

# Spirent Automation

## A Solution for Test Automation & Physical/Virtual Lab Systems

Spirent Automation is a solution for test automation, physical lab management, and virtual testbed orchestration. Through proven solution components, including Spirent iTest and Velocity, as well as best practices applied across a wide range of next-generation environments, Spirent Automation is a solution that provides reliable innovation and the assurance of accelerated delivery of quality.

### Test & Lab Challenges:

As release cycles shorten and expanding test coverage become problematic, the time-consuming and error-prone manual tasks for device and system testing no longer scale with the given resources. This impacts team productivity and the organization's ability to meet release deadlines.

To overcome this, test teams need transparent communication and proven best practices implemented to improve collaboration and increase productivity so customer satisfaction increases.

### Successful Automation Requires:

- Easy-to-use automation test case development and test suite execution
- The ability to tightly integrate with all elements of the testing process including Agile and DevOps environments.
- Lab management control of a wide array of different devices, both physical and virtual.
- Improved collaboration and standardized communication between local and global teams.
- Automation is no longer a question of **IF**, but **HOW**. The key is to choose the proven components and qualified expertise to assure success.

### Benefits

Spirent's Automation Solution measurably improves test case and campaign development, accelerates testing execution, maximizes physical and virtual lab utilization. The solution also integrates into Continuous Testing of DevOps environments, resulting in enhanced process visibility, shorter and controlled development and delivery cycles, faster time to market while reducing costs and improved quality.

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### The Foundation of Success

Spirent delivers comprehensive and qualified components for each element of the automation solution equation.

#### Products

- Suite of tightly-integrated easy-to-use products for authoring, managing and executing tests
- Industry's largest set of integrated communication protocols and session types for automation with a full range of devices and vendor-agnostic test tools
- Lab management for both the physical and virtual test labs, as well as hybrid environments

#### Process

- Easy-to-use, portable maintainable test suites that work on multiple devices and shared across teams and geographies
- Highly adaptable products that integrate easily into Agile and DevOps processes
- Modular Agile workflow that is well-documented to promote quick integration of new team members

#### People

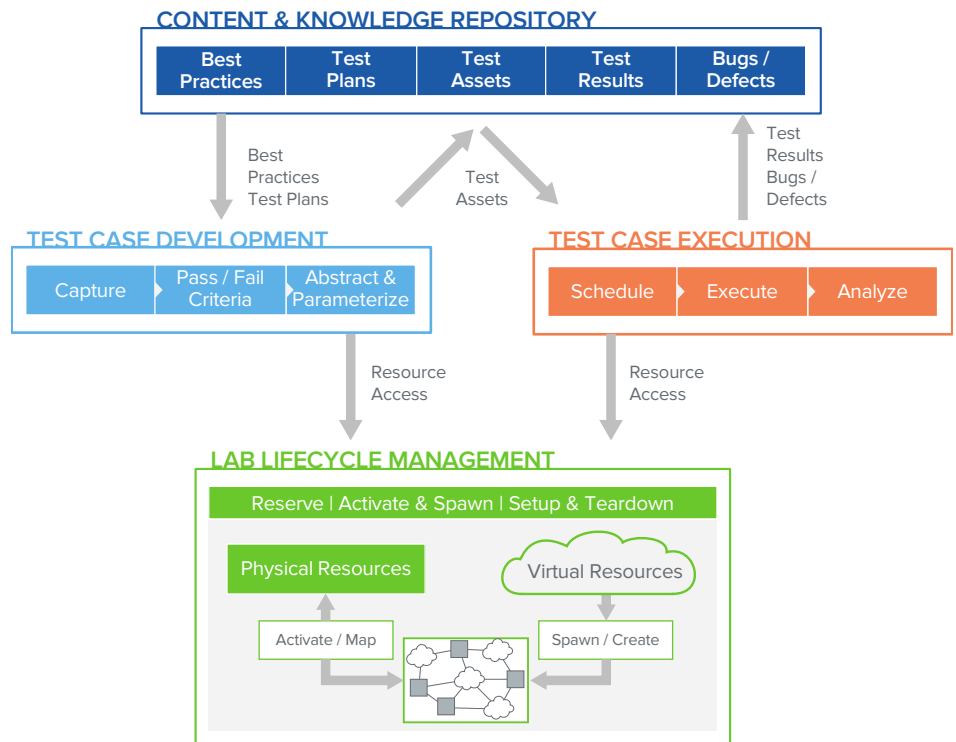
- Professional consultants to provide the leadership and expertise needed to evangelize the new test culture that comes with test automation
- Training and mentoring of the teams to create in-house experts to help drive innovation and acceleration into the solution
- Development services for long-term automation goals

### Spirent Automation Solution

#### Integrating the Essential Elements

Successful automation requires three dedicated elements—**Products, Process and People**. These elements are independently essential yet have interlocked requirements which are in a state of continuous evolution. Only through holistic integration of all three will a scalable and maintainable automation environment be possible.

**Automation is a cultural mindset**, not just a tool. Qualified expertise, optimizing the critical elements in a range of environments, is required for solution success.



The ideal automation environment consists of multiple variables operating in seamless interaction. Understanding these variables, and successfully optimizing their interrelationships within the products, processes and people are required for a successful solution.

“Automation is not a separate workflow of testing. It is a **byproduct of testing** and the application of **proven best practices.**”

## Best Practices Approach for Automation Challenges

When it comes to considering adopting automation, it is no longer a question of IF but HOW. Understanding how challenges are addressed is critical in developing the solution objectives to facilitate maximizing on its benefits.

### Complexity

Streamline test development through IDE

- Leverage advanced languages as programming evolves
- Simplify by not having to script or program by using an integrated development environment (IDE)
- Remove barriers of adoption by using descriptive languages that are easier to understand and use by test engineers

### Maintainability

Reduce development & maintenance time through reuse

- Create tests once and then reuse in other test cases
- Develop building blocks by first building simple tests and using those tests as building blocks to create more complex tests
- Increase maintainability through dynamic inheritance and abstraction

### Portability

Use abstraction during creation, then assign during execution

- Utilize abstract topology, test parameterization
- Reserve topology & execute dynamically
- Enjoy flexible virtual and physical topology assignment, scheduling & activation

### Visibility

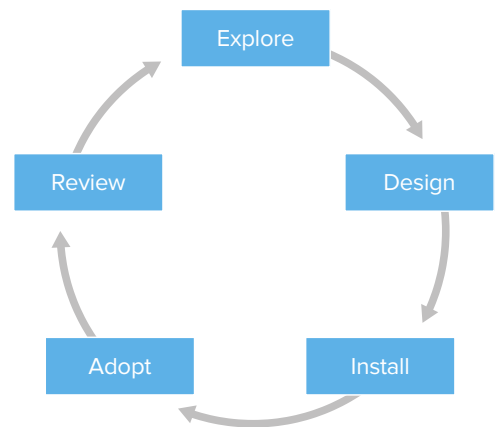
Centralize location for storing assets, reservations & results

- Centralize repository, reservation & scheduling with remote access
- Achieve scalable infrastructure
- Accelerate analysis of asset utilization, test results & results trending reports

## Best Practice Implementation Cycle

When developing a solution in alignment with best practices, and in collaboration with the delivery partner, the process includes the following cycle of steps:

- **Explore**—Review customer environment, existing products, process and people in place, and identifying and validating the customer challenge.
- **Design**—Solution design is developed and validated with the customer using a detailed understanding of the products, process and people.
- **Install**—Build the assets required while working with the customer to integrate and train on the solution for wider utility within the organization.
- **Adopt**—Operational deployment of the solution, advanced training for stakeholders and organizational acceptance of the solution.
- **Review**—Assessment of how the solution aligned with original goals and objectives, and where elements might not meet original objectives. A refinement of the solution is the next phase which leads to a new cycle of diagnosis for long-term success.



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### About Spirent Communications

Spirent Communications (LSE: SPT) is a global leader with deep expertise and decades of experience in testing, assurance, analytics and security, serving developers, service providers, and enterprise networks.

We help bring clarity to increasingly complex technological and business challenges.

Spirent's customers have made a promise to their customers to deliver superior performance. Spirent assures that those promises are fulfilled.

For more information, visit: [www.spirent.com](http://www.spirent.com)

### Realize More with Spirent Automation Platform Technologies

Spirent APT solutions are a suite of solutions designed to address the myriad of challenges confronting companies in the IP Network industry. Every company's situation is different, which is why Spirent's approach to helping each customer is unique, but the process for solving problems is at the core of everything we do.

### Spirent Solutions Assist with...

**Avoiding 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.

**Improving 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.



### Contact Us

For more information, call your Spirent sales representative or visit us on the web at [www.spirent.com/ContactSpirent](http://www.spirent.com/ContactSpirent).

[www.spirent.com](http://www.spirent.com)

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