

# Testing Services

## Service Overview

Businesses continue to evolve their network infrastructure to support current demand or enable the development of new innovative services to generate future growth through new revenue streams. Yet applications have become more complex and require more sophisticated testing. At the same time, testing automation tools and the people with the skills needed to properly execute those tools can be expensive.

Juniper Networks Testing Services help enable a seamless implementation of Juniper products into your environment, reduce your time to market, and accelerate revenue-generating activities by reducing risk and accelerating the migration to a new Juniper platform.

## Service Description

Juniper's Testing Services are delivered by experienced Professional Services consultants using proven processes and technologies. These services allow you to validate that your proposed solution will satisfy your requirements by creating and testing an environment based on your proposed implementation.

A product has many releases during its life cycle, and these services can be used whenever you wish to install a new release. Testing emulates your configuration, identifies any product issues prior to integration into your production network, and can validate specific functionality and/or upgrades prior to going live.

The services are designed to:

- Combine your knowledge of your network's specific performance requirements with Juniper's sound foundation of network design methodology and its products.
- Qualify and validate network functionality and system applications involving Juniper products.
- Identify network problems under realistic scenarios in a highly flexible and scalable network testing environment.

## Testing Approach

Juniper Professional Services configure the test lab to specifically emulate your network configuration and production environment. These services are primarily intended for highly scaled performance testing, and more complex integration testing, which is focused on your specific deployments and network upgrades. This enables you to identify your network's specific issues by emulating your configuration as traffic increases.

Testing is scaled to target maximum workload requirements based on your configuration and to simulate unexpected network events. This ensures that the test scenarios highlight potential network issues in a lab environment and prior to the introduction of the product or solution into your production network.

Table 1: CGN Logging Services Features and Benefits

Feature	Feature Description	Benefit
Access to a specialized test lab	<ul style="list-style-type: none"> <li>Validate your specific solutions</li> <li>Conduct product life cycle testing</li> <li>Benefit from a wide range of skills and expertise on staff dedicated to Testing Services</li> </ul>	<ul style="list-style-type: none"> <li>Avoid the cost of building, staffing, and maintaining your own test lab</li> <li>Control cost for preproduction testing</li> <li>Increase ability to focus on core business activities</li> </ul>
Customized testing	<ul style="list-style-type: none"> <li>Utilize your configuration</li> <li>Mirror your topology</li> <li>Tailor to your production environment</li> <li>Plan several releases of deployment with regular Testing Services engagements</li> </ul>	<ul style="list-style-type: none"> <li>Validate changes to production environment before deployment</li> <li>Test unique/new functionalities with low risk</li> <li>Improve deployment scheduling</li> </ul>
Automation	<ul style="list-style-type: none"> <li>Utilize an automated, scalable testing environment</li> </ul>	<ul style="list-style-type: none"> <li>Decrease time and costs in test cycles</li> <li>Stress-test the proposed solution prior to deployment</li> </ul>

## Testing Options

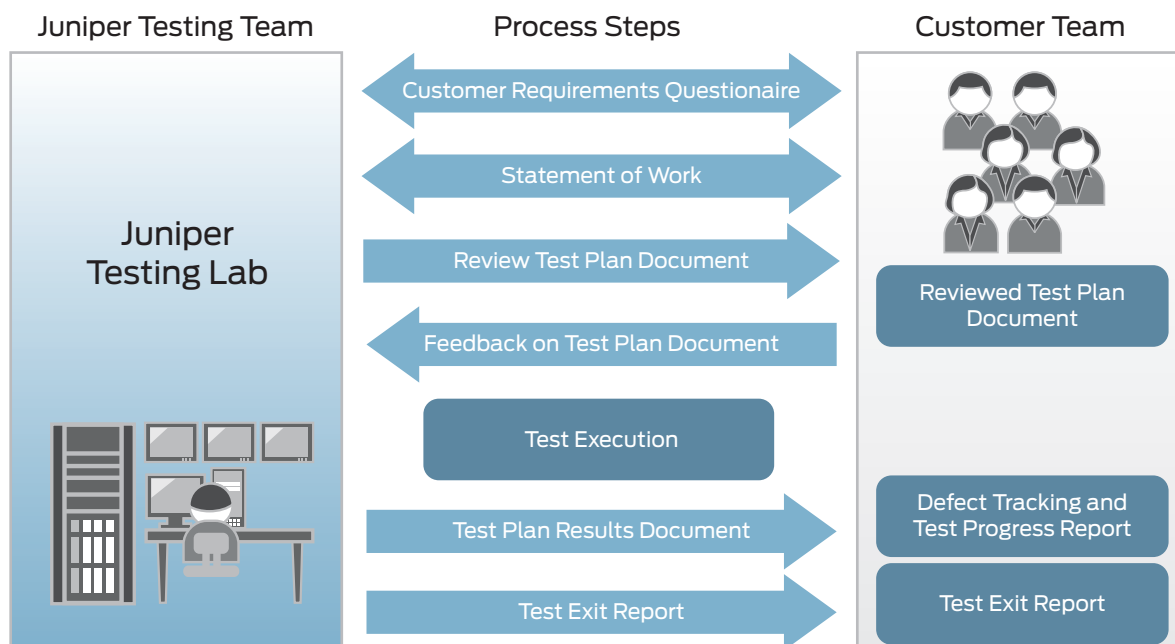
Table 2. Testing Options and Description

Test Scenario Categories	Description
Software certification	<ul style="list-style-type: none"> <li>Ensures a successful software upgrade with supplied customer configuration, which may include changes to the hardware, network, and software.</li> </ul>
Validation	<ul style="list-style-type: none"> <li>Confirms that new features of the equipment or software work as expected.</li> </ul>
Regression testing	<ul style="list-style-type: none"> <li>Confirms that a new software load for existing equipment did not break existing capabilities or workflow.</li> </ul>
Scale and stress testing	<ul style="list-style-type: none"> <li>Determines how the equipment operates as the load is increased and how the equipment fails operating outside of tolerances.</li> </ul>
Network consolidation	<ul style="list-style-type: none"> <li>Allows you to physically model a subset of your topology and replicate representative nodes in the lab.</li> <li>Provides a consolidated design, and then tests the simplified configuration prior to implementation.</li> <li>Delivers the result, allowing you to decide if and when to implement.</li> </ul>
Interoperability testing (IOT)	<ul style="list-style-type: none"> <li>Confirms that equipment from multiple vendors operate together (customer must provide third-party hardware and software).</li> </ul>
Automation	<ul style="list-style-type: none"> <li>Automates some or all of the activities performed by the test engineer using newly developed scripts.</li> </ul>

Testing Services address your challenge of testing, thereby maximizing your ROI by decreasing time to value from your Juniper investment.

## Services Deliverables

The following documents will be reviewed with and delivered to you during the course of the testing engagement:



## Test Services Engagement Questionnaire

- Provides specific network configuration, including platforms, OS version, protocols, applications, and operating environment
- Defines network performance requirements and business objectives

## Statement of Work

- Defines agreed-upon level of effort for testing engagement; identifies specific tasks, reporting requirements, program responsibilities for each party, and period of performance

## Scope

- Outlines the objectives of the project and the goals that need to be met to achieve satisfactory results based on information from the questionnaire and your input

## Test Plan Document

- Outlines a test process that focuses beyond regression and standalone feature testing, and will validate that product upgrades and new features will work in a “real life end-to-end deployment scenario”
- Integrates feature and scale combination test scenarios specific to your network application and network configuration
- Provides a baseline for a joint review of the test plan to improve the understanding of your business and technical requirements and specific testing objective(s)

## Project Plan and Schedule

- Outlines overall test program
- Details network testing scenarios and schedule

## Defect Tracking and Test Progress Report

- Identifies product and network issues found in tests
- Outlines issues and proposed fix; tracks resolution status
- Reports test progress, findings to date

## Test Exit Report

- Prepared as a reference document and provides detailed test results for each individual test case based on analysis of findings
- Summarizes high-level findings and provides potential solutions for improved network behavior

## Additional Testing-Related Services

The following testing-related services are also available from Juniper:

- Development of recommendations for best practices and design changes to optimize your network

## Other Additional Service Options to Optimize Your Network

Juniper Professional Services recommends additional consulting services to consider along with Testing Services that will ensure a successful network design and deployment, and accelerate your business returns. Services to consider in the early stages of your project prior to engaging Testing Services are:

### Strategic Network Consulting

In the planning stage of your project, this service will assist you in determining a strategy for your network architecture and a plan to translate such a strategy into a real solution. It is aimed at understanding your business needs, determining the impact of the changes on your existing network infrastructure, and providing architectural guidance and recommendations on how to ensure the network will change in a controlled manner.

### High-Level Design

Implementing a new network or security project starts with an evaluation of the requirements and a detailed rendering of the architecture to be used. The High-Level Design service defines the topology, protocols, and equipment required, mapping the design to your needs.

### Low-Level Design

Once the High-Level Design of a network is determined, the specifics need to be identified. The Low-Level Design service identifies the optimal configuration and equipment necessary to make your network a reality.

### Implementation Consulting

Subsequent to the lab testing, the Implementation Consulting service offers remote or onsite engineering assistance to support execution of a predefined implementation plan. This service is typically used to help you in implementation, migration, testing, and troubleshooting types of activities that include: reviewing configurations for implementation; performing implementation tasks and testing; and monitoring the Juniper devices and tuning configurations as required.

## Juniper Networks Services and Support

Juniper Networks is the leader in performance-enabling services that are designed to accelerate, extend, and optimize your high-performance network. Our services allow you to maximize operational efficiency while reducing costs and minimizing risk, achieving a faster time to value for your network. Juniper Networks ensures operational excellence by optimizing the network to maintain required levels of performance, reliability, and availability. For more details, please visit [www.juniper.net/us/en/products-services](http://www.juniper.net/us/en/products-services).

## Ordering Information

To order Juniper Networks Testing Services or for additional information, please contact your Juniper account manager.

The Juniper Networks Testing Services can be ordered using the part number shown in the table below. Before Testing Services begin, a statement of work (SOW) will be established outlining the scope of effort to be performed.

Model Number	Name
PRO-TEST-TAAS	Testing Services

## About Juniper Networks

Juniper Networks is in the business of network innovation. From devices to data centers, from consumers to cloud providers, Juniper Networks delivers the software, silicon and systems that transform the experience and economics of networking. The company serves customers and partners worldwide. Additional information can be found at [www.juniper.net](http://www.juniper.net).

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