

iCore® HSPA/HSPA+ Radio Network Controller

The iCore® HSPA+ Radio Network Controller (RNC) leverages the foundation technologies of the Tecore portfolio: completely standards-based, all-IP, and scalable — with pico, micro and macro versions to fit a range of network sizes.

Tecore has adopted 3GPP for 3G and 4G infrastructure due to; the robustness of end-to-end transport via IP, the introduction of the IP Multimedia Subsystem (IMS) core network, and support for multiple access technologies. The RNC controls the NodeBs, performs radio resource management, handles security functions, congestion control, admission control, and delivers voice traffic to the media gateway and data traffic to the Serving GPRS Support Node (SGSN). Tecore's RNC is compliant with 3GPP releases 5, 6 and 7 for an IP centric solution interoperable with any standards-compliant NodeBs, and even supporting multiple vendors' NodeBs simultaneously.

The RNC is also available as an integrated module on the iCore platform. iCore is a scalable, all-IP core network platform capable of supporting 2G GSM and 3G networks simultaneously. Together with the iCore UMTS Mobile Switching Center (UMSC) and Home Subscriber Server (HSS), the RNC enhances support for 3G services and further streamlines the smallest multi-technology Network-in-a-Box (NIB)® in the industry. Rural and emerging mobile network operators can optimize their total cost of ownership by avoiding the expense of separate RNCs and supporting multi-vendor radio access networks from one core network. These operators can utilize any 3GPP standards-compliant NodeBs with Tecore's iCore for their RNC and core network elements. Given the continuing dominance of voice traffic compared to data, iCore's capability to switch voice traffic in a centralized manner represents a significant network cost saving for the operator.

Rural and emerging mobile network operators have waited for the national carriers to prove out 3G services and now the industry is moving swiftly to catch up. These operators need a lower threshold of investment, the ability to scale the network with the subscriber base, and a built-in path to 4G. Tecore provides the optimal solution by enabling HSPA+ on a multi-technology core that can bridge protocols and generations.

FEATURES + BENEFITS

- Compliant with 3GPP TS25.401 V9.0.0 & 410 V9.0.0 R7 (backward compatible with R5 and R6)
- IP-centric solution
- HA-Capable
- Scalable from 1-1,000 NodeBs
- Simultaneous support for multiple vendors' standards-based NodeBs



SPECIFICATIONS

General Capabilities	Compliant with 3GPP TS25.401 V9.0.0 & 410 V9.0.0 R7 (backward compatible with R5 and R6)
Core Interfaces	Iu-CS - UDP/RTP Iu-PS - UDP/GTP-U Iu-R, Control Plane: RNSAP over SCCP/ M3UA/SCTP, User Plane: Framing Protocol using UDP
NodeB Iu-B Interfaces	Control Plane: NBAP using ASN.1 User Plane: FP over UDP
Lawful Intercept/Positioning	AGPS
Clock Synchronization	NTP PTP
O&M Capabilities	Client/Server SNMP
Operating System	Linux-based processing/Centos



Commercial Carriers

The RNC can be deployed on a stand-alone basis, on a carrier-grade platform, as part of a macro 3G network. It can also be integrated into a complete, multi-technology iCore network from Tecore - allowing operators to reap revenues from 2G services while fulfilling demand for next-generation devices and applications.

Rural and Remote Systems

The challenge facing many operators today is how to provide service to rural and remote areas in an economic fashion while maintaining the same services as their main network. For these scenarios, Tecore offers the Rural Village System (RVS). The RVS turns remote buildouts that are traditional loss leaders to revenue potential. The RVS is a flexible network solution for distributed deployments in multiple wireless technologies and includes the iCore network elements and any combination of RAN elements (2G GSM and 3G HSPA+) to meet the operator's needs. Targeted at scenarios for hundreds to several thousand subscribers, the RVS provides a compliant solution that extends the network to previously unreachable (technically or economically) locations.

Government and Military Systems

The RNC is ideal for tactical and first responder systems where the latest communication technologies, streamlined operations, and mission critical security features are essential. A 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.



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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