



STREAMLINE

Your Continuous Testing With
Spirent's Automation Platforms

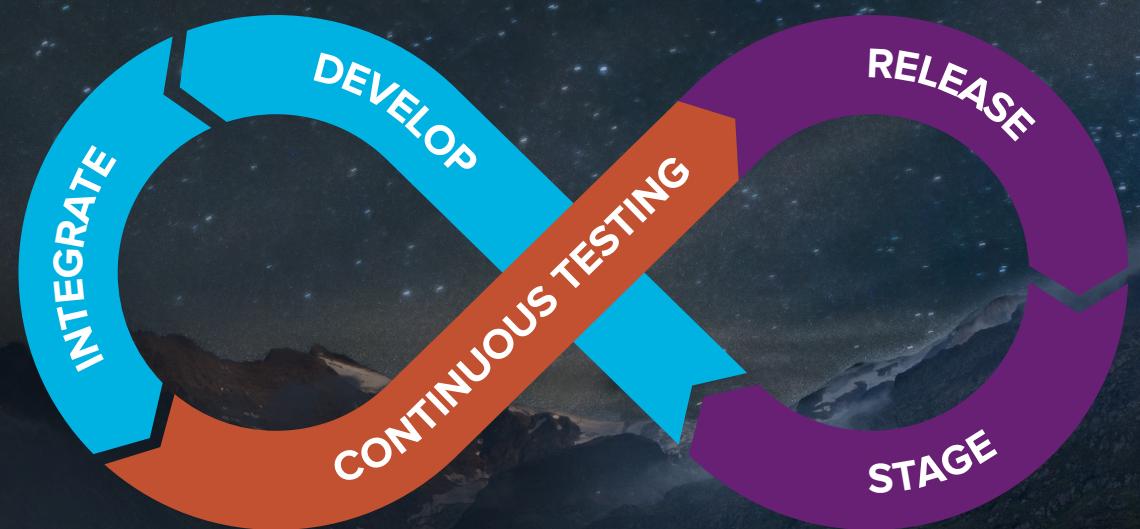


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Launch

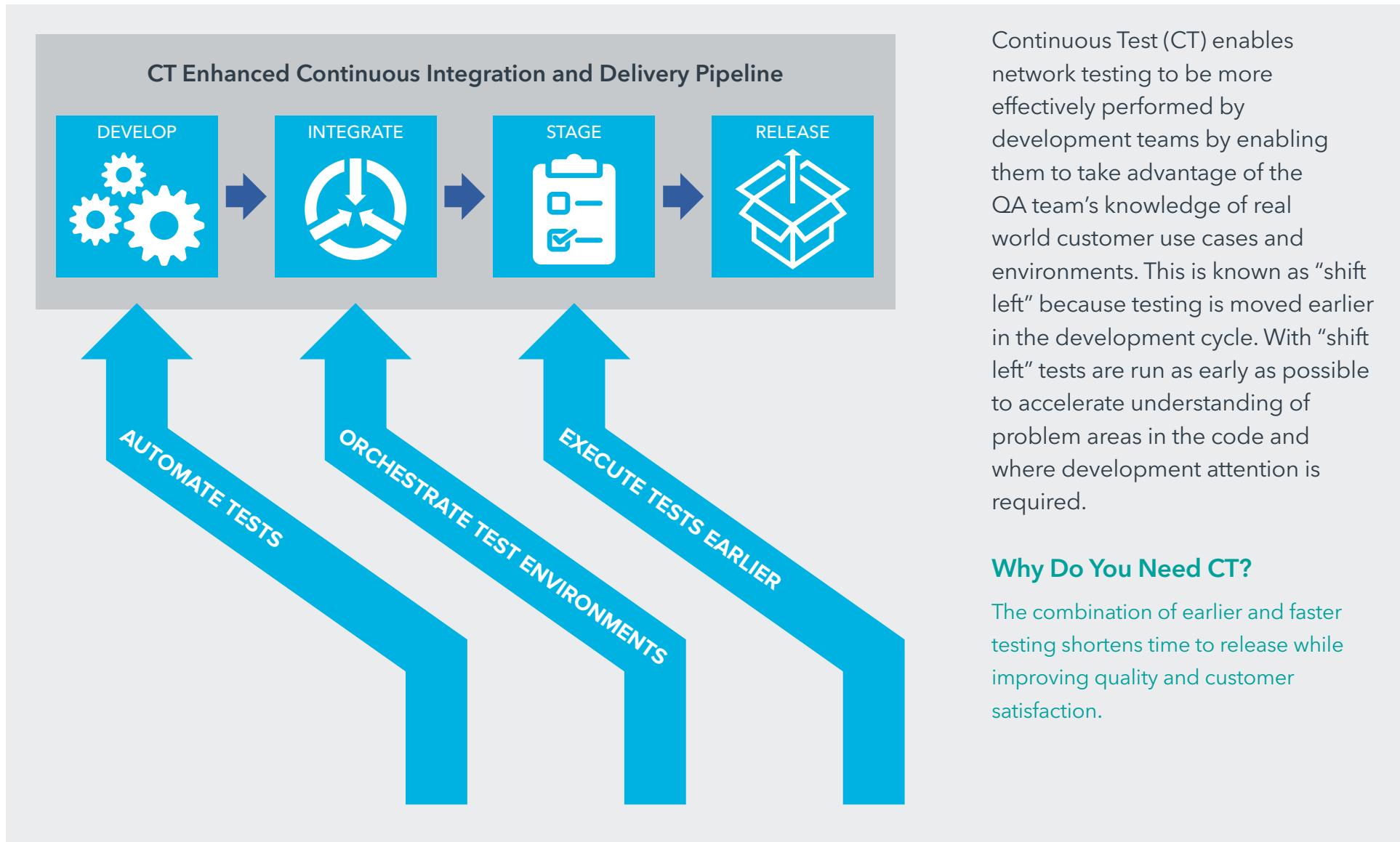
Requirements

Collaboration

Agile software development practices gained momentum in the late 90s. Agile emphasizes close collaboration between business stakeholders, the development team, and QA. This enabled **faster** software delivery, **better** quality and **improved** customer satisfaction. By employing DevOps practices, the pace and benefits are amplified.



What is Continuous Test (CT)?



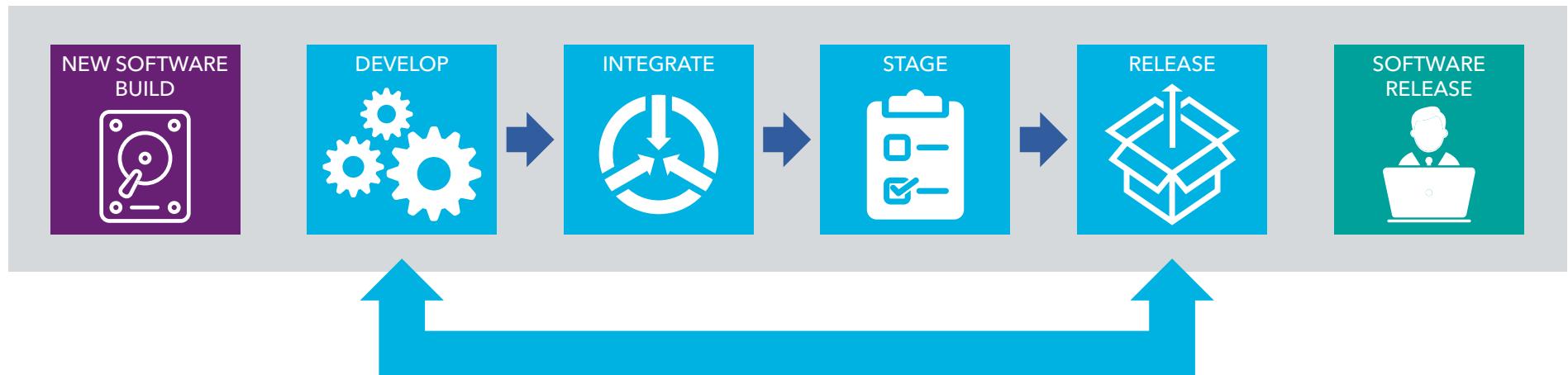
What Hinders CT Implementation?

Deficient or non existent tools for creating automated tests

Insufficient test resources for timely test execution

Lack of test results analysis tools hinder assessment of test results

Inadequate understanding of customer environments and use cases by developers



The promise of DevOps can't be fully realized until Continuous Testing (CT) is factored in. Doing so requires that each stage of the DevOps pipeline be reengineered with CT methodologies. I.e., it is not the addition of a new pipeline stage. As an analogy, if you want a train to go 300MPH, you can't simply add a new engine...it requires designing from the ground up as a bullet train. Success also requires equipping the pipeline with tooling to facilitate continuous testing such as Spirent's Lab as a Service (LaaS) or Test as a Service (TaaS) platforms.

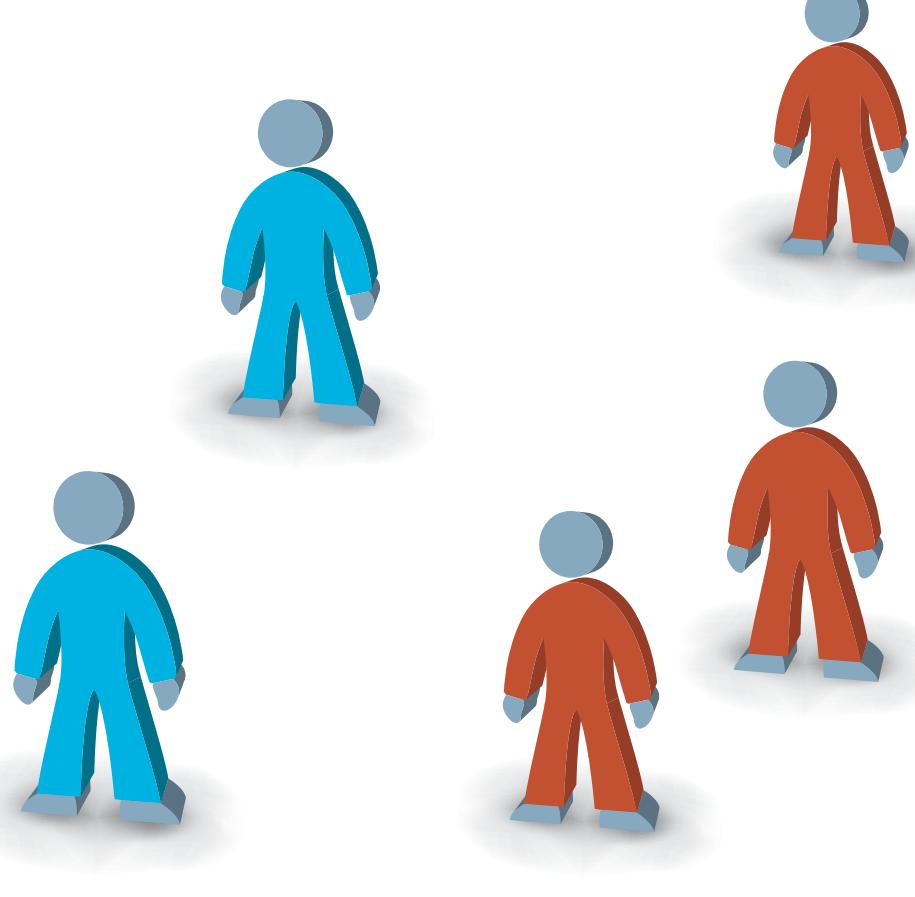
**In the pre-Agile world,
developers handed off
builds for testing to QA.
In the Agile world, much
more frequent testing is
required. This is
the chasm -
how do you do
more testing, more
frequently with the same
set of resources?**



THE CHASM



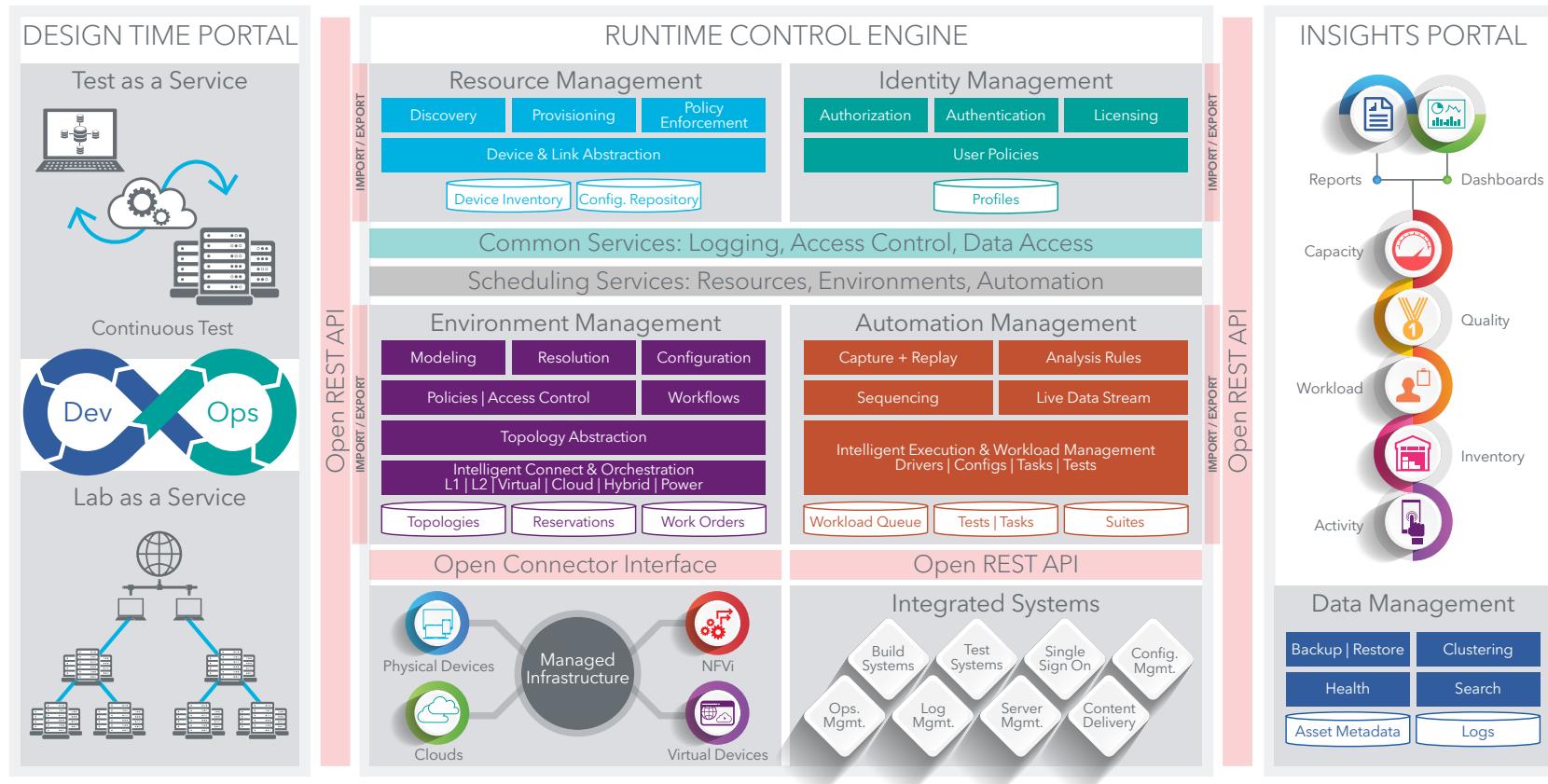
Bridging the chasm requires continuous testing, but CT requires that development teams be empowered with the same understanding of the end customers' use cases and operational environments as QA. CT requires that this knowledge be transferred to the development team in an easily consumable form.



Bridging the chasm also requires empowering QA and development to build and to conduct automated testing.

Spirent provides solutions (Lab as a Service and Test as a Service) that empower Development and QA with tooling to efficiently create automated tests and to run them continuously.

Spirent Velocity Framework



Spirent's **Lab as a Service (LaaS)** and **Test as a Service (TaaS)** platforms seamlessly integrate with your existing DevOps pipeline tool suite by taking advantage of our unique Velocity Framework. The Framework also enables our platforms to scale from single to multiple pipelines and multi-applications to satisfy an individual department's or your entire enterprise's requirements.

Lab as a Service (LaaS)

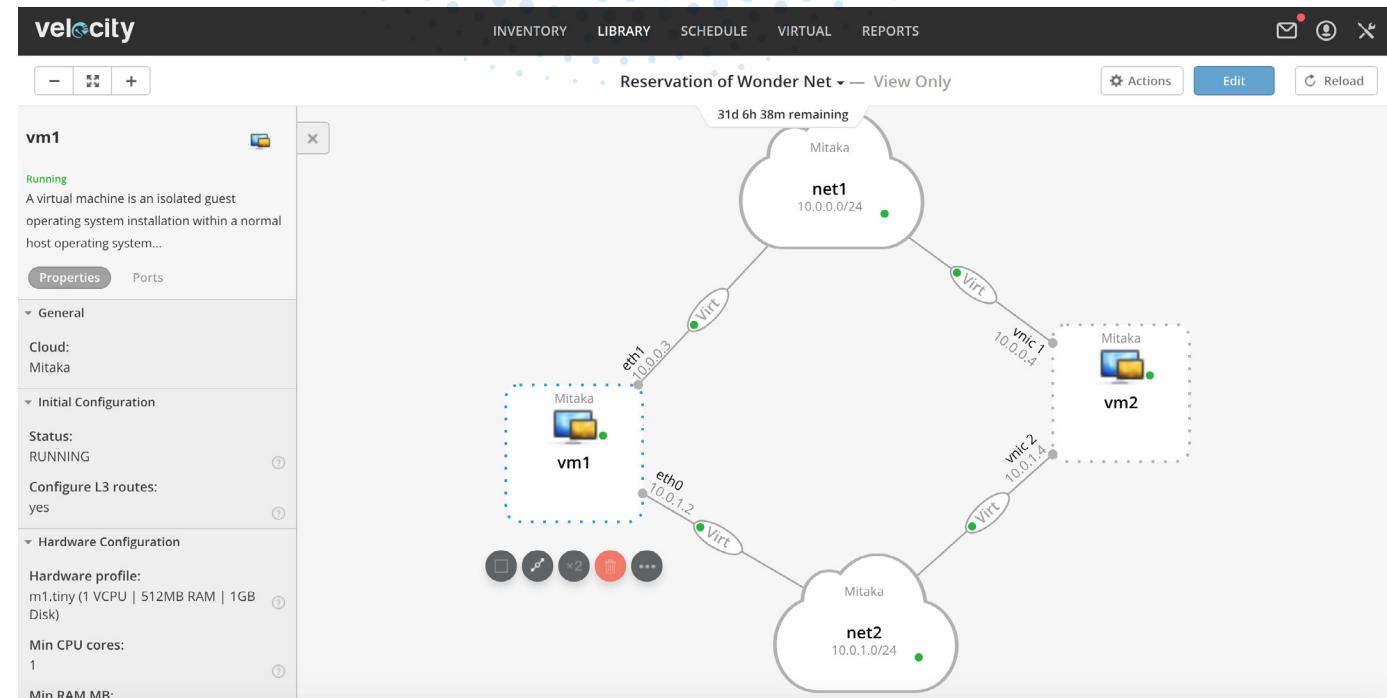
LaaS delivers the resources required by networking developers and QA as well as pre- and post-sales support teams on an on-demand basis. LaaS is the bridge that closes the chasm between development and QA. It captures testers knowledge of real world environments and makes that information easily accessible and reproducible by the developers. Furthermore, LaaS is proven to reduce both CapEx and OpEx.

Key Features

- All customer environment information is characterized and retained
- Straightforward root cause analysis
- Trend analysis with up-to-the-minute dashboards
- North- and south-bound REST APIs integrate with all existing tooling

"Since implementing Spirent's Velocity Lab as a Service, we have seen significant savings by reducing the time our engineers collectively spend per week on lab setup. Further, thanks to the usage metrics that the Spirent solution provides, we can now easily direct resources to equipment that is most in demand and ensure availability to our most important users. The result is improved workflow efficiencies that save money and time for our team, and even more importantly, translates into increased customer satisfaction."

Senior VP
Palo Alto Networks



Lab as a Service with Spirent Velocity.

Test as a Service (TaaS)

TaaS layers on top of LaaS with the addition of automated test creation and continuous test execution.

It strengthens the bridge by enabling continuous testing to be delivered on an on-demand basis to networking development teams. Spirent's Test and Lab as a Service Platforms are tightly integrated to maximize reuse and test coverage.

Key Features

- Tooling for easy automated test creation
- Capture and Replay for increased automated test quality and predictability
- Test case abstraction for reusable tests that simplify validation of multiple testbeds
- Unified test reports streamline root cause analysis by reporting on all testbed devices



Spirent iTest provides unique tooling for automated test creation, a key pillar required for Test as a Service.

CT Implementation Best Practices

Spirent has a great deal of experience working with organizations to implement LaaS and TaaS solutions. The following best practices have been identified:

1. Select a pilot application
2. Take baseline measurements of throughput timeliness and test coverage
3. Decide on realistic, measurable objectives for testbed setup time and test coverage goals
4. Integrate the LaaS/TaaS platform into your existing continuous integration/continuous delivery toolchain
5. Scale up test coverage and test environment efficiency
6. Identify next product/project to tackle using the newly gained LaaS/TaaS CT knowledge



About Spirent



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

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

US Government & Defense
info@spirentfederal.com
spirentfederal.com

EUROPE AND THE MIDDLE EAST
+44 (0) 1293 767979
emeainfo@spirent.com

ASIA AND THE PACIFIC
+86-10-8518-2539
salesasia@spirent.com



Continuous Testing enables dramatic increases in software release delivery rates, improved quality, and higher customer satisfaction.

However, implementing a continuous test solution requires reengineering the CI/CD pipeline, as well as adding new tooling for lab and test automation.

Spirent Velocity and iTest deliver powerful LaaS and TaaS platforms. They are straightforward to adopt thanks to the underlying, modular Velocity Framework. Beyond CTs extensive benefits, by having Spirent's solution in place, customers also commonly experience significant reductions in OpEx and CapEx.

Contact your Spirent Sales person or Systems Engineer to discuss your needs.