CASE STUDY

Taylor Telecom: Accelerating Rural Broadband with Tarana ngFWA

A Quest for Broadband

Founded in 1951, Taylor Telecom serves nine counties across 2,000 square miles of rural Texas. The cooperative has evolved from its roots as a traditional phone company into a broadband provider delivering both fiber and wireless internet.

While much of Taylor's service area is fiber, the most remote locations remained challenging: rugged terrain, long distances, and high capex costs made fiber buildouts impractical. To meet Enhanced A-CAM federal obligations and accelerate rural broadband coverage, Taylor needed a new approach in its quest to deliver high-quality broadband to Texans.

Challenge: Taylor Telecom sought a robust fixed wireless solution to bring high-performance broadband immediately to some of the most rural parts of Texas while complying with federal program requirements and maintaining market competitiveness.

Solution: Tarana's ngFWA platform delivers high-performance broadband at a fraction of the cost and time of an all-fiber approach, perfectly complementing its existing fiber network.

Results: Taylor Telecom is rapidly building out its E-ACAM requirements, two years ahead of schedule and 30% under budget. Churn rates are less than 1% and operational efficiency is improved. Taylor Telecom is successfully competing for and winning customers outside its traditional ILEC service area.

Speeds: Up to 641/143 Mbps (DL/UL).

Distance: Link distances range up to 20 miles.

Visibility: LoS and some nLoS links due to hills and trees.

Spectrum: CBRS and 5/6 GHz.

Deployment Challenges

Deploying fixed wireless in Taylor Telecom's service area was not simple. The cost of fiber in low-density areas was prohibitive, and the clock was ticking with the E-ACAM program required buildout by December 31, 2028. Fixed wireless offered faster deployment times, but Taylor's leadership was wary. Previous generations of legacy FWA had a reputation for inconsistent performance, unreliability, and limited visibility into network operations.

As General Manager and CEO, Ricky Martinez put it: "I've seen bad, I've seen average, and I've seen good over the years. I've never seen a fixed wireless technology that was consistent and did what it promised."

Taylor Telecom needed something different. It needed a solution that could match the reliability of fiber at a fraction of the cost and time. Tarana's next-generation fixed wireless met all of these needs.

The Next Generation of FWA

Tarana's ngFWA platform's innovative breakthroughs create an entirely new paradigm for building and growing fixed wireless access networks, making gigabit broadband possible where legacy fixed wireless would fail. This includes:

- **Unmatched Interference Cancellation**: Tarana's interference cancellation ensures reliable, high-speed connectivity even in crowded, noisy RF environments. Features like Asynchronous Burst Interference Cancellation (ABIC) reduce the impact of bursty interference, such as nearby Wi-Fi transmitters. Less interference means more reliable, higher-speed connections.
- **Superior Non-Line-of-Sight (NLoS) Performance**: Rugged terrain and trees can hinder other wireless technologies, making links laggy or entirely unusable. Tarana overcomes this with fine-grain Tx and Rx digital beamforming, distributed massive MIMO at both ends of the link, and perfect multipath integration.
- **Scalability and Speed**: Operators can deploy gigabit broadband at large scale in weeks, not months or years. High-speed connectivity is deployed faster — accelerating service and revenue timelines — bridging the digital divide quickly, efficiently, and affordably.

For Taylor Telecom, these capabilities were a game-changer. Tarana's G1 delivered on all key metrics — speed, latency, and coverage — making it the perfect complement to Taylor Telecom's existing fiber network and a perfect DSL replacement. "You're always skeptical when you hear someone say, 'Hey, this is going to do this,'" said Martinez. "I've heard that story for decades. But with Tarana, everything works exactly as promised, if not better."

Why Tarana ngFWA

To do their due diligence, the team visited other Tarana-powered telco operators in Texas. What they saw convinced them Tarana was the right fit.

"We kept hearing how well Tarana works. After visiting some of Tarana's other telephone company customers, we were convinced Tarana was the right fit for us," said Martinez. "With Tarana, we would be able to provide service to areas that weren't built out with fiber that could still meet our E-ACAM obligations."

One of the things that stood out for them was Tarana's performance at distance. "The distances at which we can provide service were an eye-opening experience for us," shared Martinez. "Right now, we have a customer that we're connecting at almost 20 miles, and they're going to have a speed of 250 Mbps download. It's amazing."

Tarana also enabled rapid deployments, with Taylor's first three sites completed in just 79 days. "In one case, we had to actually lift a tower," said Martinez. "From the time we committed to doing it — to ordering the equipment from Tarana, the tower, the tower crews, and everything we had to do — that tower went up in 89 days. That speed has been crucial for our E-ACAM buildout."

Indeed, with Tarana, Taylor was able to accelerate their buildout far ahead of the federal deadlines: "Thanks to Tarana, we're going to be 90% built out by the end of the year. That's two years ahead of our obligation deadline. Even better, we'll be 30% under budget," said Martinez. "It was important for us to be able to get our subscribers a broadband solution as rapidly as possible. Tarana allowed us to get there quicker with trustworthy technology we could depend on."

The team was also pleased with the operational efficiency improvements gained from deploying G1. "With Tarana, we have not seen multiple truck rolls. The few truck rolls we've had have been related to other issues, such as power problems inside the home. Nothing related to Tarana equipment," said Martinez. This is particularly true for DSL customers who have migrated to Tarana, as they would have otherwise frequently required multiple truck rolls.

Perhaps more importantly, Tarana has enabled Taylor to extend beyond its traditional ILEC service area, winning new customers in competitive areas. "Somewhere down the road we'll build fiber out to every location, but Tarana buys us the ability to do it on our schedule instead of the government's," said Martinez. "It gives us a competitive edge today."

Deploying Tarana has also resulted in happier customers. "Our customers who have been upgraded to Tarana love it. In areas where we have Tarana, we have less than 1% of churn," said Martinez. "Once we get them connected, they do not leave us. Low churn is a big seller for us, along with consistency, reliability, and speed. It's these factors that have allowed us to keep our customers."

Delivering on the Promise of Fixed Wireless

For Taylor Telecom, Tarana ngFWA has been transformational. What began as a solution to meet federal funding obligations has evolved into a driver of efficiency, customer satisfaction, and competitive growth.

Martinez summed it up best: "I've been in the business for decades, and I've never seen wireless technology as good as Tarana. Everything it promised, it delivered — and often better. For ISPs looking for a capital-efficient, reliable, and fast-to-deploy solution, Tarana ngFWA is the right fit."

About Taylor Telecom

Since 1951, when Taylor Telephone Cooperative, Inc. was formed, our mission has been simple: "To provide high quality essential telecommunication services and enhanced services where justified, at a market comparable price, which enhances the quality of life and economic well being of our customers and the communities we serve." To put it simply, Taylor exists to make your life better. It's our privilege to provide the services that keep your life connected. To learn more, visit taylortel.net.

Tarana's mission is to accelerate the deployment of fast, affordable, and reliable internet access around the world. Through a decade of R&D and over $400M of investment, the Tarana team has created and continues to enhance a unique suite of next-generation fixed wireless access (ngFWA) products that deliver game-changing advances in broadband economics in mainstream and underserved markets in licensed and unlicensed spectrum. Tarana's ngFWA technology has been embraced by more than 300 service providers in 24 countries. Tarana is headquartered in Milpitas, California, with additional research and development in Pune, India.

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