Product Specifications

iCore® 2G/3G/4G/5G Multi-Technology Core

Features and Benefits

Key Features

• Support for WCDMA, HSPA, HSPA+, LTE, GSM, and CDMA from common object code

• 3GPP-compliant through Release 15+

• Includes option of integrated RNC
to streamline network, manage RAN from multiple technologies or vendors simultaneously, and lower total cost of network ownership

• All core network functionality: UMSC/MSC/VLR, MME/SAE Gateway, HLR/HSS, AuC/AC/AAA, SMSC/MMSC, Prepaid Gateway, SGSN/GGSN

• Commercial, government, and military enterprise

• Security features including the major standards-based algorithms
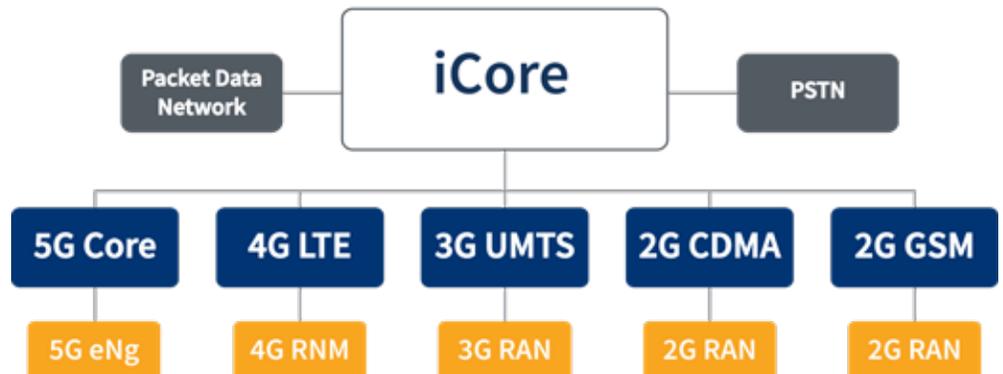
• 64-bit Linux-based processing

The iCore® is the world's first complete, multi-technology mobile core network available in three distinct implementations targeted at commercial, private, government, military, and OEM market segments.

This platform delivers one or multiple core network subsystems for LTE, HSPA+, and GSM enabling support for the most widely deployed mobile technologies in a broad range of applications and deployment scenarios. The common set of object code implements support for all protocols from a single converged platform. The U.S. Patent and Trademark Office has granted Tecore two patents for its multi-protocol mobile switching platform (U.S. Patents Nos. 6,912,230 & 7,733,901).

Utilizing a carrier-grade, high-availability Linux platform, the next-generation iCore© provides a solution for million-subscriber markets as well as distributed scalability across any sized market. With integrated media gateway capabilities and a choice of stand-alone or distributed architectures, the system offers an efficient path to convergent wireless technologies and a competitive technology roadmap for tomorrow's markets. The optional integrated RNC enables operators to manage RAN from multiple technologies-or vendors-simultaneously.

iCore© leverages Tecore's track record of deploying GSM, 3G, and multi-protocol networks around the globe- as well as its patented software-defined architecture guided by 3GPP/3GPP2 and IMS standards- to deliver a comprehensive, converged mobile platform.

Tecore Networks iCore Architecture

iCore Specifications

Software	
Core Network Capabilities	UMSC/MSC/VLR
	MME/SAE Gateway
	HLR/HSS
	AuC/AC/AAA
	SMSC/MMSC
	Prepaid Gateway
	SGSN/GGSN
	RNC
Prepaid Services	Integrated and IN Based Services
	Award Winning OTA Prepaid Service
	Credit Card Recharge, Multi-Top Up,
	Balance Transfer
	USSD Callback S
Security Algorithms	Milenage, Kasumi, 128-EEA1, 128-EEA2, 128-EIA1, 128-EIA2
	GSM Algorithm Security Pack
	CDMA Authentication Algorithm Security Pack
Performance	1,000,000 BHCA
	1,000 SS7 transactions/second
Operating System	Linux-based processing
Multi National Regulatory Feature System	Intercept/Monitoring
	Emergency Location Services
	Number Portability
Subscriber Features	Call Forwarding Feature Pack
	Calling Line Feature Pack
	Multi-Party Feature Pack
	Call Barring Feature Pack
	Operator Determined Barring Feature Pack
Vocoders	G.711 PCM (mu/A-Law) at 64 kbps
	G.729B CS-ACELP at 8 kbps
	GSM 6.10 Full Rate at 13.2 kbps
	EVRC at 4.0 kbps and 8.55 kbps
	AMR at 4.75-12.2 kbps
	All vocoders are supported with: bundling, VAD, transcoder free
Patents	Multi-protocol mobile switching platform: U.S. patent numbers

Commercial Carriers

The multi-protocol, multi-interface nature of iCore© allows operators to maximize service quality and revenue from existing operations while simultaneously rolling out a next-generation network. Mobile operators can also build overlay (for example, GSM-over-CDMA, CDMA-over-GSM, or 4G-over-2G) networks with integrated switching, simplifying the network and reducing costs.

Government/Military Systems

iCore© is ideal for tactical and first responder systems where access to multiple radio access technologies, streamlined operation and mission-critical security features are essential. This complete, multi-technology voice and data-capable mobile network - contained in a single ruggedized case - can be operational in one hour. With scalability based on stand-alone or integrated operations, this system is ideal for environments ranging from embassies to the battlefield.

Enterprise Mobility Management

Enterprise IT managers need a comprehensive platform to address the wide range of mobile devices accessing their network. They have few options that will support all major access technologies in a cost-effective, streamlined manner. In the iCore©, they can find an unmatched combination of protocols, feature set, and enterprise-class form factor. The iCore also supports the all-in-one 3G-4G enterprise femtocell system, tailor-made for medium and large business environments.