

# Spirent Automation Solution

## Streamline and Accelerate Testing for Major LTE Service Provider

### Customer challenge

In anticipation of a major 4G LTE nationwide launch, a leading service provider in India faced significant inefficiencies validating, on a daily basis, the health of a variety of network equipment devices in their interoperability lab. In addition, each LTE node required regular validation, multiple times per week. Both test systems and test engineers productivity were hampered by manual and time-consuming procedures and systems. The service provider needed to simplify, streamline and accelerate the testing and reporting process and to ensure the regularly scheduled validation testing requirement operated without time consuming disruptions or unreliable delays.

### Challenges overview:

- Numerous vendor devices, as well as multiple testers and test cases, lacking simplicity of single test script
- Time consuming validations jeopardized testing schedules and impacted the overall productivity
- Expanding future requirements forecast that test systems and test team face the prospect of insupportable productivity
- Daily lab verification required test team and vendor coordination entailing 2 man hours each day (10 engineers, 12 min. per day)
- Need to maximize available test resources to be reusable and maintainable and to scale easily with future requirements
- Need to automate testing to avoid time-intensive cycles on daily lab verification cycle

### Solution delivery criteria

Spirent Professional Services test automation experts worked closely with the service provider to design, develop, and deliver a customized test automation solution to meet the following requirements:

- **Products** – A scalable & stable automation framework facilitating expanded test coverage as needed; Robust, easy-to-use tool with the appropriate interface & built-in support for validating: LTE Radio & Antenna Nodes, EPC Nodes, IMS Nodes, SDM Nodes, ECPC Nodes, IP MPLS Nodes; support for validating the service configuration of each LTE node with Office Dependent Data (ODD) documents; Built-in functionality for test result archiving & logging all data to the test reports database
- **Process** – Implementation of test automation best practices; The capability to optimize and automate testing of 10 engineers; Ability to quickly isolate & correct issues with quick response times
- **People** – Qualified expertise to deploy the solution & provide engaged consulting for informed use & adoption advocacy for solution success; Post-sales solution training; Support of agnostic off-the-shelf traffic generation tools, including Spirent

### Customer pains

- Constrained & outdated testing resources, heavily manual, time-consuming testing cycles
- Lack of reusable, scalable and maintainable testing solution
- Absence of coordination between ten engineers, all performing numerous test cases on different devices

### Solution requirements

- **Product** – Comprehensive test case & test suite automation and easy-to-use generation, scheduling, centralized report monitoring & storage
- **Process** – Implementation of proven best practices & evolving test methodologies
- **People** – Professional Services consultation, delivery expertise & training through engagement

# Spirent Automation Solution

Streamline and Accelerate Testing for Major LTE Service Provider



## Solution delivery components

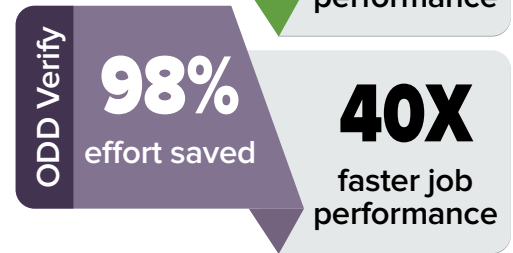
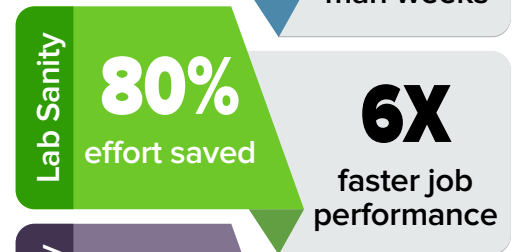
- Proof of Concept (PoC) trials and demonstrations to various customer teams
- Professional Services consultation, adoption advocacy and delivery expertise throughout the engagement
- Spirent iTest development system: Software for creating new test cases, scheduling test suites and communication with devices
- Create and save test cases to be run in reusable batches or individually, with ability to monitor test case progress
- Development of automated test cases into a single script test campaign suite
- Integration of RQM, SVN and other systems for optimal results reporting and replication of tests
- Training and transfer of solution information and test automation best practices

## Solution outcome & benefits

- **Faster lab validation test cycles**  
Originally requiring 2 man hours, time was reduced to 20 minutes of daily testing, with a single script, resulting in a 6X improvement in overall test cycle time
- **Accelerated service configuration validation test cycles**  
ODD validation time for each LTE node reduced from 1-2 days to 30-45 minutes
- **Improved productivity**  
Resources are now freed up from daily testing requirement
- **Increased visibility**  
Provides easy-to-run daily health report
- **Optimized testing & expanded testing complexity**  
Achieved with the robust and easy-to-use automation tool enabling automated testing and engineers can now write sustainable automated and reusable validation tests
- **Accelerated comprehensive test reporting**  
Allows simple-to-perform troubleshooting and rapid issue resolution
- **Assurance of a future-proof automation framework**  
Facilitates stable and scalable expanded test coverage, as well as, support of agnostic off-the-shelf traffic generation tools
- **Automation extension plan implementation**  
As the success of the implementation of this automation solution's first phase was acknowledged throughout the organization, customer initiated the next phase of automation expansion to assure wider benefits company-wide

With Spirent Automation Solutions realize more...

- **Profitability** – Accelerate defect detection, earlier and increase revenue by getting products to market faster
- **Customer satisfaction** – Reduce released defects with expanded test coverage & speed time to market
- **Productivity** – Automate repetitive tasks & reuse of test cases maximizing time and freeing test team for innovation
- **Visibility** – Increase insight into testing progress & identify resource bottlenecks



“The project was a great success. All the expected outcomes and goals were achieved within the projected time. The best outcome of this project is that testing is now possible through a single click.”  
— Service Provider,  
Test Lab General Manager

AMERICAS 1-800-SPIRENT  
+1-800-774-7368 | sales@spirent.com

US Government & Defense  
info@spirentfederal.com | spirentfederal.com

EUROPE AND THE MIDDLE EAST  
+44 (0) 1293 767979 | emeainfo@spirent.com

ASIA AND THE PACIFIC  
+86-10-8518-2539 | salesasia@spirent.com

## Contact us

For more information, call your Spirent sales representative or visit us on the Web at [http://www.spirent.com/about-Us/contact\\_us](http://www.spirent.com/about-Us/contact_us).

spirent.com

© 2017 Spirent Communications, Inc. All of the company names and/or brand names and/or product names and/or logos referred to in this document, in particular the name “Spirent” and its logo device, are either registered trademarks or trademarks pending registration in accordance with relevant national laws. All rights reserved. Specifications subject to change without notice. Rev. C | 01/17