CASE STUDY

AtLink: Defending and Growing with Next-Generation Fixed Wireless

AtLink Challenges

"In today's hyper-competitive landscape, we faced a critical challenge: how to outmaneuver agile newcomers armed with fiber-based networks. Our mission was clear — we had to revolutionize our approach in a way that not only delighted our customers but also optimized our operational efficiency," said Kevin Grace, CEO and President of E8 Technology Investment Group, the parent company of AtLink.

This challenge was exacerbated by AtLink's existing legacy network — comprised of Mikrotik, Ubiquiti, and Telrad FWA equipment — that was only capable of delivering, at most, 25/3 Mbps and, in many

Challenge: AtLink needed to upgrade its aging legacy fixed wireless infrastructure to compete with new fiber-based competitors.

Solution: Tarana's ngFWA platform delivered fiber-class broadband at a fraction of the cost and time of pure fiber.

Results: AtLink reduced churn from 5% to less than 1%, while improving speed offerings by 16X, increasing field installation success by almost 100%, and reducing operational costs.

Speeds: The average download speed for all subscribers is 410 Mbps, while the average upload speed is 103 Mbps.

Distance: Link distances range up to 22 miles.

Subscribers: Phase 1 upgraded 5,500 subscribers and 48 towers in just one year.

Visibility: Many nLoS and NLoS links due to hills, trees, and other foliage.

cases, far less. This placed AtLink at a severe disadvantage when fiber overbuilders and rural electric cooperatives began selling their broadband services within AtLink's market.

An internal review showed poor network performance and increased competition drove losses of up to 300 subscribers a month (5% churn). Margins were further reduced by the inefficiency of failed installations, with legacy FWA equipment success rates of just 50%. This was further worsened by the unreliability of the hardware in Oklahoma's notoriously severe weather, which includes tornadoes, lightning, high winds, hail, and heavy rainfall. These inefficiencies drove up operational costs while increasing customer dissatisfaction, which led, in turn, to ever more churn.

Faced with these issues, AtLink searched for a new way to operate and was quickly drawn to Tarana's next-generation fixed wireless platform, G1. "By thinking differently, we discovered we could achieve both superior service and cost reduction simultaneously. Enter Tarana," said Grace.

G1: The Next Generation of FWA

G1's innovative breakthroughs create an entirely new paradigm for building and growing fixed wireless access networks. G1 features field-proven technology, such as interference and noise cancellation, fine grain Tx and Rx digital beamforming, distributed massive MIMO at both ends of the link, and perfect multipath integration for excellent non-line-of-sight (NLoS) and near-line-of-sight (nLoS) link performance, and k=1 spectrum reuse.

G1's unique ability to cancel interference from other radios means high-performance speeds are possible even in busy RF environments, which leads to unprecedented performance and speeds. Tarana's asynchronous burst interference cancellation (ABIC) technology also reduces the impact of bursty interference, such as from nearby Wi-Fi transmitters. Less interference creates more reliable, higher-speed connections. Less interference also means greater capacity and the ability to support more subscribers per base-node radio. This translated for AtLink into a faster, more competitive broadband offering that increased customer satisfaction and reduced churn.

In the case of Oklahoma's many trees and sometimes hilly terrain, G1 takes all transmitted signals, including bounced signals from obstacles, and combines them to recreate the original signal at the other end of the link. The ability to combine all signals (multipath) is a hallmark of ngFWA and a key feature of G1 that dramatically increased subscriber installation success rates. It also opened up an entirely new market segment of NLoS subscribers for AtLink that were previously unreachable.

"Tarana has delivered improvements to AtLink across a number of dimensions, including higher installation success rates, more competitive offerings, reduced customer churn, better reliability, and the need for fewer towers."

Defend and Grow with ngFWA

AtLink rapidly moved to upgrade its network from legacy FWA equipment to Tarana. Within one year, AtLink upgraded 48 towers and 5,500 subscribers to a new CBRS-powered G1 network. It did this with two full-time, 4-5 man tower crews, and 16 field technicians installing 100 Tarana remote nodes weekly. This allowed AtLink to quickly realize the benefits of ngFWA. "When we first discovered Tarana," said Grace, "it felt like finding the holy grail of connectivity. Here was a breakthrough technology that didn't just promise fiber-class speeds — it offered us the power to transform communities at lightning pace, without breaking the bank. It was the game-changer we'd been searching for in our mission to bridge the digital divide."

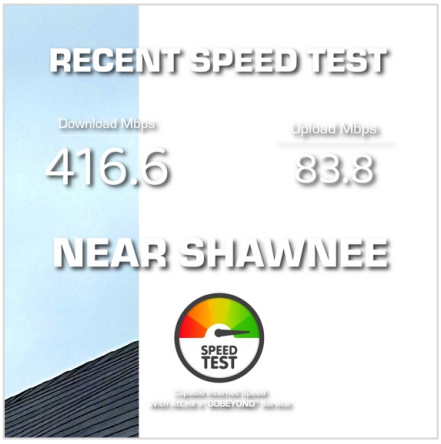
While AtLink was initially driven to rescue subscribers that would otherwise churn, it is looking to grow now that it has upgraded a substantial portion of the network. "We offer a two-month risk-free trial for our new customers. It is a powerful way to sell reliable, fast internet with outstanding customer service," said Patrick Castleberry, EVP of Operations at AtLink.

With the success of this initial phase, AtLink plans to upgrade its remaining subscribers in the next year to fully realize the benefits of ngFWA across the entire network. "The best part?" said Grace. "We're watching our loyal customers' eyes light up with amazement, while new customers are practically beating down our doors. This technology isn't just changing our business; it's redefining what's possible in our industry."

Improved Installation Rates

AtLink saw immediate improvements as the network upgrade progressed. Installation success rates for subscriber equipment increased to 88.5% for new customers. This is a substantial increase over installation success rates of 50% with previous equipment. Increased success rates substantially lower operational costs from truck rolls that don't result in a new customer.

AtLink field technicians also took advantage of the Tarana mobile installation app, which allows technicians to quickly configure, align, and test new RN deployments. "As we roll out the mobile app with the mobile battery installation tool, we expect to increase the number of installations by at least one additional install per technician per day," said Castleberry.



More Competitive Offerings

Where before, AtLink was only able to offer speeds of up to 25 Mbps/3 Mbps, with Tarana, it is now offering speeds that rival its fiber-based competitors — with plans ranging from 100 Mbps, to 250 Mbps, and even 400+ Mbps. These new speeds have kept existing

customers, rescued those that might have otherwise churned away, and allowed AtLink to actively pursue growth with net new customers.

Drastically Reduced Customer Complaints and Churn

Prior to the introduction of Tarana, AtLink's churn rate was 5% or up to 300 lost subscribers per month. This decreased dramatically once customers were upgraded, with churn rates of 0.1% or 10 subscribers per month for those leaving the service for a competitor. "In every case where AtLink has been able to switch off legacy service, customer complaints are virtually non-existent," said Castleberry.

Better Reliability

Another benefit of Tarana has been the increased reliability of G1 in severe weather conditions. "We get tornadoes, lightning, high winds, you name it," said Castleberry. "Legacy service was routinely disabled by Oklahoma storms. AtLink has now experienced a full year of Tarana technology versus Oklahoma weather, and we are amazed at its comparative imperviousness to weather-related outages. We have had three instances of direct lightning strikes on Tarana BNs and have had only one set of BNs need replacement."

This improved reliability has reduced operational costs with fewer tower climbs and customer truck rolls, as well as increased customer satisfaction, fewer support calls, and reduced churn.

Operational Savings

The savings from reduced truck rolls for failed installations, increased reliability, and lower customer complaints have been substantial for AtLink and have directly improved its bottom line. As AtLink upgraded its towers from legacy to Tarana, another benefit of ngFWA became clear. "We found that one Tarana tower does the work of 2-3 legacy towers," said Castleberry. "I plan to get rid of about 60% of my existing towers and replace them with Tarana." Less infrastructure will further reduce AtLink's operational costs, driving down the total cost of ownership even more.

Summary

With increased competition, the bar is set high for service providers to defend and grow their networks. As AtLink discovered, Tarana's next-generation fixed wireless platform is a reliable, low-touch solution that requires less infrastructure and opex to offer greater throughput and customer satisfaction at an economically compelling price point.

"You can compete at fiber speeds, what more could you want?" said Castleberry. "If someone asked me what I'd say to other operators about our experience, I'd say they'd be a fool not to try Tarana. If you are a WISP, Tarana is the only game in town."

Grace agrees. "Now, when we see the AtLink name on our broadband service, it's not just a label — it's a badge of honor representing cutting-edge connectivity that makes our entire team proud. We're not just building a network; we're crafting a digital legacy that will empower our community's growth for years to come."

About AtLink

AtLink Services currently serves thousands of Oklahoma families and is dedicated to providing exceptional fixed wireless internet service to suburban and rural communities. Founded in 2005, AtLink is one of Oklahoma's largest locally operated wireless internet service providers. To learn more about AtLink, visit atlink.net.

About Element8

Element8 (E8) is a next-generation ISP dedicated to bridging the digital divide by delivering high-speed broadband to underserved and rural communities. Based in Fort Worth, Texas, E8 combines strategic partnerships with leaders like Cisco and Tarana with the strength of its brands, AtLink Services and Wisper, to build a national carrier-grade network to serve millions. With a mission to create meaningful community change, E8 leverages cutting-edge technology and customer-first solutions to build reliable, scalable networks. Backed by Digital Alpha's $200 million investment, E8 is at the forefront of empowering Americans with transformative connectivity. Learn more at e8internet.com.

Tarana's mission is to accelerate the deployment of fast, affordable internet access around the world. Through a decade of R&D and more than $400M of investment, the Tarana team has created a unique next-generation fixed wireless access (ngFWA) technology instantiated in its first commercial platform, Gigabit 1 (G1). It delivers a game-changing advance in broadband economics in both mainstream and underserved markets, using either licensed or unlicensed spectrum. G1 started production in mid-2021 and has been embraced by more than 200 operators in 23 countries and 45 states. Tarana is headquartered in Milpitas, California, with additional research and development in Pune, India.

