



*Pre-integrated
and pre-optimized
solution accelerates
time-to-market for
eNodeB OEMs*

Co-Creating an LTE eNodeB Reference Solution for a Large Tier-1 Chipset OEM

Customer Profile

The customer is a Tier-1 manufacturer and a world leader of innovative silicon solutions that enable intelligent processing in a large variety of products and technologies - from consumer electronics to enterprise access & service provider equipment in the communications domain. The customer is known for its game changing products as well its technology leadership in the field of silicon processor solutions.

The company is headquartered in North America with development and sales offices across the globe.

Customer Challenges

- Become a first mover in LTE and 4G chipset solutions for base stations
- Develop a cost-effective and high performance LTE eNodeB reference solution
- Achieve and demonstrate standards compliance and equipment vendor mandated performance, with respect to throughput and latency
- Ensure compliance with evolving and complex LTE specifications

Solution

- Design, Development & Quality Assurance of the LTE Layer 2 and Layer 3 protocols
- Port, Optimize and Test the LTE protocols on the target platform from customer
- Co-create a differentiated solution through design and multiple reference points to measure and benchmark performance
- Scale resources dynamically to meet customer mandated go-to-market schedule

Results

- Customer was able to develop the solution exceeding the performance requirements, while effectively reducing risk and achieving cost and time to market advantages
- Customer leveraged Aricent's eNodeB products to differentiate itself and present a superior solution its customers – the OEM vendors
- The joint solution simplifies development complexity for LTE eNodeB OEMs

The joint solution simplifies development complexity and risk for base station OEMs, allowing them to focus on their core competencies and improve their competitive position in the market

Why Aricent?

The customer was on a very aggressive timeline and reducing time-to-market was high priority. Aricent, with its demonstrated capacity to execute high-quality product integration and testing on aggressive timelines was a natural fit. Additionally, Aricent's deep domain expertise and vast experience in executing multiple 3G and LTE projects, including eNodeB, BTS, RNC NodeB and BSC systems were of key strategic value to the customer. Finally, Aricent's suitability for this engagement was further cemented due to Aricent's unique and comprehensive pre-packaged LTE eNodeB Software Suite, combined with the ability to dynamically scale resources that enabled cost-effective and accelerated testing.

Customer Challenges

The customer was faced with getting a complex new network element to market, meeting stringent budget constraints, and ensuring compliance with the evolving LTE specifications in order to deliver a standards-compliant eNodeB reference solution. In order to gain the first mover advantage, the customer wanted the product to become available in a very aggressive timeframe. The customer also wanted the solution to demonstrate standards and equipment vendor mandated performance targets with respect to throughput and latency, while at the same time providing processor headroom for application development and integration.

Additionally, the customer did not have internal resources and expertise to design, develop and optimize LTE eNodeB solution on their platform, requiring them to look for a strategic partner.

Aricent Solution

Aricent worked closely with the customer to co-create an eNodeB reference solution by leveraging its deep technical expertise in LTE and other wireless technologies, and extensive experience in co-developing solutions including eNodeB, BTS, BSC, Node B, and RNC systems. Aricent quickly ramped up a dedicated team of engineers and delivered outstanding results within a very short timeframe. The following key components were delivered as part of the overall solution -

- Aricent designed, developed and tested all of the LTE Layer 2 and Layer 3 protocols
- Aricent ported and integrated the LTE sub-layers on the customer's target platform and executed testing, optimization and benchmarking of the integrated solution to comply with 3GPP Release 8+ specifications, and customer mandated performance specifications
- Aricent also provided a variety of test tools to simulate various components of eNodeB, thereby reducing the customers overall test cycle
- Aricent helped realize a working demonstration of the eNodeB solution on the customer reference hardware

Aricent's protocol stacks are compliant with the latest 3GPP Rel-8 Specifications and are continually upgraded in line with evolving standards. Additionally they are OS agnostic and support a multi-core and multi-thread architecture enabling easy integration with the customer's multi-processor platform.

Results

The customer was able develop an LTE eNodeB reference solution exceeding the customer's mandated performance requirements, while achieving time, risk and cost to market advantages. Aricent quickly ramped up the core team in less than a week to deliver an eNodeB solution quickly under stringent budget conditions and with strict compliance with evolving LTE specifications.

Aricent's robust and pre-tested product portfolio combined with proven interoperability on several industry leading platforms helped the customer to significantly reduce integration and testing expenses. The joint solution helped the customer simplify development complexity and offer eNodeB OEMs a high-performance solution, while achieving time-to-market, risk and cost advantages.

CORPORATE OFFICE

700 Hansen Way
Palo Alto, CA 94304-1388 USA
Phone +1 650 391 1088
www.aricent.com



© 2009 Aricent Inc. All rights reserved. All Aricent brand and product names are service marks, trademarks or registered marks of Aricent Inc. in the United States and other countries. All other marks are the property of their respective owners.