

Connecting traditional RF to global communications

ROAM Bridge has been designed to extend the reach of traditional two-way radio communications by seamlessly connecting radio users to the Xtend global channel. Acting as a field deployed gateway, ROAM Bridge enables radio users within line of sight to access wide area and global communications using LTE or satellite connectivity.

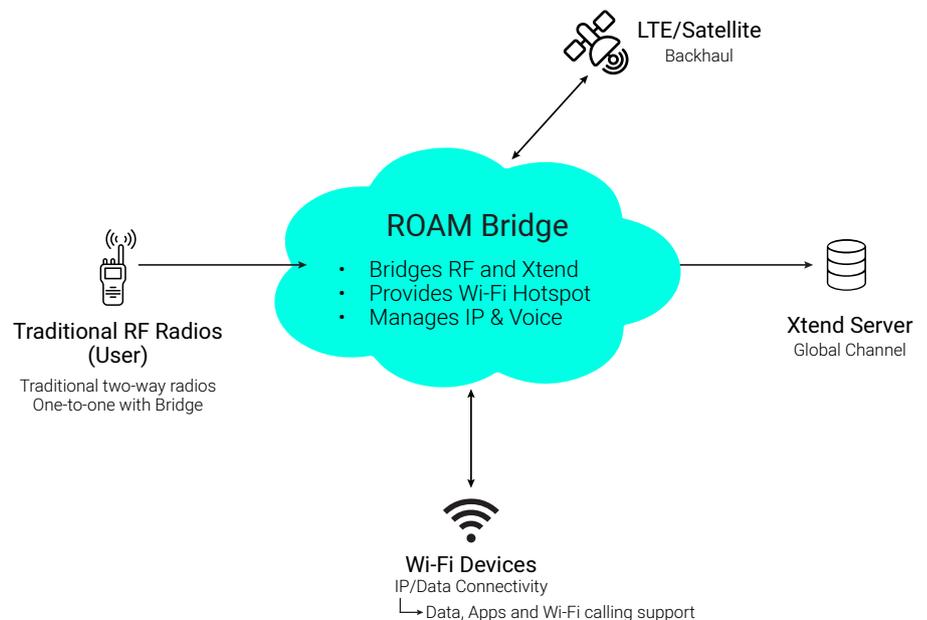
By bridging the gap between conventional RF systems and the Xtend server, ROAM Bridge allows organisations to protect existing radio investments while enabling modern, network-based communications and data services.

SOLUTION ARCHITECTURE

The Field Base provides:

- Access to the Xtend global channel for radio users within RF line of sight
- Backhaul connectivity via LTE or LEO satellite services
- Integrated data services through a Wi-Fi hotspot

Radio users operating within range can communicate beyond the limits of traditional RF coverage, enabling connectivity across wide geographic areas and distributed teams.



BRIDGING RF AND XTEND

ROAM Bridge introduces a unique bridge function that enables traditional two way radios to connect to the Xtend network using RF only. This capability effectively bridges conventional radio systems with modern IP based communications.

How the Bridge works:

- Voice is carried from the Base Platform to the Xtend server using LTE or satellite
- The transmission is received by the Base Platform via RF
- A traditional RF radio user transmits voice traffic
- Voice transmissions from the Xtend server are delivered back to traditional RF radios

This enables two-way voice communication between traditional RF users and Xtend connected users.

The ROAM Bridge concept has been designed around a one to one relationship between a portable radio and a Bridge instance.

At a technical level:

- The RF connection operates as a simplex radio frequency
- The architecture is optimised to minimise latency and congestion
- While multiple radio users could technically access a single bridge, this is not recommended as it may introduce channel congestion

This model ensures predictable performance, clear audio, and reliable communications in operational environments.

CONNECTIVITY BEYOND VOICE

In addition to extending radio communications, ROAM Bridge provides IP connectivity through an integrated Wi Fi hotspot.

This enables:

- Internet access for laptops, tablets, and smart devices
- Data connectivity for operational applications
- Support for Wi Fi calling enabled devices

Wi Fi calling capable devices can maintain telephony services even when outside of the cellular network, providing additional resilience and flexibility for field teams.

DEPLOYMENT SCENARIOS

ROAM Bridge is well suited to a wide range of operational environments, including:

- Remote and rural operations
- Temporary or rapidly deployed
- Emergency response and incident command
- Utilities, transport, and critical infrastructure
- Mining, industrial, and resource sector operations

By combining RF, LTE, and satellite connectivity, ROAM Bridge ensures communications remain available even in challenging or infrastructure limited locations.

KEY BENEFITS

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|  Extends traditional RF to the Xtend global channel with two-way voice between RF and Xtend users |  Supports LTE and satellite backhaul |  Bridges legacy radio systems with modern network-based communications |
|  Supports Wi Fi calling away from cellular coverage |  Provides Wi Fi hotspot for data and device connectivity |  Protects existing radio investments while enabling future capability |

DESIGNED FOR CONNECTED OPERATIONS

ROAM Bridge delivers a practical and reliable pathway from traditional RF communications to network enabled, global connectivity. By integrating with Xtend and supporting both voice and data services, ROAM Bridge empowers organisations to operate with greater reach, resilience, and flexibility without compromising on the reliability of their existing radio systems.