and improves customer satisfaction." Watson explained that Zyxel support has been instrumental in the rollout of the TVI Fiber service.

"Anytime we have a problem, we have a dedicated resource to whom we can reach out to open tickets. They're proactive and if there are issues, they reach out to us to inform us of those potential issues. It's a good partnership for both parties."

Stable, high-performance connectivity for homes and businesses

"We've received great feedback from our community in regards to the WiFi," Watson explained. The stability of the network connection is incredible and the performance is outstanding. It's truly a remarkable product."

Main challenges

The existing broadband service options available in the TVEPA service area were not ideal for consumers and businesses as internet usage requirements changed drastically due to the COVID-19 pandemic

Zyxel solutions

Zyxel's high-performance WiFi Solutions that incorporate EX3510 AX5700 WiFi 6 Gigabit Ethernet Gateway and EMG6726 AC2400 Gigabit Ethernet Gateway to deliver speed, throughput, manageability, and reliability.

Core benefits

- Superior performance and stable, high-performance connectivity of Zyxel products
- Robust remote management system that helps to reduce truck rolls and improve customer satisfaction
- 24/7 technical supports

"By being able to offer broadband to customers using the Zyxel WiFi solutions, we've allowed kids to do their homework and enabled people to work from home," said Watson. "We've helped with healthcare and telemedicine, and have even gone so far as to bring high-speed internet to industrial parks in an effort to bring industry back to these areas."

"One of the wonderful outcomes of this project is that we've been able to bring high speed internet to churches," Watson continued. "We've been able to help them set up their infrastructures to provide livestream capability so people can actually see their church services without having to attend in-person during the pandemic. And that's been absolutely wonderful."

Featured products



EX3510

AX5700 WiFi 6 Gigabit Ethernet Gateway

- WiFi 6 (11ax) 4x4+3x3 for superior performance and coverage
- Zyxel MPro Mesh™ Solution (compliant with EasyMesh standards)
- Remote management via TR-069, TR-098 and TR-181
- CAF II performance testing support
- Zyxel-developed OPAL for superior flexibility and faster time to market
- Multiple SSIDs for various service deployment scenarios
- Comprehensive QoS for enhanced triple-play experience
- NAT, firewall with SPI and DoS for better security



EMG6726

AC2400 Gigabit Ethernet Gateway

- Zyxel Multy Pro managed WiFi system
- 1 GHz dual-core processor with dedicated quad-core routing accelerator
- Remote management via TR-069 and TR-181 i2
- Multiple SSIDs for various service deployment scenarios
- Comprehensive QoS for enhanced triple-play experience
- NAT, firewall with SPI and DoS for better security

For more product information, visit us on the web at <https://service-provider.zyxel.com>

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Customer story [TVEPA](#)

