



LXN 7900 FIXED LTE 900 MHZ INFRASTRUCTURE

SECURE AND RESILIENT BROADBAND SOLUTION FOR CRITICAL OPERATIONS

The LXN 7900 is a fixed LTE broadband infrastructure solution for organizations looking to establish a dedicated private broadband network. It provides the high security, high resiliency and low latency required to quickly and securely process information to enable effective mission-critical operations.

DESIGNED FOR YOUR MISSION CRITICAL NEEDS

Secure and resilient, the LXN 7900 gives users fast, reliable broadband connectivity with real-time access to voice, video, data and chat. It includes hardened servers and the option for a geo-redundant solution for extra resiliency.

Designed to take advantage of NFV (Network Function Virtualization) architecture, the LXN 7900 is highly scalable and can grow with your business needs.

Being a private, closed network solution the LXN 7900 provides you with a broadband network dedicated to you – with better control and priority than commercial carriers can provide. The LXN 7900 supports 3GPP R15 to provide optimized communications for IoT devices, as well as the other capabilities in the 3GPP release.

MORE PRODUCTIVITY. OPTIMIZED COST.

The LXN 7900 gives organizations the opportunity to optimize costs by replacing multiple older networks that require separate management, with an energy efficient, performance-optimized, mission-critical network.

INTERNET OF THINGS

Motorola Solutions LXN 7900 allows agile deployment of NB-IoT and/or LTE-Cat-M core networks as a private network. This allows for end users like smart cities, industrial and enterprise campuses, utilities and other verticals rapidly to take advantage of dedicated IoT solutions using a distributed/regionalized architecture rather than incur the time delay, cost and complexity of monolithic centralized solutions.

TOTAL FLEXIBILITY

Choose how you deploy the network. The versatile LXN 7900 can be hosted as a CAPEX solution within your data centre or as a managed service within your data center or at a Motorola Solutions data centre; with a mix of CAPEX and OPEX based on your business needs.



KEY FEATURES

The LXN 7900 provides a secure and scalable fixed infrastructure broadband solution with a range of competitive features:

BUILT FOR CRITICAL INFRASTRUCTURE

Real-time access to fast mobile broadband for voice, video, data and chat.

Keep your network working at optimal performance through centralized network configuration, subscriber provisioning, network performance management and fault monitoring. With priority management, the LXN 7900 ensures that if there is any network congestion that higher priority mission-critical traffic gets through by taking precedence over lower priority traffic.

VERSATILE AND COMPATIBLE

The LXN 7900 is a flexible solution that utilizes standards-based technology for interoperability with equipment from multiple vendors.

The LXN 7900 can be used across a number of use cases from different enterprise verticals. The solution supports roaming interfaces to connect with public carriers providing your users with uninterrupted use of their applications when they need to move outside the coverage of the LXN 7900.

IoT READY

The LXN 7900 allows for agile deployment of NB-IoT and LTE-Cat-M equipment letting you take advantage of dedicated IoT solutions. It uses a distributed, regionalized architecture, making deployments faster and more cost-effective.

SCALABLE FROM DAY ONE

Designed for today, tomorrow and beyond. Start small and expand your solution as required based on your specific needs, demands and challenges.

RESILIENT AND REDUNDANT

The LXN 7900 was designed from the ground up to offer resiliency in challenging environments. Its locally redundant architecture allows continued operation if any single component fails.

And if you operate in high-risk areas, the LXN 7900 also supports geographic redundancy: if the local system is damaged or destroyed, a backup system in a remote location continues to operate the network.

SAFE AND SECURE

The LXN 7900 uses hardened COTS servers. To reduce vulnerabilities we use the US Department of Defense Security Technical Implementation Guide's (STIG's) methodology for standardizing security protocols to enhance security for the software and hardware components of the LXN 7900 solution.

With centralized syslog message collection within the LXN 7900 and from remote sources including eNodeBs, you can record events and proactively protect and maintain your system.

Critical connections are protected from man-in-the-middle attacks and eavesdropping with a secure IPSec connection between the Base Station and the Core.

The LXN 7900 is 3GPP and NIST 800-187 compliant for over-the-air connection security. In addition to control messages and user data encryption it supports strong (EEA2) encryption and (EIA2) integrity protection.



RESPONSIVE. RELIABLE. RESILIENT.



CHALLENGE: Optimize communication backhaul for various IoT assets

An oil and gas company is looking to enable mission critical IoT process automation and monitoring to achieve greater levels of productivity while facilitating safer operations. The growing number of sensors and the real-time nature of those sensors and other data streams calls for guaranteed low latency communications. The solution is the LXN 7900 private mission critical broadband network where the company has complete control over data priority settings and who can access the system.



CHALLENGE: Simplify communications with a single network

Over time, a utility company has amassed numerous highly complex communication systems. As business has grown, separate, dedicated networks have been deployed for each specific application, all of which work independently from one another. Each of these networks has a cost associated with running it. The solution is to replace all these networks with a single LXN 7900 resilient geo-redundant system allowing seamless management and optimized operational efficiency.



CHALLENGE: Invest in a future-proof communication network without straining your budget

A startup mining company is looking for a cost-effective network, starting on a small scale, that will provide secure and resilient communications immediately, but with the ability to evolve with its needs over time. The solution is the LXN 7900. And because it is designed to 3GPP standards, the network will continue to evolve with new functionality to meet new challenges.



CHALLENGE: Legacy communications infrastructure is struggling with today's demands

With a large legacy communications infrastructure, a utility company is suffering extreme stress during peak periods. The communications network is struggling with the throughput and latency needed to respond to the information provided by real-time sensors. By investing in the LXN 7900, the company can quickly and cost effectively establish a resilient network that can handle existing demands and have the ability to scale for future demands.



SPECIFICATIONS

LXN 7900 SOLUTION SPECIFICATIONS

Maximum eNodeB Supported	Approximately 300, depending on configuration
Maximum Users	Approximately 100,000, depending on configuration
Maximum IoT Endpoints	Approximately 2 million, depending on configuration
IoT Features Supported	eDRX, PSM, DoNAS, IP and non-IP Data Delivery (NIDD)
Throughput	Approximately 5 Gbps, depending on configuration
Number of Evolved Packet Core Servers	Minimum 2 Maximum based on subscribers and throughput
Redundancy	Local or Geographic

EVOLVED PACKET CORE (INDIVIDUAL SERVER SPECS)

CPU	2 x 2.5GHz/12-core/30MB/120W
RAM	128GB
Storage	1TB SSD
Networking	2 x 4 x 1 GbE embedded
Power and Cooling	Hot Plug Power, High Performance Fans
Dimensions	Height: 1.7" (4.32cm) Width: 17.11" (43.47cm) Length: 27.5" (69.85cm)
Weight	27 lbs (12.25 kg)
Form Factor	1U

ENODE B

Band	<ul style="list-style-type: none">• 897.5-900.5, 901-902 MHz uplink / 936.5-939.5, 940-941 MHz downlink• Flexible channel sizes: 200 KHz NB-IoT, 1.4 MHz, and 3 MHz (901-902 MHz / 940-941 MHz: 200kHz NB-IoT only)• 2x2 MIMO support• Standard range up to 50 km (31 mi.)• For the U.S. FCC 900 MHz band and Narrowband PCS band, LTE channel deployable next to LMR channel, with no guard band• This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained
Power	<ul style="list-style-type: none">• Output power – Up to 80 Watts per port (up to 160W/sector)• Supports 120 VAC power supplies• Battery backup options available
Network	<ul style="list-style-type: none">• Gigabit Ethernet transport network interface• Full IP connectivity• Tightly integrated network and site management system

OPTIONS

Partner your LXN 7900 infrastructure with a range of equipment including base stations and user devices for powerful integrated communications. Motorola Solutions can install your network and provide backhaul capability and firewalls to get you up and running quickly.

LXN 7900: A PRIVATE FIXED LTE BROADBAND SOLUTION

The LXN 7900 provides a resilient and reliable LTE broadband solution with full US DoD security protocols, IPSec encryption, carrier-grade capacity and robust priority management. The LXN 7900 solution delivers a secure, versatile and scalable solution that gives you full control of your communications.

When your broadband communications are critical, and your needs are unique, trust the leader in mission-critical communications.

To learn more about our LTE Broadband Solutions, visit motorolasolutions.com/PrivateBroadband



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