



LYNX Multi-Payload Communications Solution

Broadband Wireless Communications for Every Tactical Mile

Tecore's tactical LYNX, 4G LTE mobile solution, has been designed for rapidly deployable communications to support military, government, and first responders. The software-defined (SD) all-IP based architecture, delivers the most compact, adaptable, and cost-effective end-to-end (ETE) 4G LTE platform. The LYNX 4G LTE is engineered to meet military requirements like Mil-STD 810G, in a compact form factor and assists in the stringent Size Weight and Power (SWaP) requirements of today's military.

Tecore has incorporated over 20 years of C4ISR experience in scalable wireless systems into the design of the LYNX platform. It leverages the patented iCore® portfolio of 3GPP compliant SD core network elements, available as a completely integrated core or as individual elements capable of supporting network scalability across multiple locations. The robust capability set, compact form factor, and cost-effectiveness of the LYNX enables a broad range of deployment scenarios for tactical, coalition support, HA/DR missions, and mobile Networks-On-The-Move (NOTM).

Capabilities

LYNX provides standard 4G LTE compliant voice, text, MMS, Internet services for local users as a standalone private island system or as part of a larger communications WiFi mesh network. These capabilities provide a cost effective ETE 4G LTE solution to meet the critical need for today's commercial technologies and beyond.

Benefits & Features

- > Full suite of voice services, text, and multi-media messaging
- > Voice over LTE (VoLTE) optional
- > Wireless Wide Area Network Backhaul via integrated 802.11 or external IP connectivity
- > Managed WiFi hotspot/Backhaul
- > Virtualized platform support for 3rd party applications
- > Self-Organizing Network (SON) features (optional)
- > Selective Availability Anti-Spoofing Module (SAASM) GPS Support (optional)
- > Mobile User Objective System (MUOS) Support
- > Land Mobile Radio (LMR) Support (optional)
- > Scalable WiFi Mesh Design
- > 3rd Party Application Hosting



Communications Security

Establishing a "Bring Your Own Device" (BYOD) environment within the government and military, requires additional security and protection to handle cyber-attacks as well as maintain information assurance. With the LYNX, BYOD is simplified and secured by allowing agencies to "Bring Your Own Trusted Network" (BYOTN) as well. With complete control of the wireless network and device(s), secured communications can extend out to every tactical mile, avoiding the risk of traversing unsecured networks. Enabling multiple levels of encrypted communications, the LYNX supports integrated security enclaves that can be controlled locally or from the cloud.

LYNX supports locally controlled push-to-talk (PTT) capabilities from Motorola, Raytheon and Harris. Critical in emergency and rapid response situations, PTT is a key communications component, requisite for first responders. Several systems can network together via IP, thus expanding the footprint and coverage of the system. This networking can be WiFi mesh configured to occur dynamically and adjust as the network configuration changes.

Backhaul Connectivity

LYNX offers multiple backhaul connectivity options, to securely connect between multiple locations. The integrated 4G LTE WWAN allows systems to interlink connectivity and coverage at distances up to 3km apart. Optionally the units can be integrated with an external microwave, Very Small Aperture Terminal (VSAT) or MUOS for the establishment of remote IP connectivity.

ISR Mission Capabilities

LYNX has been designed to support intelligence, surveillance, and reconnaissance (ISR) missions. When operating in an unknown environment and scanning for mobile 4G LTE devices, the patented iCore® management software helps detect and geolocate unknown devices within the RF umbrella. This grants capabilities which include, logging and tracking, device denial and counter improvised explosive device (C-IED) detection.

Specifications

Service Capabilities

- > Multi-media messaging services
- > Voice services (VoLTE)
- > Short messaging services
- > IPsec VPN (3DES, AES 128/256)
- > WiFi hotspot
- > MBMS (optional)

Interface Capabilities

- > WWAN/Wifi Backhaul
- > Dual auto-sensing 10/100/1000 Ethernet
- > Standards-based SIP/VoIP
- > S1 and X2 handoff

Operations & Maintenance

- > Self-Organizing Network (SON)
- > Platform-Independent
- > User Interface
- > Local or Centralized Management
- > Fully operational in minutes

Standard Military Interfaces

- > SAASM GPS Receiver support
- > MGRS CoT support
- > MUOS support

Payload Capabilities (optional kits)

- > Man-Pack
- > Vehicle
- > Maritime
- > Airborne

Integrated Functional Capabilities

- > MME
- > SGW
- > PSW
- > HSS
- > PCRF
- > eNodeB

Frequency Band Capabilities (MHz)

- > LTE Bands - 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 25, 26, 41
- > 802.11 2.4/5.8 a/b/g/n/ac
- > Baseband Capacity: 32 Simultaneous active users (SAU), up to 128 RRC connected users

SWaP

- > Size: 12" x 5.5" x 5.75"
- > Weight: 14.5 lbs without the battery
- > DC Power: 12-33 v
- > Power Consumption: <100 Watts

Standard Compliance

- > 3GPP compliance

Designed to meet:

- > MIL-STD-810G
- > MIL-STD-461F

RF Capabilities

- > Micro, Pico
- > SIS and MIMO configuration available
- > 8 watts nominal per Tx port

Operational Capabilities

- > Standalone
- > WiFi Mesh

Founded in 1991, Tecore Networks, Inc. is headquartered in Hanover, MD.

To learn more about Tecore, visit www.tecore.com.