

Elevate Customer and Operator Experiences with Juniper Validated Designs (JVDs)

Ensuring resilient, repeatable, and reliable network architectures

Get started designing and deploying optimal networks.

[Explore JVDs →](#)

Deliver seamless user experiences

Improve operational simplicity

Supporting the needs of modern enterprise, data center, and service provider environments requires implementing networking technologies that are constantly evolving. IT departments in these domains are under tremendous pressure to deliver seamless experiences to internal and external users.

The capabilities you need

Qualified deployments and upgrades

JVDs provide prescriptive architecture for building repeatable networks with well-documented capabilities and appropriate product/software release selection.

JVDs provide prescriptive architecture for **building resilient networks.**

● Reduce complexity

The JVD program develops solutions that reduce the complexity and support burden of networking teams.

● Superior design

Juniper selects designs for validation based on industry standards and the most common use cases of our customers.

● Simplify user experience

JVDs deliver simplified and exceptional operator experiences.

The challenge

Modern networking hurdles

Supporting the needs of modern enterprise, data center, and service provider environments requires implementing complex networking technologies that are constantly evolving. IT departments in all these domains are under tremendous pressure to deliver seamless experiences to internal and external users alike.

Examples include Internet of Things and cloud access in the enterprise, massive scale-out for data center and campus fabrics, AI training, and heterogenous service provider edge environments.

Fulfilling these requirements presents different challenges for professionals at all levels:

- Executives in CIO and VP IT roles need assurances about reliability, scale, and cost efficiency—all of which depend on operational simplicity.
- Architects need to determine the right solution to meet the executive requirements with minimal implementation risks, and they need to decide which products fit the solution design.
- Network engineers and operators must find ways to implement solutions with minimal complexity and risk, determining best practices for solutions that minimize the operational overhead of transitioning to new products and technologies.

The solution

Juniper Validated Designs (JVDs) are detailed implementation documents that are well characterized, capable of prescribing specific devices, applications, and Junos versions. They work because they are well tested and repeatable, leveraging best practices and decades of experience to simplify deployment for any enterprise.

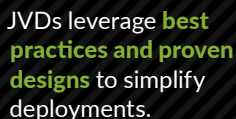
Using a JVD yields reliable and predictable experiences and performance. Customers are ensured better experiences from the point that they open the first box to when they deploy their network solution, including support engagements as well.

Each JVD includes a solution overview and test report.

To cover more environments and user scenarios, JVDs are designed with a unique approach for detailed standard architectures based on best practices, serving as a core upon which JVD Extensions are built. These extensions add incremental configurations for specific functionality beyond the scope of the JVD.

JVDs and JVD Extensions provide:

- The right data for qualified deployments
- The right infrastructure for risk mitigation
- Predictability for all documented solutions



JVDs leverage **best practices and proven designs** to simplify deployments.

Qualified deployments and upgrades

JVDs provide prescriptive architecture for building resilient networks with well-documented capabilities and appropriate product/software release selection.

They achieve this using:

- Repeatable architectures
- Integrations with Juniper and third-party products
- Guided walkthroughs and procedures to streamline the development process

This methodology ensures compliance and facilitates interoperability with other systems and technologies, along with reducing upgrade risk and the time required for testing prior to upgrading.

Risk mitigation

Developed and tested with real world applications and traffic, JVDs are designed to meet the majority of customer needs, using the best practice combination of products, features, and tools.

This ensures:

- A reduced risk of errors and misconfiguration that could impact operations
- Designs and implementations that provide the best performance, reliability, and security
- Simplified support with a shorter time to root cause analysis

Predictability

The testing methodologies for JVDs help set expectations and deliver more reliable, predictable, and measurable deployments. Testing efficiency is ensured through layered trust and consistent building blocks (Figure 1).

The layered testing model works as follows:

- The process begins with functional testing of new features
- Following this, multifunction testing (MFT) across features is performed to ensure the soundness of the solution architecture
- This is followed by product delivery testing (PDT) which includes regression, scale, and stress tests for each product family
- Finally, end-to-end testing of the solution is performed using real-world models. In this stage, output from the PDT is leveraged for Juniper and third-party products, and workloads using real world traffic.

This methodology is aligned with industry standards and best practices. Resultant customer solutions are easy to design and maintain over time, ensuing reduced time and resources for network maintenance.

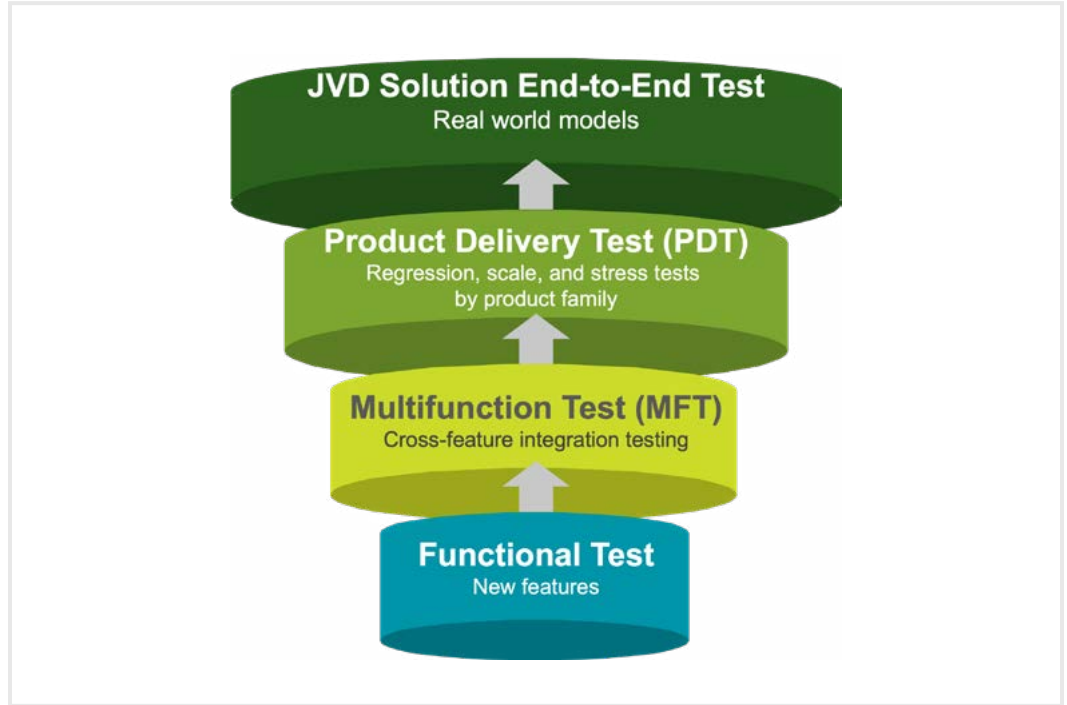


FIGURE 1
JVD layered testing model

**Resilient, reliable,
and repeatable**

The testing methodologies for JVDs help set **expectations and deliver more reliable, predictable, and measurable deployments.**

Best practices lead to best outcomes	Help customers make informed decisions by building solutions with known characteristics and performance profiles
Accelerated decisions	Bridge business and technology in designs that meet the needs of most customers and consider how features behave and operate in real world applications and conditions
Reliability under pressure	Provide quantified and integrated solutions, tested with traffic in best practice designs based on specific platforms and software versions
Repeatability	Unlock value with repeatable network designs
Accelerated deployment	Simplify deployment with guidance, automation, prebuilt integrations, and fixed package services

Our advantage

JVDs optimize operator and user experiences

JVDs provide blueprints for the successful implementation of solutions in all network domains across the portfolio. With the extensive testing underlying JVDs, operators can set performance expectations and ensure faster, more reliable deployments. This makes it easy for businesses to quickly implement resilient, reliable, and repeatable solutions.

Why Juniper

The NOW Way to Network

Juniper Networks believes that connectivity is not the same as experiencing a great connection. Juniper's AI-Native Networking Platform is built from the ground up to leverage AI to deliver exceptional, highly secure, and sustainable user experiences from the edge to the data center and cloud. Additional information can be found at Juniper Networks (www.juniper.net) or connect with Juniper on [X](#) (Twitter), [LinkedIn](#), and [Facebook](#).

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Learn how we can build what's next.

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