

iCore® Network in a Box®

All-in-One Network Solution

Tecore's iCore® Network in a Box® (NIB) is the industry's first all-in-one, transportable and ready-in-minutes network solution. The all-in-one portable integrated hardware and software box is capable of supporting an LTE Core Network, IMS-Core in addition to an eNodeB and Remote Radio Head (RRH).

The iCore NIB provides highly operational availability through continued LTE coverage in a small, compact, portable form factor to meet critical public safety needs when backhaul connection to the Macro EPC is lost. A number of broad deployment scenarios include extreme disaster, special rescue missions, emergency management, armed forces, peace keeping missions and mobile communications networks in transit.

Tecore has incorporated almost 30 years of industry leadership in scalable wireless systems into the design of the iCore NIB architecture. The iCore NIB leverages the patented iCore portfolio of 3GPP-compliant software-defined core network elements and E-UTRAN 3GPP compliant access portion of the network.

The iCore NIB provides voice, text, video and packet data services through standards based network elements developed to relevant 3GPP standards.

Residing in the iCore NIB are Virtual Machines (VM) that include Network Core, IMS-Core, Base Band Unit (BBU) and Remote Radio Head (RRH) elements. This nodal component of the Evolved UMTS Radio Access Network (E-UTRAN) provides a seamless LTE network solution. These enhanced integrated techniques translate into better quality of service and higher bit rates for packet data-intensive applications in addition to being lighter in weight.

With this flexible architecture supporting network functions virtualization, the iCore NIB can be deployed quickly to meet the operator's requirements in broad deployment scenarios.

The iCore NIB is a robust all-in-one integrated solution enabling comprehensive management and operations of network and has been successfully deployed in commercial, government, and private networks on a global basis.



FEATURE CAPABILITIES

Voice (VoLTE)
Voice Over IP (VoIP/SIP)
Messaging
Internet
IP Data
Self-Organizing Network (SON)
Commercial Mobile Alert System (CMAS)
Earthquake and Tsunami Warning Service (ETWS)

INTEGRATED FUNCTIONAL CAPABILITIES

MME/SAE Gateway
HSS/AuC/AAA
SMSC/MMSC
PCRF
IMS-Core for VoLTE/SMS/MMS
Base Band Unit (BBU)
Remote Radio Head (RRU)

OPTIONAL ACCESSORIES

Tactical Battery Pack
Deployable Mast
SIM Cards
Handsets
Manpack Frame
Ruggedized Laptop
Antennas

FEATURES AND BENEFITS

- Self-contained, secure, LTE Network-in-a-Box (NIB)
- Supports up to 1000 Simultaneous Active Users
- Requires no existing infrastructure
- Operates as Secure Standalone or Integrated
- Integrate 4G LTE capabilities into existing networks
- Operates in any LTE frequency band (3GPP or Unlicensed)
- Scalable to meet customer requirements
- Adaptable for Air, Ground, Maritime, Dismounted, and
- Network-On-The-Move Operations

iCore Network in a Box Specifications



GENERAL

Dimension	16.91 x 7.87 x 6.16 in 42.95 x 19.98 x 15.64 cm
Weight	30.8 lbs 14 kg
Power consumption (Typical)	300 watts
Voltage	DC 27V or -48V
RF output power	40W (20W per port)
Antenna connector port	2 x 4.3/10
Operating frequency	380 MHz to 4400 MHz
Bandwidth supported	1.4, 3, 5, 10, 15, 20 MHz
3GPP compliance	3GPP Release 12+
Duplex method	FDD/TDD
Operating temperature	-40° F to +131° F -40° C to +55° F
Latitude	6.21 miles 10 km

INTEGRATED FEATURES

Digital Pre-Distortion (DPD)

Crest Factor Reduction (CFR)

Alarm and Fault Management; Including forward power, VSWR and operating status

CAPACITY DATA

Active Users	Scalable up to 1,000 SAU per baseband unit
Downlink Peak L1 Throughput	150 Mbps with 2x2 MIMO in 20 MHz bandwidth
Uplink Peak L1 Throughput	75 Mbps with 2x2 MIMO in 20 MHz bandwidth

INTERFACE DATA

OAM	via CPRI or 10GbE
MIMO	2x2
Fiber Links	3 CPRI
Data Interface	2 GbE Base-T ports 2 USB 2.0 ports
GPS	Local or GPS Clock Synchronization

ENVIRONMENTAL DATA

Relative Humidity	+20% to +80%
Options	Standard and Milspec



To learn more about our technology, products, and services, call us at [+1.410.872.6500](tel:+14108726500) or visit us at www.tecore.com ©Tecore Inc.

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