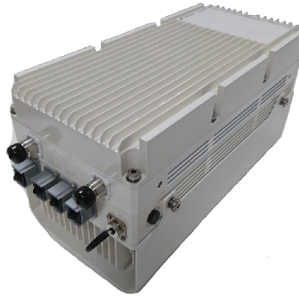


Isolated Operation for Public Safety (IOPS) Network in a Box[®]

Tecore's Isolated Operation for Public Safety (IOPS) Network in a Box[®] (NIB), known as IOPS NIB, is the industry's first all-in-one, transportable and ready-in-minutes network solution capable of supporting an LTE Core Network IMS-Core in addition to an ENodeB and 2x20 watt integrated Remote Radio Head (RRH). By delivering multiple access technologies and streamlining the network through an IP-based architecture, it provides responders with the most compact, adaptable, and cost-effective platform for rapidly deploying.



Tecore has incorporated almost 30 years of industry leadership in scalable wireless systems into the design of the IOPS NIB architecture. The IOPS NIB 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 the network. The Evolved UMTS Radio Access Network (e-UTRAN) delivers the 3GPP-compliant access portion of the network. The robust capability set, compact form factor, and cost-effectiveness of the IOPS NIB enables a broad range of deployment scenarios for emergency management, armed forces or peacekeeping missions, and mobile communications networks in transit.

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

Residing in the IOPS NIB are Virtual Machines (VM) that can be integrated with Tecore's Base Band Unit (BBU). This nodal component of the e-UTRAN provides a seamless LTE network solution. These enhanced techniques translate into better quality of service, higher bit rates for packet data-intensive applications.

With a flexible architecture supporting network function virtualization and scalability from fewer than 100 to tens of thousands of mobile subscribers, the IOPS NIB can be deployed quickly to meet the customer requirements in multiple deployment scenarios.

The IOPS NIB is a robust all-in-one integrated solution (Core Network and e-UTRAN) enabling comprehensive management and operations of network and has been successfully deployed in commercial, government, and private networks on a global basis.

- Self-contained, secure, LTE Network-in-a-Box (NIB)
- Supports up to 1000 Simultaneous Active Users
- Supports up to millions of subscribers in HSS
- 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
- Expand coverage to 3 sectors by adding 2 Corecell-RH units

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
PCRF
Base Band Unit (BBU)

Optional IOPS Capabilities

Push-to-Talk (PTT)
Multimedia Broadcast Multicast Service (eMBMS)
View Live Camera Feed
View Real-time Sensor Data
Integrate with C4ISR and Situational Awareness Platform
Emergency Location Capabilities
IMS-Core for VoLTE/SMS/MMS

Optional IOPS Accessories

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

FEATURES AND BENEFITS

SPECIFICATION		MACRO 20W	MICRO 5W	REGULATORY	
Power consumption (Typical)		430 watts	120 watts	LTE Compliance	ETSI TS 136 104 Release 12 Wide Range BS Cat.
RF output power		40W (20W per port)	10W (5W per port)	Electrical Safety	CSA C22.2 No 60950
Weight		40.7 lbs / 18.5 kg	30.8 lbs / 14 kg	Environmental Conditions	ETSI EN 300 019-1 Class 1.2 ETSI EN 300 019-2 Class 2.3 ETSI EN 300 019-4 Class 4.1 IP67
Dimensions		16.9 x 7.9 x 8 in / 43 x 20 x 20 cm	16.9 x 5.9 x 8 in / 43 x 15 x 20 cm	Inflammability	UL94
MIMO		2x2		CAPACITY DATA	
Antenna connector port		2 x 4.3/10		Active Users	Scalable up to 1,000 SAU per baseband unit
Operating frequency		380 MHz to 4400 MHz		Downlink Peak L1 Throughput	200 Mbps with 2x2 MIMO in 20 MHz bandwidth
Max No. of carriers per TX/RX		1 or 2		Uplink Peak L1 Throughput	75 Mbps with 2x2 MIMO in 20 MHz bandwidth
ORI Interfaces		2 CPRI to add 2 RRHs for 3-sector configuration		Carrier Aggregation	Supported
OAM		via CPRI or 10GbE			
Bandwidth supported		1.4, 3, 5, 10, 15, 20 MHz			
3GPP compliance		3GPP Release 14			
Duplex method		FDD/TDD			
Voltage		DC 27V or -48V			
Operating temperature		-40 F to +131 F / -40 C to +55 C			
Management interface		Local Gigabit Ethernet			
Rx Input Level		+35dBm Maximum			
LTE sensitivity (5,10, 20 MHz)		< -103dBm Typ.			
Integrated		<ul style="list-style-type: none"> Digital Pre-Distortion (DPD) Crest Factor Reduction (CFR) Alarm and Fault Management- Including forward power, VSWR and operating status GPS Receiver 			

REMOTE RADIO HEAD (CORECELL-RH)

SPECIFICATIONS AND FEATURES



SPECIFICATION	MACRO SITE	MICRO CELL	SMALL CELL
RF output power	40W (20W per port)	10W (5W per port)	1W (0.5W per port)
Dimensions	11.6 x 7.9 x 6 in / 29.46 x 20.06 x 15.24 cm	11.6 x 7.9 x 4.7 in / 29.46 x 20.06 x 11.9 cm	11.6 x 7.9 x 3.15 in / 29.46 x 20.06 x 8 cm
Power consumption	200 watts	90 watts	50 watts
Weight	26.4 lbs / 11.9 kg	22 lbs / 9.97 kg	11 lbs / 4.98 kg
i/Q connectivity	CPRI or 10 GbE	CPRI or 10 GbE	CPRI or 10 GbE
Management interface	Local Gigabit Ethernet	Local Gigabit Ethernet	Local Gigabit Ethernet

FEATURES

Integrated Digital Pre-Distortion (DPD)

Integrated Crest Factor Reduction (CFR)

Integrated alarm and fault management including forward power, VSWR, and operating status.