4G LTE LYNX ™ Network in a box ® (NIB)

Broadband Wireless Communications for Standalone or Integrated Operations

Tecore's LYNX NIB Platform delivers macro 4G LTE wireless service for rapidly deployable communications to wireless operators. The LYNX NIB leverages a size optimized all-IP based architecture, delivering the most compact, adaptable, and cost-effective rapid response tactical platform. The highly portable mobile platform is small enough to qualify as carry-on luggage on most airlines.

Tecore has incorporated over 23 years of industry leadership in scalable wireless systems into the design of the LYNX NIB architecture. It leverages the patented iCore portfolio of 3GPP compliant software-defined 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 NIB enables a broad range of deployment scenarios for tactical deployment, emergency management,armed forces or peacekeeping missions, and mobile communications networks in transit.

Capabilities

Each LYNX NIB system provides standard 4G LTE compliant voice, text, MMS, and megabit Internet services for local users as a standalone system or as part of a larger communications network. The LYNX NIB consists of two size optimized platforms supplied by single or dual software defined radios (SDRs)

Multiple LYNX NIB locations can be networked together to provide end users with ubiquitous access from site to site, as well as accessing international voice calling services, the Internet, and social media locally or through a centralized gateway.

Benefits & Features

- All-in-one network solution, space-optimized at less than 0.4 cubic feet
  - Full suite of voice services, text, and multi-media messaging
    - Integrated 4G LTE WWAN/WiFi backhaul
    - WiFi hotspot
      - Virtualized platform support for 3rd party applications

- Multiple operation modes including standalone private networks, multi-site, or roaming interconnect with commercial operators networks
  - Interworking/connectivity with existing infrastructure
    - Integrated GPS (Optional)
    - 2G Support (Optional)

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Several LYNX NIB systems can network together via IP, thus expanding the footprint and coverage of the system. This networking can be configured to occur dynamically and adjust as the network configuration changes.

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 NIB, BYOD is simplified and secured by allowing users to "Bring Your Own Network" (BYON) as well. With control of the wireless network and device, secured communications can extend out to the first tactical mile, avoiding the risk of traversing unsecured networks. Enabling multiple levels of encrypted communications, the LYNX NIB supports integrated security enclaves that can be controlled locally or from the cloud.

Backhaul Connectivity

The LYNX NIB 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 or VSAT for the establishment of remote IP connectivity.

Specifications

Service Capabilities
- Internet/packet data services
- Multi-media messaging services
- Voice services
- Short messaging services
- IPSec VPN (3DES, AES 128/256)
- WiFi hotspot
- MBMS (optional)

Operations & Maintenance
- Platform-Independent User Interface
- Local or Centralized Management
- Fully operational in minutes

Integrated Functional Capabilities
- MME
- HSS
- PGW
- SGW
- PCRF
- eNodeB
- WiFi transceiver
- EMS

Interface Capabilities
- Integrated 4G LTE WWAN/ WiFi Backhaul
- Standards-based 10/100/1000 Ethernet
- S1 and X2 handoff
- Standards-based SIP/VoIP
- USB

Frequency Band Capabilities (MHz)
- LTE - any 3GPP band
- Duplex FDD/TDD
- 802.11 2.4/5.4 - A/B/G/N/ AC

Multi-Technology Capabilities
- 4G LTE
- Single or dual eNodeB
- Single or dual Wifi
- 2G GSM Single or Dual TRXs (optional)

Operational Capabilities
- Standalone
- Integrated
- Battery holders (optional)
- Pole mount (optional)

RF Capabilities
- SISO/MIMO
- 8 Watts nominal per Tx port
- Optional Integrated GPS

Size, Weight, Power	CoreCell - L Single SDR	CoreCell - L Dual SDR
Size Inches (L x W x H):	12 x 5.5 x 5.75	13 x 6.9 x 7.1
Weight (Ilbs):	14.5	16.5
MAX Power Consumption (Watts):	175 w	225 w