

CASE STUDY

Spirent Lab Automation Solution

Enabling Wireless Service Provider
Multi-Vendor Test Lab (USA)



Customer Profile

A major wireless service provider's test lab needed to accommodate a multi-vendor environment, with separate user rooms and simultaneous users, with assurance of privacy and centralized scheduling.

A transformation and optimization initiative was required to maximize capital investment and human resource effectiveness. At least seven vendor teams, as well as customer's 50+ manual testers, both remote and local to the lab, required access to unique subsets of the 600+ lab elements to perform their required tests.

As part of the planning for the new lab architecture, numerous existing inefficiencies needed to be addressed as well. Lab resource scheduling was manual, performed by single dedicated resource. Reservations were not locked and the schedule was not visible outside the host team.

In addition, coordinated communication internally and externally, along with cross-team scheduling, and robust user reporting capabilities were identified as a crucial requirements. Configuration management of all elements in the lab was also needed.

Challenges Overview:

- Tracking usage and scheduling of all resources remained manual and inefficient; Capital investment of more than 600 test devices and over 50 remote and local testers were underutilized
- Multi-vendor teams with competing interests dictated the need for unique and privacy of devices and testing process, along with transparent scheduling, centralized permissions and privacy, with effective resource optimization
- Communications inefficiencies with knowledge sharing and work transfer between internal and external test teams impacted productivity requiring reliable orchestration of testers and resource utilization



Spirent optimized our test lab. They helped us accommodate numerous testers, both remote and local, and they assured the partitioning of secure permissions and scheduling of different vendors and their devices in our lab.

Wireless Service Provider, Test Lab Director



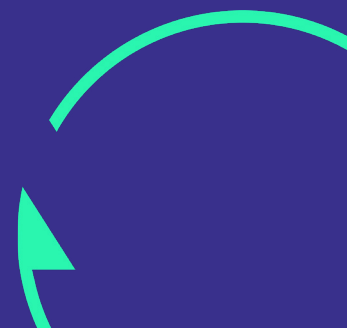
Customer Pains

- Need to maximize 600+ lab elements to be accessed by multiple vendor test teams from several 'test rooms'
- 50+ remote and local manual testers require transparent scheduling and reliable resource optimization
- Multi-vendor environment with requirement for centralized permissions and privacy



Solution Requirements

- **Product**—Comprehensive configuration automation and easy-to-use generation, scheduling, centralized data monitoring & storage
- **Process**—Implement proven best practices & evolving lab optimization methodologies; Foster asset sharing and collaboration across departments
- **People**—Lab automation expert consultation, delivery proficiency & training through engagement



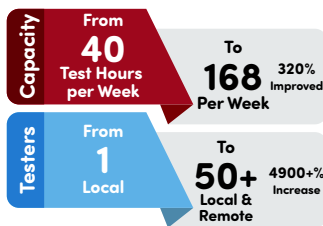
Solution Delivery Criteria

Spirent test automation and engineering experts worked closely with the service provider to build an organizational structure including user groups (e.g., vendor users) and device groups. The objectives targeted easy and efficient control over access to devices and simplified scheduling management. Multiple on-site “test rooms” were planned, each with custom configuration capabilities from a master scheduler. This feature ensured each vendor only had access to their own gear in the network and significantly improved resource utilization. In addition, Spirent designed, developed and delivered a browser-based, highly scalable test lab solution which addressed the following lab optimization requirements:

- **Products**—Lab management & orchestration of all testing resources; A scalable & stable vendor-agnostic automation framework facilitating expanded lab management as needed; Robust, easy-to-use tool with the appropriate interface & built-in support for validating a wide range of DUTs and testing devices; Built-in functionality for utilization report archiving & logging all data to the reports database
- **Process**—Implementation of lab automation best practices; Capability to facilitate test team members of all skill levels; Optimize user permissions control & device scheduling; Multi-calendaring; Reservation locking; Configuration management capabilities; Effective & transparent reporting; Facilitate peerless collaboration of all assets between local & remote test teams
- **People**—Qualified expertise to deploy the solution & provide engaged consulting for informed use & adoption advocacy for solution success; Post-sales solution training

With Spirent Automation Solutions realize more...

- **Profitability**—Accelerate defect detection, earlier and increase revenue by getting products to market faster
- **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
- **Customer Satisfaction**—Reduce released defects with expanded test coverage & speed time-to-market

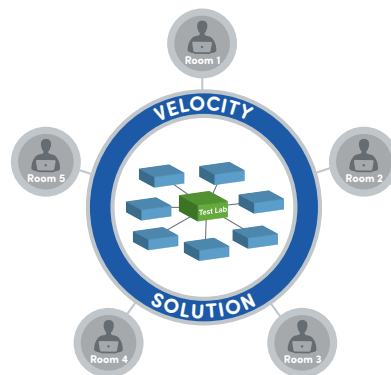


Solution Delivery Components

- Proof of Concept (PoC) trials and demonstrations
- Consultation, adoption advocacy and delivery expertise throughout the engagement
- **Spirent Velocity** — Orchestration software for lab management including: user permissions control and device scheduling; Multi-calendaring; Reservation locking; Enhanced conflict resolution with scheduling authority and administrative ‘approver workflow’
- Configuration management capabilities; Topology editing enhancements; VM’s deployed as sandbox to test upgrades and new features
- Utilization by user reporting
- Daily configuration health check; A ‘gold code standard’ health check script to assure compliance that every element in the lab is configured properly at all times
- Training and transfer of solution information and lab automation best practices with key users identified to train as champions driving adoption

Solution Outcome & Benefits

- **Expanded configuration capacity**, from 8 hours per 5-day week to 24/7, and provided flexibility to access and automate any device in the network
- **Lab transformation and optimization** achieved
- **Maximized capital investment** with measurable gains delivered with enhanced device and human resource efficiencies
- **Budgeting management improvements** via reports on equipment usage (CapEx) and resource utilization (OpEx)
- **Expanded testing capability** as five test rooms set up and supporting over fifty manual testers across multiple locations—from 1 to 50+ testers
- **Security and privacy assured** as workflow implemented ensured correct permissions and restricted visibility within each test room
- **Increased testing efficiency** with expanded test coverage capabilities



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

Europe and the Middle East
+44 (0) 1293 767979 | emea@spirent.com

Asia and the Pacific
+86-10-8518-2539 | salesasia@spirent.com