Spirent

Promise. Assured.

Spirent **iTest**

Python-Based Network Automation and Verification IDE

Highlights

- Python-based platform for automation developers and network engineers

- Abstract the complexity of hybrid networks to create robust Python and Robot automation and verification applications

- Easily convert manual network configurations and testing workflows into secure distributable automation applications, API libraries and keywords

- Integrated system analysis w/ customizable reports for actionable verification

- Portable Automation Format accelerating deployments from lab to production

Testimonials

Increased automated test cases from <10% to 75%	**7X** increase in testing efficiency
65% of test cases automated	**$500K** annual cost **saving**
Cut test execution time from 60 to 6 minutes	Over **10X** speedup in regression testing
Testing time cut 5 Hours to 5 Minutes	**98%** increase in test coverage

Overview

Spirent iTest was created to simplify the complexities presented by heterogeneous networks by allowing development and operations teams to rapidly create portable automation within an agnostic network automation development framework.

Spirent iTest delivers the first ever unified Interactive Development Environment for Python, Robot and iTest users. This release provides the optimal environment for creating modern network automation and verification applications. Our innovative Portable Automation Format (PAF) simplifies automation and adoption by enabling developers to leverage their automated applications for both lab and production use. Spirent iTest highly productive Record-Playback and patented Response Mapping are available within Python and Robot development environments.
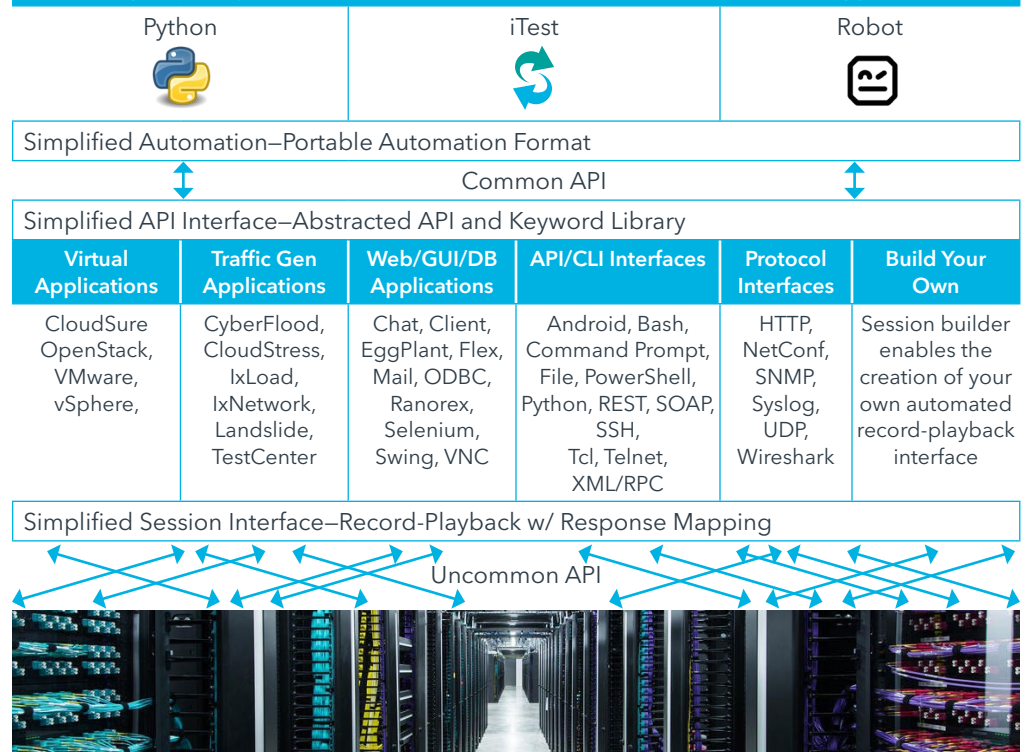
Business Benefits

- Single solution for both lab and production environments: automate, verify and seamlessly deploy from lab to production
- Speed up time to market using reusable automation libraries for Python and Robot
- Improve efficiency with built-in DevOps workflows and sharing of environments

iTest IDE is designed to abstract the complexity of networks from the ground up.

Interactive Development Environment (IDE)
For Development of Python, Robot and iTest Network Automation and Verification Applications

Python	iTest	Robot

Simplified Automation—Portable Automation Format

Common API

Simplified API Interface—Abstracted API and Keyword Library

Virtual Applications	Traffic Gen Applications	Web/GUI/DB Applications	API/CLI Interfaces	Protocol Interfaces	Build Your Own
CloudSure OpenStack, VMware, vSphere,	CyberFlood, CloudStress, IxLoad, IxNetwork, Landslide, TestCenter	Chat, Client, EggPlant, Flex, Mail, ODBC, Ranorex, Selenium, Swing, VNC	Android, Bash, Command Prompt, File, PowerShell, Python, REST, SOAP, SSH, Tcl, Telnet, XML/RPC	HTTP, NetConf, SNMP, Syslog, UDP, Wireshark	Session builder enables the creation of your own automated record-playback interface

Simplified Session Interface—Record-Playback w/ Response Mapping

Uncommon API

Heterogenous Hybrid (Physical and Virtual) Networks

Spirent iTest

Python-Based Network Automation and Verification IDE

Spirent iTest IDE

Python-based Interactive Development Environment (IDE) for automation developers and network engineers.

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Key IDE Features

Python-Based: Rapidly create, reuse and publish Python and Robot Framework automation content from a unified development environment.

Live Interaction: Real-time development and troubleshooting of network and test automation with any device, application, or system.

Record and Playback: Create automation scripts by capturing every action during a manual test and replaying the captured steps.

Portable Automation Format: Develop and export automated tests for use in any environment including lab, staging and production networks.

Response Mapping: This patented feature automatically parses complex device messages to extract the key information.

Leverage existing automation: Enhance the value of your existing Python, Robot, Bash and PowerShell content by importing them via 'File -> Import'

Spirent iTest
Python-Based Network Automation and Verification IDE

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Spirent iTest Portable Automation Format

Network automation and verification applications are easily created and securely distributed for both lab to production use.
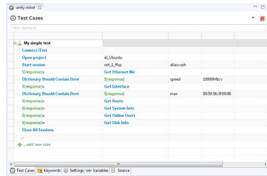
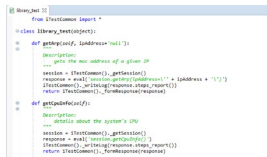### Network Automation and Verification IDE

Full capability of iTest applications, API libraries, keywords and results integrated with Python and Robot IDEs
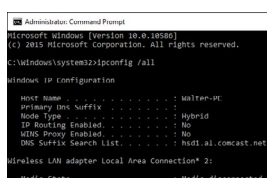
Results Analysis

- Apply complex analysis rules with Boolean logic
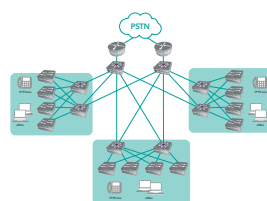- Customizable reports with system integrated

Keyword Libraries

- Build higher level, abstracted automation and test libraries
- Publish as Python, Robot or RESTful APIs

Session Record-Playback

- Abstract devices and applications with common session interface
- Capture and replay user actions
- Troubleshoot issues easily: extensive logs available, including from RESTful sessions

Network Topologies

- Visually model and integrate network or test environments
- Abstract the make, model, and version specifics from the devices being automated
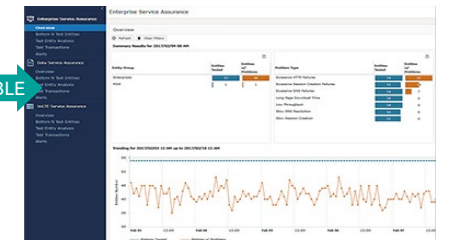
Portable Automation Format
Network Automation and Verification Applications

Integrated Python, Robot and & iTest Editors

w/ Velocity LaaS/TaaS

PORTABLE

- Create and instantiate development and test environments instantly
- Deploy, schedule, run and share automation
- Store and report all automation results

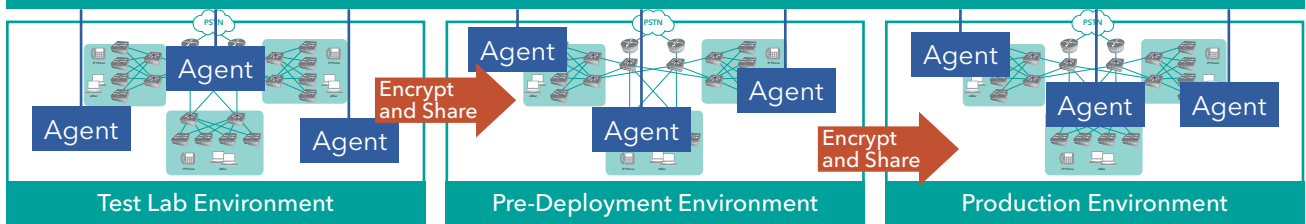### w/ VisionWorks Service Assurance

PORTABLE

- Publish automation from lab into production environments
- Test sequences for validating and monitoring network devices and services

Secure Agent Framework Environment

Distributable Secure Automation: Run only signed apps, encrypt all config inputs-outputs, stream encrypted data

Encrypt and Share → Encrypt and Share →

Test Lab Environment | Pre-Deployment Environment | Production Environment

Collaborative Network DevOps Workflow Environment

AUTOMATION DEVELOPERS

← SHARE AUTOMATION →

git + Velocity

← SHARE ENVIRONMENTS →

NETWORK ENGINEERS

Spirent iTest
Python-Based Network Automation and Verification IDE

Spirent iTest Expert Analysis and Community
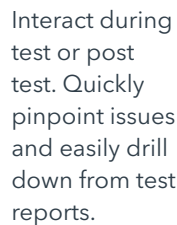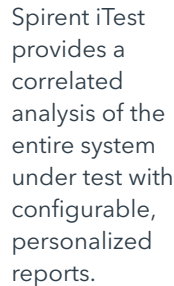Integrated verification tools for expert analysis and community of expert resources to jumpstart your automation.

Expert Verification and Analysis

Spirent iTest provides a correlated analysis of the entire system under test with configurable, personalized reports.

Interact during test or post test. Quickly pinpoint issues and easily drill down from test reports.

Expert Community

http://Developer.Spirent.com

Find a wide variety of useful automation assets for your iTest projects. All Spirent Developer Community assets are available for your immediate download and use!

Either clone the repository from GitHub or click the project's individual download button. Submit your projects and contributions back to the Developer Community from which others can benefit.

Contact Us

For more information, call your Spirent sales representative or visit us on the web at www.spirent.com/ContactSpirent.

www.spirent.com

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

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

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