Ospirent™
Promise. Assured.

Spirent **Automation Solution**

Improves Time-to-Market for a Major Network Equipment Manufacturer

Customer Challenge

As a leading provider of high-performance, low-latency and low-cost Ethernet switches, as well as Virtual Machine-aware network virtualization solutions, this Fortune 1000 company had over 8 million switch ports deployed at major corporations and government agencies worldwide. The company was focused on developing new product features to meet the growing demand for virtualization-ready networks. In addition, the company's portfolio of products expanded significantly from its founding. Its internally developed test automation system was incapable of addressing the growing and expanding testing requirements. The resulting increased volume and complexity of testing requirements caused the organization's testing cycle to grow, until it was seven times longer than it was at its formation.

Challenges Overview:

- Increasing product development requirements impacting time-to-market goals
- Expanding QA growth rate: seven times faster than development
- Growing testing inefficiencies jeopardizing testing schedules, affecting overall productivity
- Escalating resource costs required new testers and offshore outsourcing, with reliance on Tcl scripting expertise
- Needing ability to generate documentation to repeat tests accurately
- Lacking comprehensive and reliable testing automation to avoid expanding resources and reduce time required for test coverage

Solution Delivery Criteria

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

- **Products**—A scalable, stable off-the-shelf automation framework facilitating expanded test coverage as needed; Robust, easy-to-use tool supporting automation of 3,700+ test cases spanning 13 product lines; Built-in functionality for document generation, test result archiving and logging all data to the test reports database
- **Process**—Implement test automation best practices; Empower test engineers of all skill levels to easily and effectively automate test plans; Establish collaboration across all product lines and test teams with quality workflow to enable leveraging each other's assets by sharing tests, reports, and documentation
- **People**—Qualified expertise to deploy the solution and to provide engaged consulting for informed use and advocacy for successful solution adoption; Post-sales solution training; Support of agnostic off-the-shelf traffic generation tools

Customer Pains

- Ad hoc automation strategy unable to meet rising demands of expanding test cycles
- Rising cost of test resources deliver unsatisfactory testing efficiencies
- Productivity declines lead to inability to meet time to market goals

Solution Requirements

- **Product**
  Comprehensive test case & test suite automation and easy-to-use generation, scheduling, centralized report monitoring & storage
- **Process**
  Implement proven best practices & evolving test methodologies; Foster asset sharing and collaboration
- **People**
  Professional Services consultation, delivery expertise & training through engagement

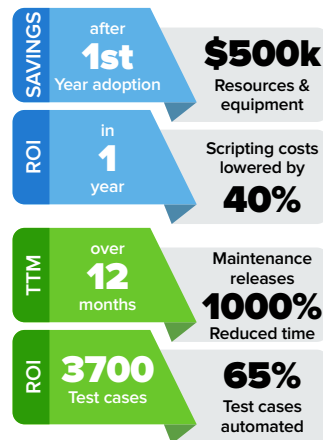## Solution Delivery Components

- 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 systems for optimal results reporting and replication of tests
- Training and transfer of solution information and test automation best practices

Solution Outcome & Benefits

- **Improved productivity**
  Over $500,000 in resources and equipment saved
- **Increased revenue opportunities**
  The right products are now able to be delivered to market on time
- **Achieved time-to-market and quality goals**
  Utilized existing resources without increasing headcount
- **Reduced scripting costs**
  Over 40 percent reduction within one year
- **Reduced time for regression testing, including maintenance releases**
  Over one year period reduced time between releases by 1,000 percent
- **Automation introduced earlier in quality workflow**
  Enabled test engineers, regardless of skill level, to complete more tasks in parallel with existing resources
- **Improved communication**
  Clear improvement achieved across all test teams during all stages of testing
- **Accelerated comprehensive test reporting**
  Provided simple-to-perform troubleshooting and rapid issue resolution
- **Ease of test case automation adoption**
  Proven with all test automation goals being met as 65% of test cases were automated in first year
- **Streamlined defect resolution**
  Defect resolution time reduced, allows more time for quality testing and development
- **Optimized testing & expanded testing complexity**
  Enables automated testing and allows engineers to write sustainable automated and reusable validation tests

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

SAVINGS — after **1st** Year adoption — **$500k** Resources & equipment

ROI — in **1** year — Scripting costs lowered by **40%**

TTM — over **12** months — Maintenance releases **1000%** Reduced time

ROI — **3700** Test cases — **65%** Test cases automated

"Getting to market with the right product at the right time provides us with better revenue opportunities. This ability to capture business opportunity is by far and away the biggest benefit Spirent delivered to us."

—NEM,
VP, Software Engineering

Spirent
Promise. Assured.