

TESTING-AS-A-SERVICE

Service Overview

Juniper's Testing-as-a-Service helps accelerate the deployment of new technologies and services by validating your architecture, design, and network prior to rollout, mitigating the impact of project delays, outages, and other potential problems early in the network life cycle.

Two versions of the service are available. The first utilizes Juniper's Customer Certification Labs (CCL) physical infrastructure, while the second is based on a virtual Cloud CCL environment.

Service Description

Juniper Networks® Testing-as-a-Service (TaaS) offering uses Juniper's physical Customer Certification Labs (CCL) and virtualized infrastructure (Cloud CCL) to replicate your network topologies, configurations, traffic flows, and real-life environments to validate all planned changes and emulate future requirements. The TaaS helps you validate specific functionality of scheduled upgrades or changes to mitigate any risk to your production network.

Based on your unique requirements, Juniper TaaS can be used to build a clone of your network in the CCL, replicate your environment in a Juniper data center; build a virtualized lab using Cloud CCL resources; or build a hybrid test bed with both physical and virtual lab components.

Juniper's Cloud CCL is a web-based service that allows networking professionals to build instantaneous virtualized models of their operational networks. Cloud CCL enables you to validate new features or specific network deployments using Juniper virtualized network functions (VNFs) without requiring the intensive capital investment of a physical lab.

The overarching goal of Juniper TaaS is to mitigate implementation and operational issues while improving business outcomes, accelerating time to market for new services while improving network stability.

Juniper has made major investments in its Customer Certification Labs, both in terms of people and hardware (Juniper as well as advanced third-party equipment) for network solution testing. Labs are located in the U.S. (east and west coast), Europe, and India, providing full global coverage.

Juniper TaaS Workflow

For the physical CCL, a complete end-to-end solution validation cycle is offered, from gathering the full requirements and creating an exact clone of your network to driving the targeted software and hardware selection with an automated, reproducible, and scalable testing environment.

Juniper's Test Automation Framework, integrated in TaaS, is purpose-built to improve testing speed and efficacy to accelerate the product validation process. With access to market-proven testing practices and technologies, as well as technical expertise, TaaS provides high-quality outcomes for our customers, delivering a suite of testing services that address a wide range of customer requirements across all industry segments (see Table 1).

Table 1: TaaS Deliverables

Functional and Regression Testing	Scale and Performance Testing	Upgrade and Migration Testing
<ul style="list-style-type: none"> • Software certification • Integration testing • Negative testing • Regression testing • System testing • Interoperability testing 	<ul style="list-style-type: none"> • Routing scale testing • Policy scale testing • Convergence and failover performance testing • Port performance testing • Line-card performance testing 	<ul style="list-style-type: none"> • Method of Procedure (MOP) testing

The Juniper TaaS team, comprised of network test engineers and technical program managers, works closely with you to develop a detailed test plan (see Table 2).

Table 2: TaaS Detailed Test Plan

Project Scoping	Test Cycle Planning	Environment Setup	Test Execution	Issue Management	Test Exit Reporting
<ul style="list-style-type: none"> Requirements collection Topology review Test criteria review Bill of Materials (BOM) verification 	<ul style="list-style-type: none"> Test plan development Integration of combined feature and scale test scenarios Test plan outline Formal review Overall test program outline 	<ul style="list-style-type: none"> Building and configuring test environment to prepare for test execution 	<ul style="list-style-type: none"> Test plan implementation Test automation 	<ul style="list-style-type: none"> Defect reporting and tracking Tracking of resolution status and workarounds 	Provides: <ul style="list-style-type: none"> Test results High-level findings and analysis Recommendations for best practices to optimize customer's network operations

Juniper's subscription-based Cloud CCL service complements the physical offering; this versatile web-based testing platform allows you to validate network deployments without the cost, complexity, or limitations of a physical network lab. The tool incorporates open-source based automation capabilities into the testing process, making it more repeatable, agile, and less error-prone. Cloud CCL supports Juniper Networks vMX Virtual Router, vSRX Virtual Firewall, vQFX Virtual Switch, Junos Space®, JSA Series Secure Analytics, and leading third-party traffic generators. The tool is available 24x7 and is hosted in dedicated data centers owned and operated by Juniper.

Juniper Networks Service 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.

Ordering Information

Please contact your Juniper account manager, partner account manager, or service business manager to learn more about how Testing-as-a-Service can benefit your organization.

The following SKUs have been set up to simplify the ordering process.

Model Number	Description
PRO-JSD-TAAS	Custom-priced Testing-as-a-Service validating architecture, design, and network utilizing Customer Certification Lab
PRO-JSD-CCCL-A-25	Cloud CCL: Annual plan with ability to use up to 25 VNFs
PRO-JSD-CCCL-A-50	Cloud CCL: Annual plan with ability to use up to 50 VNFs
PRO-JSD-CCCL-M-25	Cloud CCL: Monthly plan with ability to use up to 25 VNFs

About Juniper Networks

Juniper Networks brings simplicity to networking with products, solutions and services that connect the world. Through engineering innovation, we remove the constraints and complexities of networking in the cloud era to solve the toughest challenges our customers and partners face daily. At Juniper Networks, we believe that the network is a resource for sharing knowledge and human advancement that changes the world. We are committed to imagining groundbreaking ways to deliver automated, scalable and secure networks to move at the speed of business.

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