



LTE UE Test Framework

Accelerating your LTE device launch

Today's Scenario

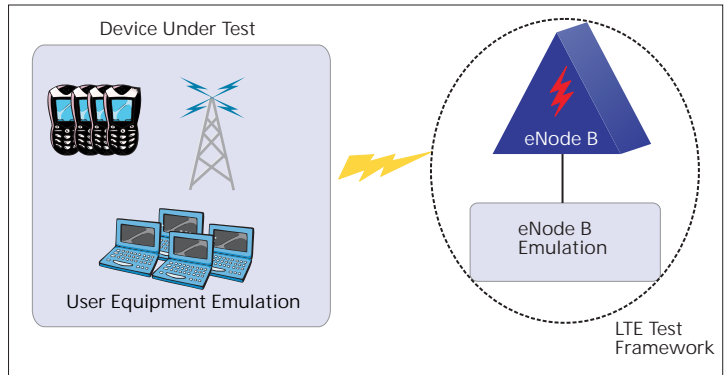
3GPP's Long Term Evolution (LTE) has gained widespread acceptance as the next generation cellular radio technology in the wireless ecosystem. As per the latest analyst reports, more than 60 commercial network launches are expected by 2012 and the global LTE handset market will reach 150 million sales units by 2013.

Currently, LTE brings multiple challenges due to its architecture and protocol enhancements to meet its core objective of aggressive performance requirements and compatibility with other wireless technologies. The equipment manufacturers not only have to consider the feature-rich, compatible products but also have to ensure that their development meets the updated standards. To improve the product development cycle, new techniques should evolve to test these products as per the latest specifications, hence reducing total-cost-of-ownership and time-to-market.

Overview

L&T Infotech has been extensively working on wireless technologies from past 8+ years. Continuing its proactive stance in building capabilities on upcoming technologies, L&T Infotech has developed niche expertise on LTE technology.

To address some of the key challenges being faced by device manufacturer and solution provider, L&T Infotech has developed a LTE Test framework to validate the User Equipment (UE) Stack. It simulates E-UTRAN macrocells (eNodeBs) to accelerate conformance and functional testing. The tool is compliant to the latest 3GPP conformance specifications and comprises of enhanced ETSI test-scenarios.



Features

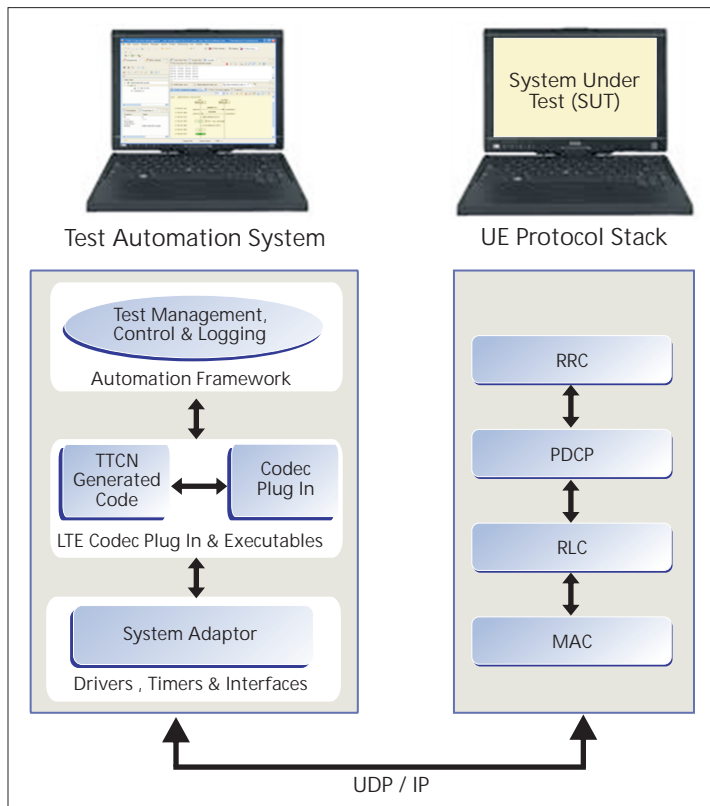
- Ready-to-use Test suite for Conformance and functional testing
- Compliant to 3GPP Release 8
- TTCN-3 framework support
- C.S 36.523/1/2/3, 36.508/509 Conformance Test cases
- Enhanced Codec support for different message types
- Support for standard formats (ASN.1) & Standard plug-ins
- Enhancement in ETSI Test cases improving the coverage
- Automated Test Scenarios

Benefits

- Faster time-to-market
- Reduction in total cost of ownership
- Capability to execute 3rd party test cases
- Seamless integration of codecs with ETSI test cases
- Extensive Support for Regression Testing

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System Architecture



The Test management & logging module is responsible for the overall management control and reporting. The codec plug-ins, have standardized interface which makes them portable between different TTCN-3 systems and tools. The TTCN executable interacts with System & Platform Adaptors, and interprets/executes TTCN-3 test suite. System adaptors exchange data between stack under test and Test framework using UDP/IP protocols.

About L&T Infotech

Larsen & Toubro Infotech Ltd (L&T Infotech), one of the fastest growing IT services companies, is ranked 11th by NASSCOM among software & services exporters from India and also ranked among the 'Leaders' category in the prestigious Global 100 list released by the International Association of Outsourcing Professionals (IAOP). L&T Infotech is a wholly-owned subsidiary of US\$8.5 billion Larsen & Toubro Limited (L&T), India's Best Managed Company-2008 as per the survey conducted by Business Today-Ernst & Young. L&T is featured in the Forbes Asia Annual Fabulous 50 list.

Our unique Business-to-IT Connect is a result of our rich corporate heritage and helps us provide the winning edge to our clients. As a full-services IT Firm with a blue-chip client roster, we offer comprehensive, end-to-end software solutions and services in the following industry verticals:

- Banking & Financial Services
- Energy & Petrochemicals
- Product Engineering Services (Telecom)
- Insurance
- Manufacturing

CASE STUDY

The Client

LTE Solution provider

Case Summary

The Challenge

Client was looking for a partner who could test their LTE UE stack as per ETSI conformance standards.

The Solution

We provided ETSI-compliant enhanced test suite with improved RRC/DRB Codec and PHYSAP support. The test suite was developed using TTCN-3 framework for conformance and functional testing of LTE UE Stack. These test scenarios were later automated further reducing the test cycle time & helping exhaustive regression test scenarios.

Key Benefits

Reduction in the testing lifecycle, reducing time-to-market of the product.