Ospirent™
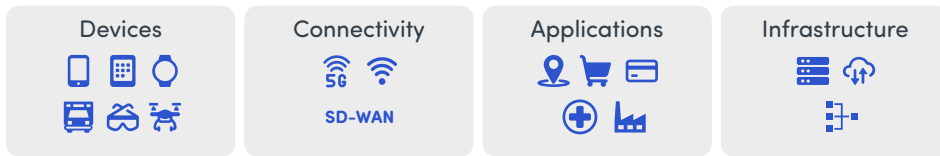
Spirent Enterprise IT Solutions

Are you sure new network technology will perform?

How do you make sure cloud migrations and SD-WAN, Wi-Fi & Ethernet networks perform as expected? How do you know they are secure?
Enterprise networks are undergoing an unprecedented transformation. As wave after wave of new technology rolls out, Enterprises must manage more devices, more types of connectivity, more applications and more complex platforms. As a result, project delays, budget overruns and outright failures are becoming all too common. To succeed with today's complex technology, you need to perform realistic tests before going live. Once live you need end-to-end visibility, and automation across the lifecycle is a must.

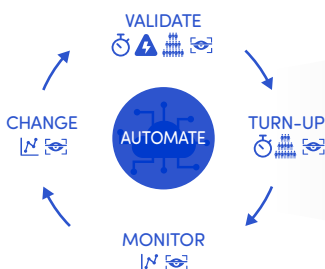| Devices	Connectivity	Applications	Infrastructure
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Spirent Solutions Suite

Transform IT workflows to make sure new network technology performs
From IT vendor bakeoffs to validating new network infrastructure and monitoring network performance, Spirent's Enterprise solutions suite help you adapt your workflows to make sure new technology works. Our **Performance Validation** solutions measure everything from voice quality to packet jitter to rank potential vendors and evaluate new network software and infrastructure to ensure it will perform when deployed.
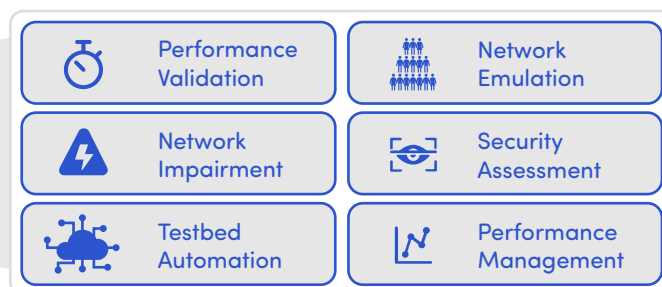
Spirent **Network Emulation** solutions mimic real networks, devices and users so you can recreate real-world conditions in your testbeds – and launch new networks and applications with confidence. By adding controlled **Network Impairment** to emulation, you can precisely assess how networks will respond to faults or degradations, so you can set performance expectations with customers and determine achievable SLAs.

Our **Security Assessment** solutions proactively detect vulnerabilities before, during and after launch, so you can mitigate issues before they're exploited. **Testbed Automation** solutions enable complex testing scenarios to be set up and executed in minutes, while reducing equipment needs with better sharing of resources. Once technology goes live, our **Performance Management** solutions continuously check network health and rapidly isolate problems for fast resolution.

Highlights

- Ensure better performance and user experience for new architectures & technology

- Proactively assess security to mitigate risks before launch & during operation

- Recreate real-world conditions in testbeds to validate designs & assure production performance

- Automate testbeds to accelerate setup by 300x and reduce costs

- Continuously test SLAs to prove compliance to QoE targets and avoid penalties

- Quickly isolate problems, reducing time to resolution and costs

NETWORK & SECURITY LIFECYCLE

VALIDATE
CHANGE — AUTOMATE — TURN-UP
MONITOR

LIFECYCLE ENTERPRISE SOLUTIONS

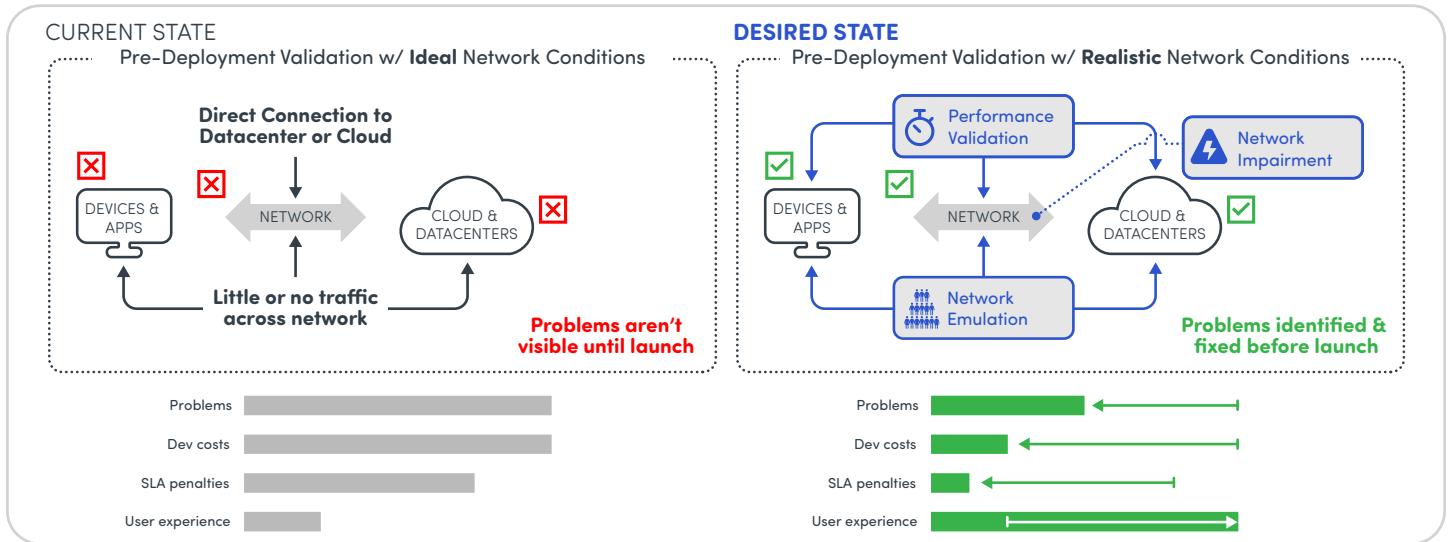|	
⏱️ Performance Validation	👥 Network Emulation
⚡ Network Impairment	👁️ Security Assessment
🔬 Testbed Automation	📈 Performance Management

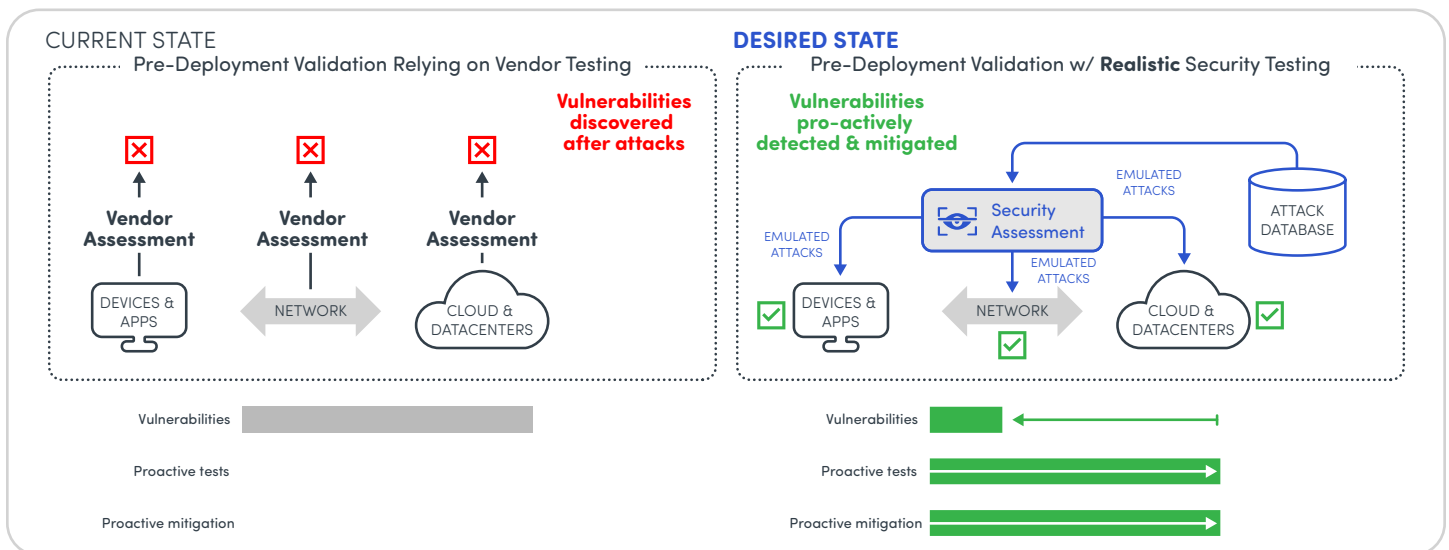# How to transform IT workflows to make sure new technology performs

Reduce problems and costs by increasing the realism of pre-deployment validation

Enterprise IT teams often tell us their pre-deployment testing scenarios are incredibly simple: devices connected directly to datacenters or clouds with little or no traffic on the network. Once the new equipment goes live, problems occur as load increases, leading to impaired experiences and high costs. Spirent combines Performance Validation, Network Emulation and Impairment solutions so real-world conditions can be recreated in controlled testbed environments – before going live. That reduces post-deployment problems which are expensive to correct, improves user experience and helps avoid any SLA penalties for poor performance.

CURRENT STATE
Pre-Deployment Validation w/ **Ideal** Network Conditions

Direct Connection to Datacenter or Cloud

DEVICES & APPS — NETWORK — CLOUD & DATACENTERS

Little or no traffic across network

Problems aren't visible until launch

Problems	
Dev costs	
SLA penalties	
User experience	

DESIRED STATE
Pre-Deployment Validation w/ **Realistic** Network Conditions

Performance Validation

Network Impairment

DEVICES & APPS — NETWORK — CLOUD & DATACENTERS

Network Emulation

Problems identified & fixed before launch

Problems	
Dev costs	
SLA penalties	
User experience	

Find and mitigate security vulnerabilities by proactively emulating realistic attacks

When it comes to security validation, many Enterprise IT teams rely on vendor claims or simplistic software or firmware checks to determine whether new equipment is safe to deploy. Vulnerabilities may only be discovered after an exploit occurs. Spirent Security Assessment solutions mimic real attacks so network and application vulnerabilities can be discovered before deployment. That allows problems to be fixed or mitigated before they are discovered and exploited, hardening security defenses to minimize the effectiveness of attacks and potential related costs or damage.

CURRENT STATE
Pre-Deployment Validation Relying on Vendor Testing

Vulnerabilities discovered after attacks

Vendor Assessment | **Vendor Assessment** | **Vendor Assessment**

DEVICES & APPS — NETWORK — CLOUD & DATACENTERS

Vulnerabilities	
Proactive tests	
Proactive mitigation	

DESIRED STATE
Pre-Deployment Validation w/ **Realistic** Security Testing

Vulnerabilities pro-actively detected & mitigated

EMULATED ATTACKS

Security Assessment

ATTACK DATABASE

EMULATED ATTACKS

DEVICES & APPS — NETWORK — CLOUD & DATACENTERS

EMULATED ATTACKS

Vulnerabilities	
Proactive tests	
Proactive mitigation	

# How to transform IT workflows to make sure new technology performs

Improve network reliability and reduce problem resolution time with active, continuous testing

When we first engage with an Enterprise, the IT team often complain that their lack of visibility of all parts of the network limits their ability to find problems before they become major issues. The root cause of the visibility issue is typically related to the use of vendor-specific monitoring systems and the inability to measure the end-user's true experience at end points. Spirent Performance Management and Security Assessment solutions use active testing agents to evaluate end-to-end network performance and security, with the ability isolate issues to specific segments such as the SD-WAN overlay or underlay. That reduces troubleshooting costs and time to resolution, while minimizing security vulnerabilities and the potential for large-scale outages.
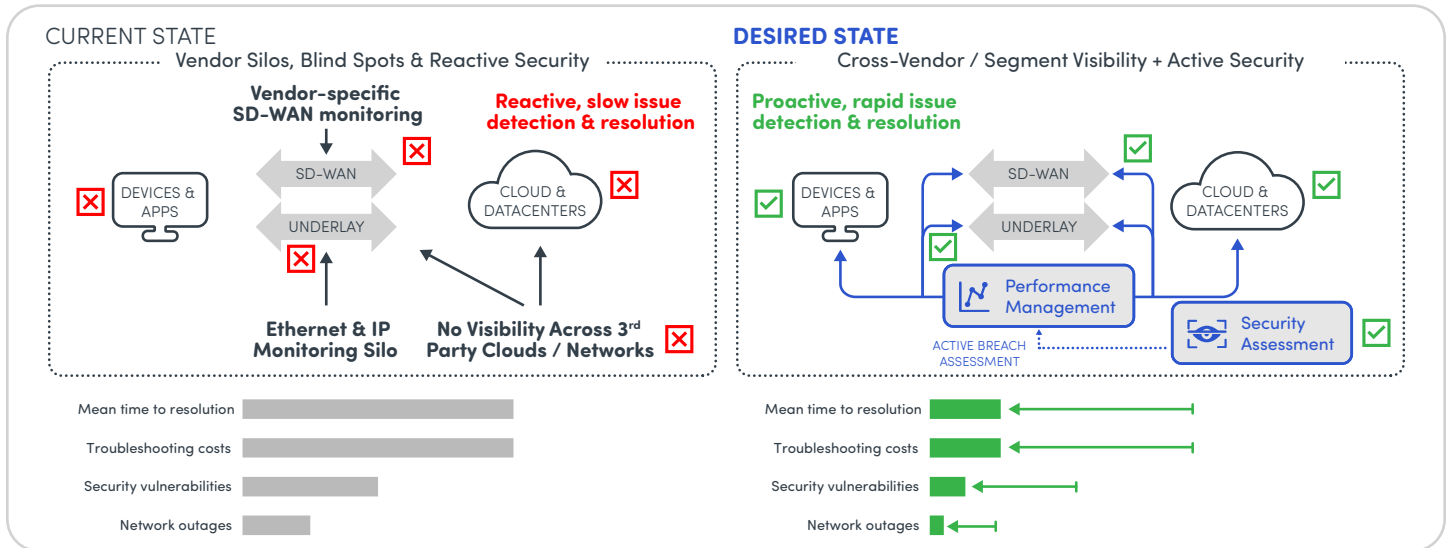
Validate new infrastructure faster for less cost by automating testbeds and DevOps testing

As an Enterprise's testing needs grow over time, testing environments tend to proliferate, resulting in testing resources and infrastructure in multiple physical locations. As the Enterprise scales, the manual nature of this model results in slow setup of testbeds, and low testing capacity and equipment utilization. Spirent Testbed Automation solutions automate testbed workflows including setup and teardown, powering equipment up and down, reserving resources and running tests. Automation dramatically accelerates highly manual workflows such as testbed setup – from days to just minutes. Testbeds are remotely accessible allowing resources to be shared by teams in any location, improving utilization and testing capacity while reducing equipment Capex. Equipment is automatically powered down when not in use, driving energy usage down.
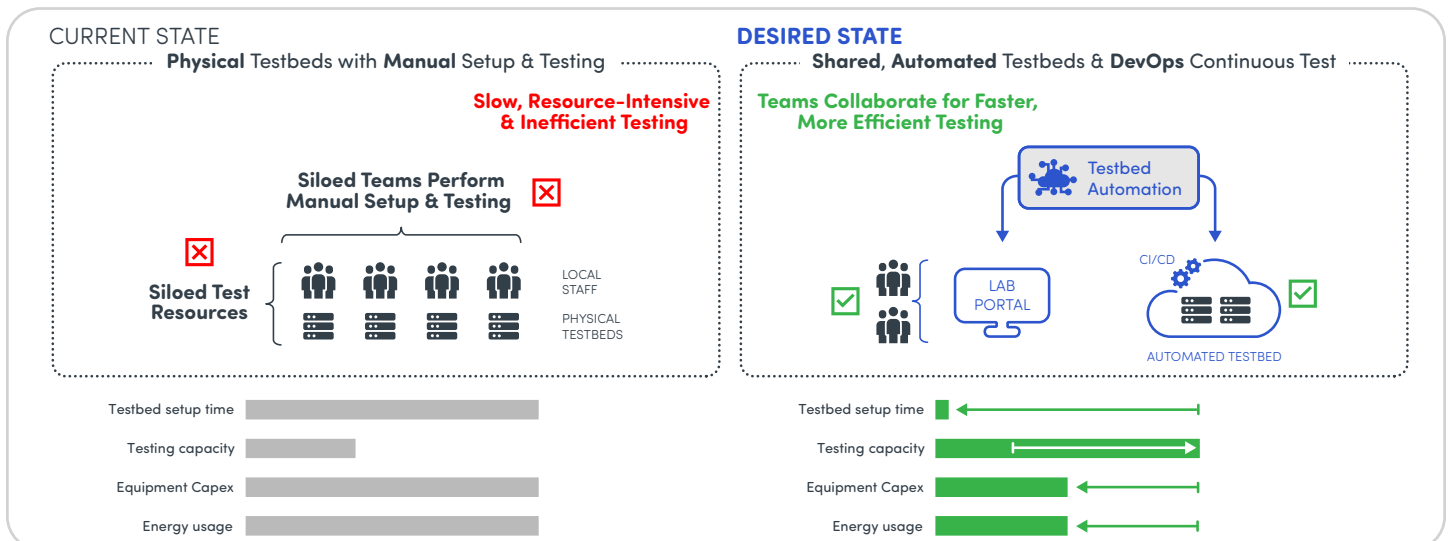
Lifecycle and Technology Coverage

Confidently develop, deploy and operate the latest network technologies

With Spirent's Enterprise solutions you can test networks and security from pre-deployment through to live operation: Cloud, SD-WAN, Ethernet, Wi-Fi 6 and 5G Networks: we've got you covered!

	Solution	Pre-Deployment or Live?	Technology				
			Cloud	SD-WAN	Ethernet	Wi-Fi 6	5G
⏱	Performance Validation	Pre	●	●	●	●	●
⚡	Network Impairment	Pre	●	●	●	●	●
🐞	Testbed Automation	Pre	●	●	●	●	●
👥	Network Emulation	Both	●	●	●	●	●
👁	Security Assessment	Both	●	●	●	●	●
📈	Performance Management	Live	●	●	●	●	●

Get your teams working together as one with CI/CD and DevOps continuous testing

Take a continuous approach to testing with Spirent's test, assurance and automation solutions. Continuous testing offers a consistent approach to testing across all stages of the network lifecycle, a key enabler of CI/CD and DevOps transformations.

Pre-Deployment

- Ensure **better performance** & **user experience** for new architectures
- Proactively assess security to **mitigate risks** before launch
- Recreate real-world conditions in the lab to **assure SLAs** will be met
- Automate testbeds to **accelerate network updates** and **reduce costs**

Cloud, SD-WAN, 5G, Ethernet and Wi-Fi

DevOps Continuous Test

Continuous Integration/ Continuous Deployment
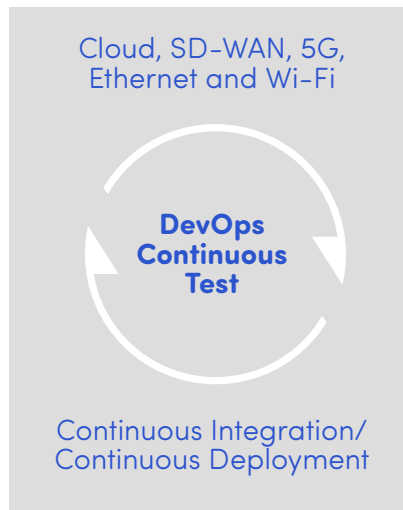
Operations

- Continuously test SLAs to prove compliance and **avoid penalties**
- Quickly isolate problems, **reducing time to resolution** and **costs**
- Proactively assess security to **detect vulnerabilities** & take action
- Understand/optimize the true **user experience** of new apps/services

Learn more about Spirent Enterprise solutions at www.spirent.com/solutions/enterprise or contact us to set up an initial assessment with one of our network and security experts.

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**

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