Spirent **Velocity**

A CLEAR Solution for Virtual/Physical Testbed Orchestration & Test Case Management

The virtual/physical testing challenge:

As organizations migrate from physical to virtual, network performance becomes less predictable. Testers must emulate the environment that reflects the production network. Only through a reusable, scalable and maintainable test bed that orchestrates both Virtual and Physical elements can testing be achieved.

Benefits of Spirent Velocity

- Environment for virtual and physical testing
- Ensures predictable and reliable tests
- Maximize resource utilization and ROI through 24/7 resource scheduling, reservations and tracking
- Help prevent costly downtime by automating error-prone manual cabling
- Schedule test case playlists for later execution
- Create regression suites and monitor the health of the regression system
- Accelerate and expand load balance execution of regression tests
- Facilitate decisions by analyzing results of regression tests

Spirent Velocity is an integrated lab management and test execution solution for elastic test labs. It coordinates, orchestrates, manages and monitors physical and virtual environments as well as facilitate lab consolidation. Designed for testers and developers of every skill level, it provides a simple user experience for defining a testbed topology that can be used to execute a single test case or an entire test plan. Its drag and drop interface allows testers to quickly create and execute complex test scenarios while its multi-user reservation system prevents resource conflicts even with teams spanning multiple continents.

Realize More...

Profitability

- Increase revenue by getting products to market faster
- Reduced cost by increasing utilization of investments
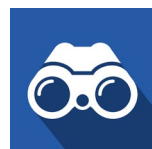- Catch defects earlier in the process saving costly rework

Customer satisfaction

- Reduce number of released defects through increased test coverage
- Test new functionality without compromising quality
- Incorporate customer use cases as part of the regression

Productivity

- Automate repetitive tasks
- Reuse test cases as part of Best Practices
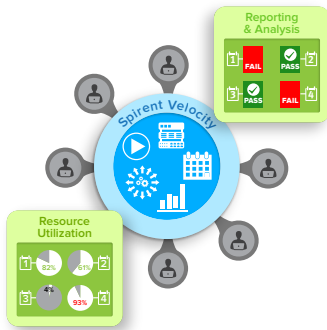- Enable the organization to easily create and execute test cases

Visibility

- Increase insight into test progress
- Identify resources bottlenecks
- Determine collaboration level

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Spirent Velocity – Realize more in testbed orchestration & test case management

Spirent Velocity is a powerful and intelligent lab management and test case execution solution. It provides superior visibility into lab utilization to enable efficient capital expenditure. It also enables collaboration across the organization by maximizing topology and test case reuse. With a central repository of equipment, test cases, and topologies it simplifies the creation and sharing of assets for successful regression testing.
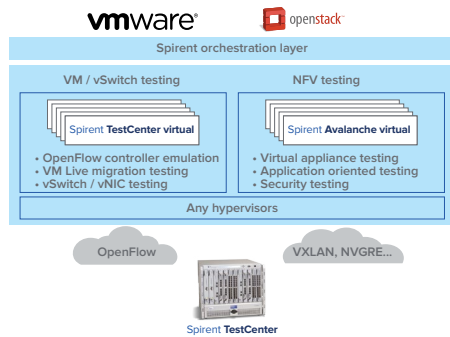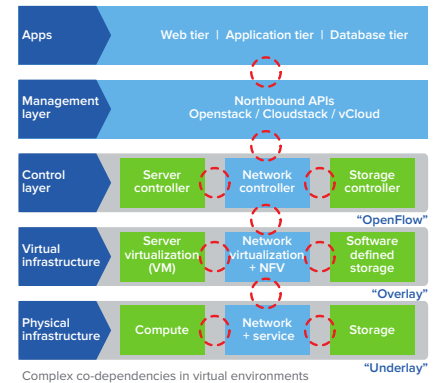

Resource management & configuration

Increase process visibility by identifying potential bottlenecks through reports on resource utilization as well as the people using them*. These resources can be reserved and connected automatically to build out topologies within labs using Layer 1 switches. It notifies technicians regarding the physical connections required and the user once the topologies is activated.

SDN/NFV network testing

Reduce time-to-market of virtualized solutions, minimizing ramp up time by removing the complexity of creating a virtualized environment. Virtual machines can be spun up on-the-fly allowing developers and testers of any skill level to execute test cases.

Complex co-dependencies in virtual environments

End-to-end orchestration

Leverage existing systems and tools to orchestrate a complete end-to-end test. Achieve the goals of reducing CAPEX and OPEX via lab equipment consolidation. Velocity provides centralized management of all lab resources while simultaneously providing 24/7 worldwide access for all users.

Collaboration & reuse

Improve productivity through a central repository allowing test cases to be leveraged throughout the entire organization. Development and QA groups can reuse work to increase team efficiency. Test cases can be combined into playlists simplifying regression testing a feature or function.

50+ Seven vendor teams and over 50 manual testers, both local and remote, provided assured secure access and privacy**
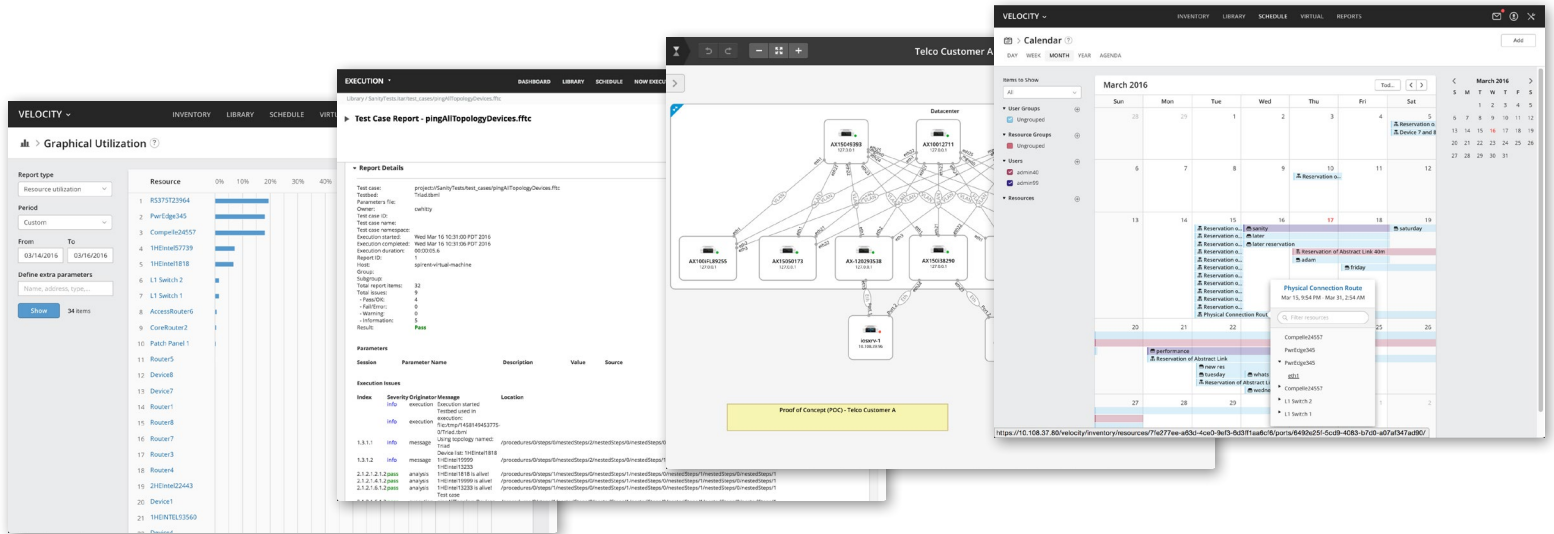
*Personal reporting can be disabled in countries where it is not permitted
** Benefits based on the Spirent iTest BLADE Case study, available at: www.spirent.com/Case-Studies/Broadband/iTest_blade_case_study

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The control, reporting, usability, and scalabilty required for Enterprise-class Lab Management

Key features	
Virtual & physical topology generation	Create, edit and manage topologies through a web interface using flowchart based, non-programmer friendly automation design
Centralized repository of equipment & test cases	Eliminate wasted time searching for inventory and test cases through a central inventory repository
Reservation & scheduling with calendar privacy	Execute regression tests using a calendar view displaying available timeslots and potential conflicts
Graphical resource utilization reports	Identify potential bottlenecks and what equipment is being underutilized through resource utilization
Detailed results of test execution	Step-by-step test execution results including response values to quickly drill down into results to understand why a test failed and help you isolate the problem
Automated cable change workflow	Automatic cable change workflow notification to lab technicians which ports that need to be connected for a test
Cable and cable type assignment	Specific cables or cable types can be associated with each connection in the lab, giving Velocity complete visibility of the lab's physical infrastructure
High availability and fault tolerant	Protection from hypervisor and VM failures through VMware HA support, Velocity Health Checks and proactive alerts upon service impairments
Nest topologies	Maximize reuse of common topologies by simply nesting them as a sub-topology
Abstract resources, ports, and links	Select resources, ports, and links based on abstract conditions, for example chassis firmware version, port speed, and total link attenuation/length
Console access	Simplify configuration by using familiar tools (e.g. SSH, Telnet, HTTP, Terminal Server, etc.) to configure devices directly in Real-Time
REST API support	Published REST API to interoperate with external systems providing closed-loop execution support
Permissions based reservations	Admin ability to set reservation Time Quotas to prevent user groups from reserving equipment for long durations that prevent others from executing tests
VLAN tagging support	User defined and auto-VLAN tagging support to access devices that maybe isolated through switches in the lab
Startup/teardown tasks with parameters	Easily create a sequenced list of startup/teardown tasks with parameters for complex setup/teardown
Virtual template sync	Virtual images are managed natively from the User Interface and virtual topologies can be auto-updated when template parameters changed saving time

Spirent expertise

Spirent solutions support staff comprises an accomplished team of certified networking and testing automation professionals. Years of training with hands on experience testing and troubleshooting diverse systems, enrich their capabilities.

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.

Realize more with Spirent CLEAR solutions

Spirent CLEAR solutions are a unique, tailored approach to test automation and lab optimization. CLEAR solutions address the challenges facing teams that inhibit successful adoption of a better process and avoid the pitfalls of many failed test automation projects. Spirent's solution experts listen to and work closely with customers to develop the right solution that fits the environment while promoting the best practices of product development and test. Spirent takes a CLEAR approach to solving the testing challenges facing customers today and for the future.

C Collaboration
L Leadership
E Exploration
A Acceleration
R Realization

Collaboration	A trusted partner that collaborates with customers and domain experts to deliver comprehensive, best in breed solutions to achieve financial and technical goals.
Leadership	Solution professionals provide leadership throughout the process including design, planning, implementation, adoption, training and project management, along with a team of solution architects to deliver a complete test solution.
Exploration	Through exploration of the challenges facing the customer, consideration of the various roles of the stakeholders and the tools needed, a comprehensive solution design is produced.
Acceleration	CLEAR Solutions are designed to accelerate the testing process using best practices. By using the right tools and processes, Spirent ensures acceleration of test development, lab management and test bed configuration, test execution and results analysis to meet the pre-defined goals.
Realization	Results driven solutions help customers realize more of their financial and technical objectives.

Spirent CLEAR solutions assist with...

Project delays—Agile product development – New development processes are adopted, but the testing infrastructure is not improved to keep pace. Testers are becoming part of the development team and working in parallel with the developers to create and test products in short iterative cycles. Tests must often be created before the product is ready.

Process integration—Continuous Integration – New deployment tools are being adopted to accelerate deployment of new releases into production. The largest reported challenge facing continuous integration and DevOps teams is the automation of the testing required to ensure readiness for production.

Cost overruns—Expanding product requirements – Being more responsive to customers' demands is critical to any business' success. In an effort to satisfy customers, product release requirements often expand, but the delivery date is not moved.

Straining quality—Growing product complexity – As new features are added exponentially to products, comprehensive testing exceeds the capacity of the existing team

Spirent automation solution suite

Spirent iTest— An integrated test authoring and execution solution for rapidly developing, automating, and maintaining test cases.

Spirent Velocity— A robust virtual/physical testbed orchestration and test case management solution for facilitating lab management and scheduling, as well as, executing and analysis of test cases.

Spirent Professional Services— Provide qualified test experts with hands-on solution knowledge with a 'deep bench of professionals to deliver solutions

Rev. C | 03/16