# radisys

# MobilityEngine<sup>™</sup> eNodeB

Protocol Software for LTE Networks

#### FEATURES

- Comprehensive radio resource management (RRM)
- Self-Organizing Networks (SON) capability
- VoLTE-, CFSB- and SRVCC capable
- Radio Interference Management
  and Radio Environment Map (REM)
- Compliance with latest 3GPP small cell standards
- IOT with leading femtocell gateway, EPC and handset vendors
- Trillium LTE protocol stacks supporting Layer 2 and above signaling and data plane

#### BENEFITS

- Platform-independent software with integrated support for all major specific SoCs
- Off-the-shelf software built from the ground up for usability and maintainability
- Flexible architecture for rapid application extension and simplified future upgrades to cloud and centralized environment
- Deployment-proven with major trial and deployment activities across the globe
- Professional Services and global technical support from trials through deployments

### **Turnkey LTE-advanced Solutions**

The Radisys MobilityEngine<sup>™</sup> portfolio of software delivers pre-integrated, deploymentready 3G and LTE solutions—accelerating mobile operators' time-to- market. The eNodeB<sup>™</sup> LTE software is a turnkey solution built on the foundation of market-leading Trillium LTE protocol software and applications with RRM, SON and OAM. eNodeB supports both FDD and TDD deployments, enabling customers to leverage one LTE solution that is able to scale easily from small to large deployments. It supports carrier-grade, application-ready C-RAN platforms, allowing mobile operators to maximize the speed of network functions running in a virtualized environment.

#### Trusted Partners with Market-Leading Silicon Vendors

Your customers benefit by working with Radisys because of our integration and verification processes with market-leading silicon vendors including: Broadcom, Intel, Octasic and Qualcomm. This further amplifies our ability to bring your solution to market—faster.

- Integrated and system verified with leading System on a Chip (SoC) platforms, providing an off-the-shelf, deployment-ready implementation
- Provided as a source code, eNodeB includes the Trillium LTE eNodeB application, radio resource management (RRM), radio environment monitoring (REM), self-organizing network (SON), schedulers, OAM and all Trillium protocol layers for L2 and L3
- Comprehensive Professional Services Radisys has a strong technical team of experts with hands on expertise building and deploying systems. Our team has often been used as extensions to our customer's R & D teams.

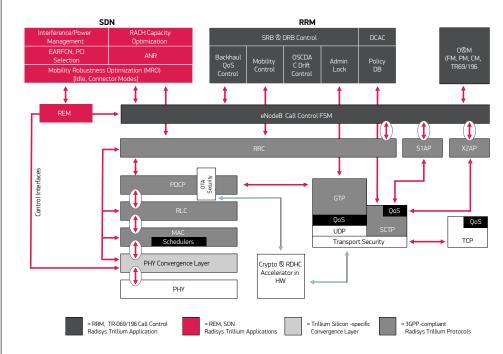


Figure 1: A look at an optimized small cell use case for a residential, enterprise and outdoor deployment with Innowireless.

SI. No.	eNB Layer	Specification Compliance
1	MAC	3GPP TS 36.321, 3GPP TS 36.211, 36.212, 36.213, version 9.4.0
2	RLC	3GPP TS 36.322, version 9.3.0
3	PDCP	3GPP TS 36.323, version 9.0.0
4	eGTP	3GPP TS 29.274, version 9.3.0 3GPP TS 29.281, version 9.3.0
5	S1AP	3G TS 36.413, version 9.6.0, v10.6.0
6	X2AP	3G TS 36.423, version 9.5.0, v10.6.0
7	RRC	3G TS 36.331, version 9.5.0, v10.6.0

# Specifications

FEATURE	DESCRIPTION
Zero Touch/Plug n Play	TR-069/196/181 support Discovery and registration Auto-Configuration (SON) Fault management Performance management SW/FW upgrade and downgrade
Location Services	Location detection Location locking Home zone indication
Security	IPsec security integration Device authentication using certificates Trusted Platform Management (TPM)
QoS Management	DSCP, 801.1p, Diffserv Dynamic admission control Priority handling PS sessions (per policy) VLAN tagging
Bearer Services	3GPP R9 e-RAB combinations RAB Single/Multi PS RAB PDP contexts Direct tunnel Supplementary services
Synchronization	Using macro (2G, 3G, LTE) Using GPS (fit option) Using NTP/PTP/IEEE 1588
Mobility	Intra-LTE hand-in, hand-out Inter-RAT Hand-out to HRPD 3GPP2 CDMA, WCDMA HSPA Idle mode mobility between macro and small cell Enterprise mobility (inter small cell group) Connected mode mobility, handover from small cell to macro Active long/short DRX support Circuit switched fall back (CSFB) to 1X and WCDMA CSFB and SRVCC capable
Auto-configuration	Optimized EARFCN selection Optimized PCI selection Tracking Area Code (TAC) strategy Optimized TX power setting for UL and DL Automatic neighbor cell relation (ANR) Optimized cell selection/reselection parameters Handover algorithms
Radio Resource Management	Dynamic call admission control Dynamic resource control (RAB allocation / modification) Bandwidth control (backhaul and air interface) Policy enforcements Enhanced UL and DL interference mitigation Policy-based rejection (RRC level) Policy-based redirection (RRC level) Policy-based relocation (S1AP level)

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