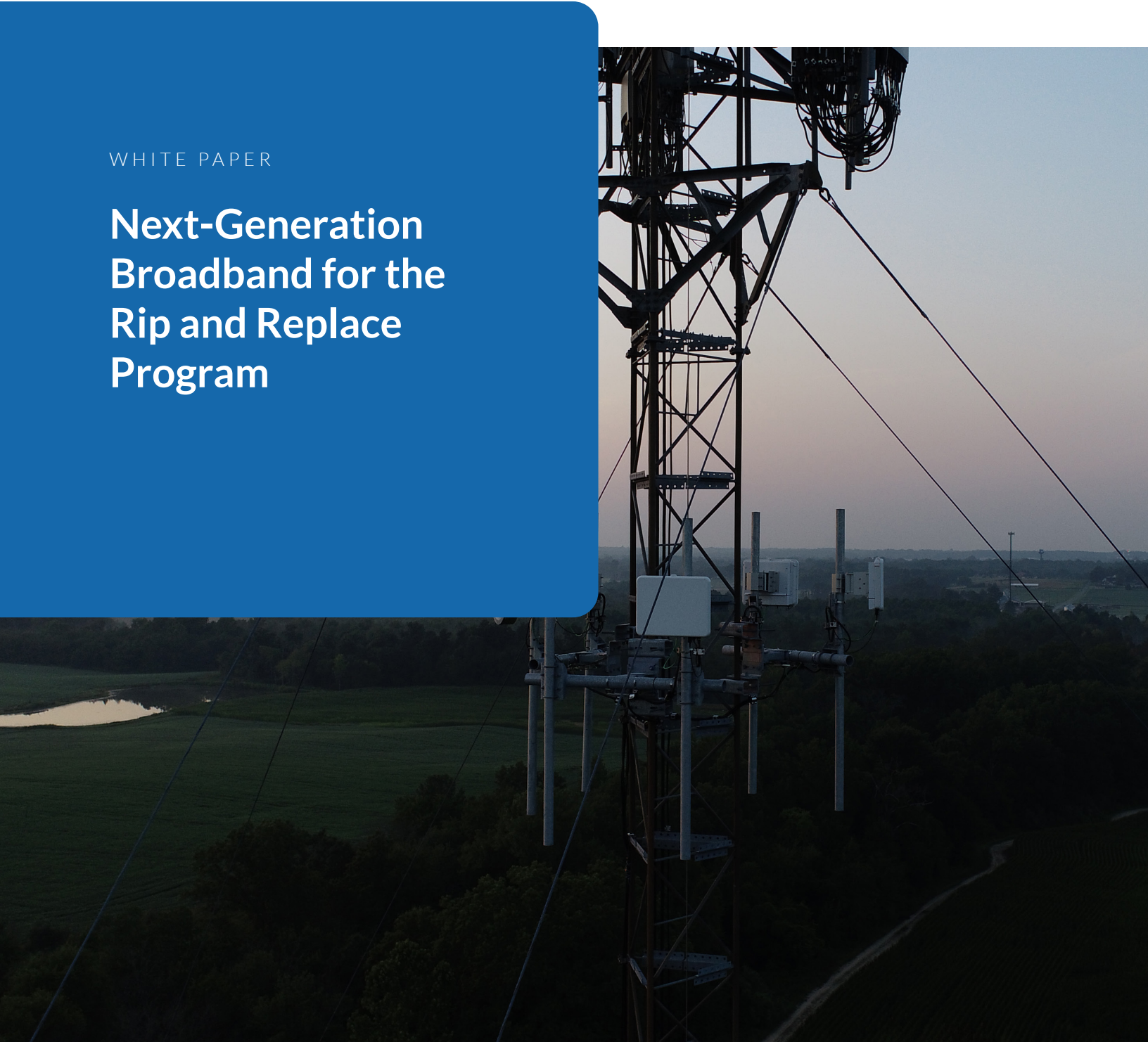


WHITE PAPER

Next-Generation Broadband for the Rip and Replace Program



The Rip and Replace Directive

The Federal Communications Commission (FCC) has mandated the removal and replacement of telecommunications equipment from Chinese companies like Huawei and ZTE, citing national security concerns. Known formally as the Secure and Trusted Communications Networks Reimbursement Program, this initiative, commonly referred to as “Rip and Replace,” presents both significant challenges and opportunities for mobile and broadband operators.

With Tarana’s next-generation fixed wireless (ngFWA) platform, operators can go beyond simple compliance and seize the opportunity to transform their network, unlock new markets, and enhance service reliability. They can do so at a fraction of the cost and time of alternative technologies.

Rip and Replace: A Critical Inflection Point

Operators impacted by Rip and Replace must address a broad spectrum of infrastructure, including:

- › Mobile networks
- › Fixed wireless and broadband networks
- › Fiber and wired infrastructure

While the primary intent of this initiative is to secure national communications networks, its implementation presents a daunting reality for operators. Key obstacles include funding shortfalls, supply chain disruptions, and workforce shortages. Of these, the most pressing issue is securing funding to ensure a seamless transition and transformation.

Maximizing the Funding Opportunity

With an additional \$3.08 billion allocated to support this initiative, forward-thinking operators have a unique chance to modernize their networks, enhance service offerings, and future-proof their businesses. By leveraging these funds wisely, operators can position themselves for long-term success beyond mere compliance.

Tarana ngFWA: FCC-Approved for Rip and Replace

Understanding what equipment is and is not approved for Rip and Replace by the FCC can be challenging. For those considering Tarana, there are approved invoices where operators have already replaced Chinese equipment with Tarana’s ngFWA platform. This has applied to the replacement of mobile carriers with Tarana carriers. By leveraging the Rip and Replace program to modernize their infrastructure, operators can introduce new broadband services and unlock new revenue streams.

Mobile or Fixed Wireless? Why Choose?

With the original tranche of Rip and Replace funding, many mobile operators were forced to make strategic and sometimes painful decisions. During the time it has taken to approve the final round of funding, the overall telecom landscape has changed dramatically. Sites that might have needed replacement years ago, but weren't funded, might not make as much sense to replace today. Fortunately, with the core sites largely deployed, additional carriers of Tarana can easily be added to these locations. This would provide both mobile and data revenues, the best of both worlds.

No Network. No Problem.

Service providers who have secured Rip and Replace funding but have already decommissioned their network can still take advantage of funding. These providers can still leverage qualifying inventory to build a next-generation network — without having to operate it themselves.

There's a growing demand from service providers looking to expand their geographic footprint, and many are eager to deploy cutting-edge fixed wireless solutions. By partnering with the right provider, an operator can transform Rip and Replace funding into a valuable new network asset — powered by Tarana's next-generation fixed wireless technology.

Tarana: The Next Generation of FWA

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

- › **Unmatched Interference Cancellation:** Tarana's interference and noise 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 from nearby Wi-Fi transmitters. Less interference means more reliable, higher-speed connections.
- › **Superior Non-Line-of-Sight (NLoS) Performance:** Rugged terrain and trees can block other wireless technologies, making links either unusable or very poorly performing. 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.

Unlocking Network Transformation

Beyond simply meeting compliance requirements, the Rip and Replace initiative represents a strategic opportunity for operators to:

- › Expand revenues by introducing next-generation broadband.
- › Meet mobile requirements at the same time.
- › Deploy new networks for new opportunities.
- › Leveraging existing towers and backhaul for a cost-effective, highly scalable solution.
- › Future-proof networks with next-generation broadband technology.

These benefits can be realized in months rather than the years that might otherwise be required to implement a complete solution upgrade.

The Path Forward

Operators that approach Rip and Replace with a full understanding of what has been approved stand to gain significant competitive advantages. By adopting ngFWA, they can transform this federal mandate into an opportunity to modernize their networks, introduce new services, and enhance overall customer satisfaction.

Tarana's ngFWA platform is a game-changer in this transformation. With its unparalleled combination of cost-efficiency, speed, and reliability, operators can not only comply with the FCC directive, but also emerge stronger, more resilient, and more competitive in the evolving telecommunications landscape.

While the Rip and Replace program presents formidable challenges, it also offers forward-thinking operators the ability to redefine their networks. By leveraging innovative solutions like Tarana's ngFWA, operators can turn compliance into a catalyst for network transformation — unlocking new markets, enhancing service reliability, and bridging the digital divide with fiber-class broadband at a fraction of the cost and time.

Interested in learning more about our innovative solutions? Get in touch with us at taranawireless.com/how-to-buy

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) technologies. Its G1 and G2 platforms deliver game-changing advances in broadband economics in mainstream and underserved markets, using both 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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