

Wi-Fi Offload: A Scalable Path to Expanded Coverage and New Revenue for MSPs and WISPs

Executive Summary

Wi-Fi offload enables seamless, secure transitions from cellular networks onto trusted Wi-Fi infrastructure using Passpoint and OpenRoaming. What appears simple at the device level reflects a broader shift in how mobile traffic is delivered.

Mobile data demand continues to surge, while expanding macro networks remains expensive and slow. As a result, carriers are increasingly shifting traffic onto carrier-grade Wi-Fi infrastructure to improve coverage and manage congestion.

For managed service providers (MSP) and wireless internet service providers (WISP), this creates a clear opportunity. Existing broadband and Wi-Fi networks can now support mobile traffic, extending coverage and enabling participation in a growing offload ecosystem.

However, the most misunderstood aspect of Wi-Fi offload is not the technology. It's the business model. Understanding who pays, how providers participate, and where deployments are commercially viable is critical to success.

Understanding the Wi-Fi Offload Business Model

Wi-Fi offload is fundamentally an ecosystem play. Revenue does not come from end users, but from carriers seeking to offload traffic onto third-party infrastructure.

Who Pays?

Mobile network operators (MNO) ultimately fund offload. However, MSPs and WISPs typically do not engage directly with carriers.

Instead, participation is enabled through:

- Offload aggregators and intermediaries
- Roaming hubs and OpenRoaming brokers
- Managed service platforms that connect venues to carriers

These intermediaries handle carrier agreements, authentication frameworks, and settlement models.

Who Do You Work With?

Most MSPs and WISPs will partner with:

- Aggregators that have pre-established carrier relationships, such as WayFi and XNET
- Platforms that simplify onboarding into the offload ecosystem
- Technology providers that support Passpoint and OpenRoaming integration

The key is not building direct carrier relationships, but plugging into an existing ecosystem.

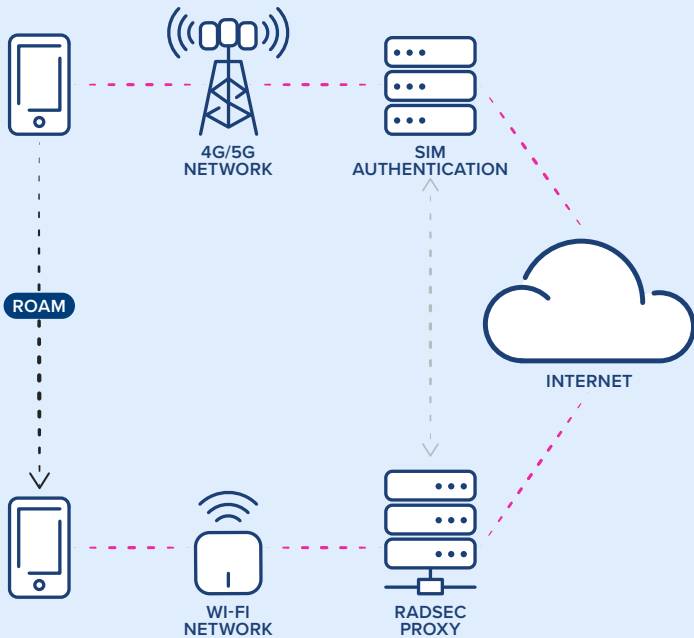


Figure 1: How does Wi-Fi offload work?

What Are the Costs?

While Wi-Fi offload leverages existing infrastructure, providers should anticipate:

- Network upgrades to support Passpoint and OpenRoaming
- Integration with offload platforms or aggregators
- Potential backhaul capacity increases
- Potential network upgrades to minimize dead spots or increase capacity
- Operational readiness for carrier-grade service expectations

In most cases, there are no large upfront licensing costs, but success depends on having a network that meets performance, security, and policy requirements.

Where Does It Work Best?

Not all environments generate meaningful offload revenue. The most viable locations share common characteristics:

- High user density
- High mobile data consumption
- Poor or constrained cellular coverage
- Repeat or long dwell-time users

Typical high-value environments include:

- Transportation hubs and public spaces
- Campuses and large commercial buildings
- Shopping malls and retail centers
- Restaurants and hospitality venues
- Hotels and multi-dwelling units (MDU)

Deployments in low-density or low-usage areas will have limited monetization potential.

WHAT OUR CUSTOMERS SAY

“We were spending tens of thousands of dollars annually on a DAS-based solution. Working with WayFi and our Cambium Wi-Fi access points, we have eliminated that expense. We only set up 5 buildings and our average offload is approximately a terabyte a month.”

— Jeremy Petticrew, Network Engineer,
University of Mary Hardin-Baylor



Market Drivers Accelerating Wi-Fi Offload

Several industry forces are converging to make Wi-Fi offload both viable and necessary.

- Continued growth in mobile data demand is straining cellular capacity.
- Carrier investment in macro expansion and DAS is increasingly constrained.
- 6 GHz spectrum enables higher performance and greater Wi-Fi capacity.
- A mature ecosystem now connects carriers, aggregators, and providers.

This combination shifts Wi-Fi from a convenience to a core part of mobile network strategy.

Cambium's ONE Network Architecture

Cambium Networks enables MSPs and WISPs to participate in Wi-Fi offload through a unified, full-stack architecture.

Cambium delivers Wi-Fi, switching, next-generation firewall, SD-WAN, fixed wireless, and fiber backhaul in a single platform managed through cnMaestro™ Network Management.

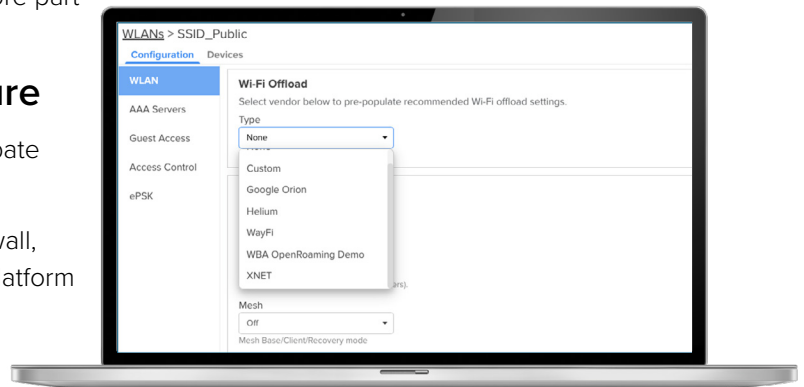


Figure 2: Setting up Wi-Fi offload in cnMaestro.

Key Advantages

INTEGRATED OFFLOAD ENABLEMENT

OpenRoaming and offload integrations are configured directly within cnMaestro, reducing setup time and complexity.

APPLICATION INTELLIGENCE

Built-in application visibility and policy control across the network ensure consistent performance for voice, video, and streaming applications.

SCALABLE PERFORMANCE

High performance and software-defined Wi-Fi enable scale from simple to complex environments while optimizing efficiency to support offload applications.

EXTENDED COVERAGE

Long-range Wi-Fi reduces the number of required access points and lowers deployment costs in large coverage areas.

UNIFIED MANAGEMENT AND POLICY

Centralized control enables consistent policy enforcement, segmentation, and operational efficiency across all sites.

OPERATIONAL AND ECONOMIC IMPACT

Wi-Fi offload success depends as much on operations as technology.

A unified architecture:

- Reduces integration overhead
- Simplifies deployment and provisioning
- Improves network consistency across locations
- Enables faster onboarding into offload programs
- Protects margins through lower operational costs

Providers that streamline operations will be best positioned to scale.

Why MSPs and WISPs Are Positioned to Win

MSPs and WISPs already own the critical assets required for offload participation:

- Broadband backhaul and last-mile connectivity
- Outdoor and indoor Wi-Fi coverage
- Managed network services across distributed environments

This positions them to:

- Extend mobile coverage without deploying cellular infrastructure
- Improve customer experience in high-density environments
- Participate in carrier initiatives through ecosystem partners
- Generate incremental revenue from existing deployments

The opportunity is not about building new networks. It is about enabling new value from networks already in place.

The Bottom Line

Wi-Fi offload is transforming managed Wi-Fi into strategic infrastructure within the mobile ecosystem.

The opportunity is real, but success depends on understanding both the technical and business models.

MSPs and WISPs that take these actions will be best positioned to capture value and scale participation:

- Focus on high-value environments
- Partner with the right ecosystem players
- Standardize on a unified architecture

Cambium Networks provides the foundation to simplify integration, reduce complexity, and enable scalable Wi-Fi offload deployments.

About Cambium Networks

Cambium Networks enables service providers, enterprises, industrial organizations, and governments to deliver exceptional digital experiences and device connectivity with compelling economics. Our ONE Network platform simplifies management of Cambium Networks' wired and wireless broadband and network edge technologies. Our customers can focus more resources on managing their business rather than the network. We make connectivity that just works.

Participation Requires More Than Access Points

Carrier-grade offload requires a network that can meet operational and policy expectations.

Key requirements include:

- Secure onboarding and identity-based access
- Seamless roaming via Passpoint and OpenRoaming
- Policy control and traffic segmentation
- Consistent application performance for real-time services
- Centralized, multi-site management

Fragmented architectures increase integration complexity, raise OpEx, and slow time to deployment.

