

# aLTE eNB

Complete LTE eNB based on open source

## Overview

aLTE eNB stands for aLTernative eNB. It is a fully functional LTE base station (eNB) running on a PC with RF-frontend functionality provided by a commercial off-the-shelf SDR hardware. With HSS and EPC provided as part of the package a customer obtains a complete “network-in-a-box” solution, Figure 1. It is based on open-source protocol stacks,

but unlike most of them aLTE eNB is easily configurable, seamlessly running and equipped with monitoring and troubleshooting tools, Figure 2.

aLTE eNB is an optimal solution for all R&D engineers and educators working on development or knowledge creation of LTE/4G/5G wireless access systems.

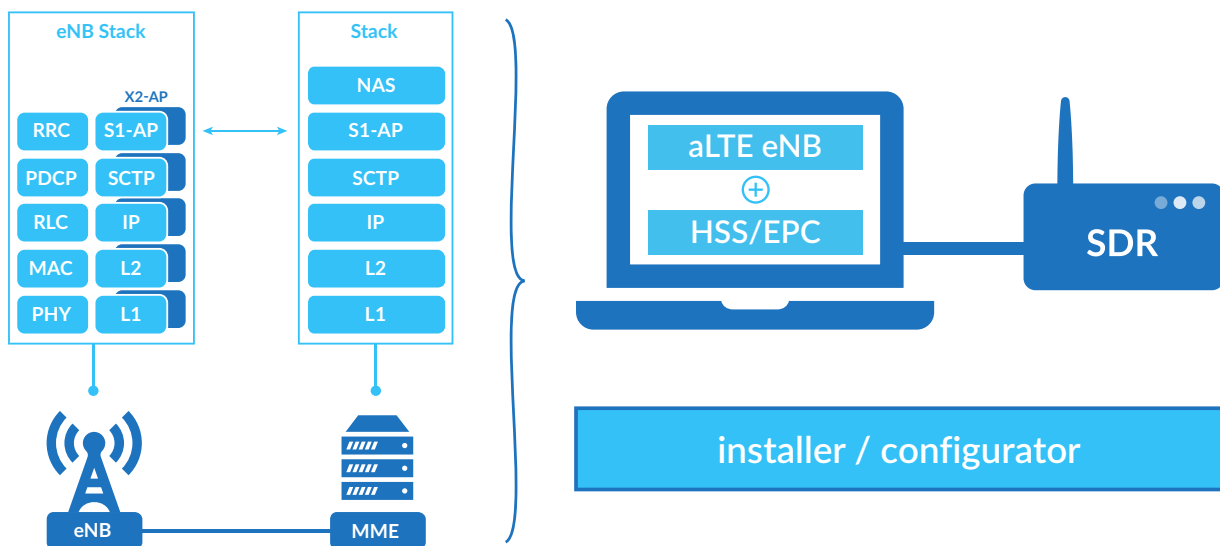


Figure 1. aLTE eNB.

## Applications

Application	Benefit	Who can benefit?
R&D	aLTE eNB serves as an embedded real-time operating platform suitable for research on eNB-related functionalities	Research Institute, ODM, OEM, Operator
Education	aLTE eNB provides great platform for teaching and experimentation on 4G and 5G	Universities, training companies
Demonstration	aLTE eNB can be used to demonstrate operation of LTE infrastructure in a mini laboratory environment	Research Institute, ODM, OEM, Operator
Base station development	aLTE eNB shortens significantly development time of a small cell base station	ODM, OEM, Research Institute

## Key features and benefits

Key Features	Advantages	Benefits
Open source protocol stack	Access to all eNB functionalities	Freedom to modify, adapt and deploy
Configurator	Easy installation and configuration	Saves a lot of time, all-in-one solution
Professional O&M	Instant access to supporting professionals	You can concentrate on your added value and not on system operation

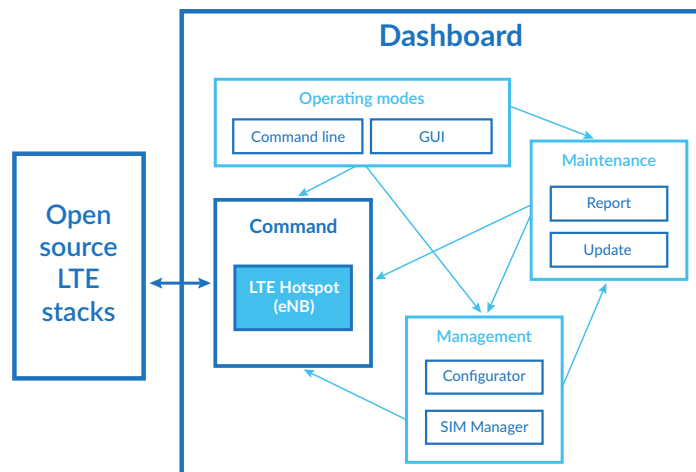


Figure 2. aLTee eNB Manager scheme

## Technical specification summary

Hardware requirements:

- Intel Core i5 or equivalent CPU
- at least 4GiB RAM
- at least 2GiB free disk space
- USB 3.0 port
- Ettus USRP B2x0 or other compatible RF frontend
- Internet connection

Software requirements:

- Ubuntu 14.04 64-bit Operating System
- User account with sudo (or super user) privileges

LTE eNB features:

- General:
  - based on open source LTE stack
  - basic Rel. 8 compatibility
  - sensible defaults for novice users
  - advanced eNB customization options for power users
  - supports Category 1 UEs
  - uses Software Defined Radio as RF frontend
- Core Network features:

- based on open source LTE stack
- basic EPC + HSS functionality

- runs on the same PC as LTE eNB - all-in-one package

aLTernative Manager features:

- automated installation of LTE stack and all its dependencies:
  - obtaining the source code
  - environment setup
  - LTE stack build
- powerful management tools:
  - configurable user profiles
  - easy to use text-based UI for Linux novices
  - full control through command line for Linux power users
  - LTE stack setup from one central place
- LTE stack control frontend

Subscription features:

- Technical support of aLTernative manager:
  - setup
  - eNB/UE operatios
- Negotiable support for LTE stacks
- Negotiable hourly-limit for support

## About IS-Wireless

IS-Wireless is a Polish software developer and IP provider specializing in advanced solutions for wireless systems. IS-Wireless develops 4G and 5G algorithms, protocols and tools.

Our clients are primarily early technology adopters including ODMs, OEMs, chip vendors, and operators. We operate globally delivering our services to companies and organizations from Europe, USA, Africa and Asia. The company is engaged in EU FP7 projects on 5G and is active in delivering technical courses on advanced telecom.

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