

MAKE EVERY CONNECTION COUNT



CELLULAR ENHANCEMENT OVER WI-FI



TECHNICAL OVERVIEW

Cellular Enhancement Over Wi-Fi enables mobile network operators (MNOs) and MVNOs to redirect user data traffic from cellular networks to Wi-Fi infrastructure, improving service quality, reducing cellular congestion, and lowering costs. Our solution supports a seamless solution through intelligent network design, device authentication, and backend integration. This handoff is managed through standardized protocols ensuring secure, automatic connectivity without requiring user intervention.

SITE PLANNING & DEPLOYMENT

- RF Survey & Interference Analysis: Evaluate spectrum use, noise floors, and RF propagation to plan optimal access point placement.
- Backhaul Considerations: Ensure adequate bandwidth via fiber, Ethernet, or microwave links to support simultaneous users and applications.

AUTHENTICATION & SECURITY

- EAP-SIM/AKA & EAP-TTLS: Authenticate SIM-enabled devices against the carrier's AAA server using secure, encrypted protocols.
- RADIUS & Diameter Integration: Enable interoperability between Wi-Fi infrastructure and mobile core networks for session management.

MONITORING & OPTIMIZATION

- Real-Time Network Analytics: Monitor throughput, latency, packet loss to maintain QoE.
- User Session Logging: Track session start/stop events, and data volumes for regulatory compliance. *No user data is collected, shared, or sold for this solution.*
- Roaming & Multi-Carrier Support: Enable roaming through inter-operator agreements and federated RADIUS configurations.

Our platform delivers a seamless, secure, and scalable connectivity solution with SIM-based auto-connect, WPA3-Enterprise compliance, and advanced reporting tools for monetization. Designed for high-demand environments, it supports multi-carrier deployments, edge optimization, and full backend integration, making it ideal for both new builds and existing infrastructure upgrades.

