



CASE STUDY

Company:

NoviFlow

Industry:

Technology Manufacturer

Key Issues:

To help ensure its switches were delivering all the performance they promised, NoviFlow needed a robust, scalable testing platform.

- Need to verify performance of data center switches
- Ability to scale testing to support multiple users

Solutions:

- IxNetwork® supports switch functional and performance testing
- Ixia XGS12-SD™ modular chassis powers high port density Ethernet testing

Results:

- Optimized quality control and validation of product performance
- Shared testing enables better workforce utilization
- Proven testing on a leading platform improves industry credibility

NEXT-GENERATION SWITCH MANUFACTURER CHOOSES IXIA TO VALIDATE PERFORMANCE

NOVIFLOW ENHANCES QUALITY ASSURANCE FOR HIGH PERFORMANCE ETHERNET SWITCHES

Based in Montréal, NoviFlow Inc. develops high-performance OpenFlow-based switching solutions and applications to network carriers, data center operators and enterprises seeking greater control and flexibility over their networks. Its solutions are designed to address the key needs of software-defined networking (SDN) deployments. NoviFlow's customers want the capacity to be able to handle large numbers of flows, and they must be able to scale easily. Maximum performance is critical to keep pace in the competitive networking industry.

To meet these requirements, NoviFlow introduced the NoviSwitch, an advanced commercial-grade OpenFlow switching solution that offers up to 240 gigabits per second of true wire-speed performance, one million flow entries, and over 40,000 flowmods per second.

But to deliver the groundbreaking performance its customers expect, NoviFlow needed to confirm that it would perform as expected in real-world situations. The company's research and development (R&D) group is responsible for testing and validating performance of its hardware and software. The team wanted a test solution that could handle high throughput associated with data center environments.

“Our team did not have the tools we required to confirm that our solutions delivered the full 240 gigabits per second of performance,” says Luc Mayrand, Vice President, R&D at NoviFlow. “We needed a test platform that would verify that we were delivering on what we promised.”

A PLATFORM TO VALIDATE PERFORMANCE

To fully test its switches, NoviFlow deployed a test platform built around Ixia solutions. NoviFlow had utilized testing tools from another vendor to check performance on individual switch ports, but that vendor wasn't able to test the full throughput capabilities.

“I had been familiar working with Ixia testing solutions at previous organizations, so I was comfortable with them and confident that they would meet our needs,” says Mayrand.

Emulating strenuous network conditions with real-world network and application protocols and security attacks, Ixia's industry-leading test solutions enable NoviFlow to quickly validate devices and accelerate the delivery of proven, reliable products.

COMPREHENSIVE, INTUITIVE TESTING

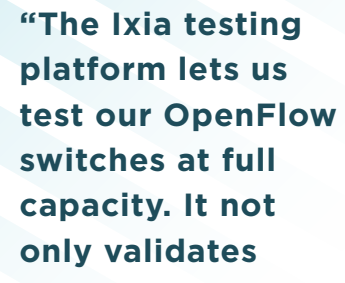
NoviFlow deployed IxNetwork®, a test application that includes powerful graphical user interface wizards for simplified creation of sophisticated traffic flows with real-time analysis and statistics.

With IxNetwork, NoviFlow can emulate millions of routes and reachable hosts and can customize millions of traffic flows to stress data plane performance. Its enhanced real-time analysis and statistics are capable of reporting comprehensive protocol status and detailed per-flow traffic performance metrics.

ENABLED BY A POWERFUL PLATFORM

IxNetwork resides on Ixia's XGS12-SD™ 12-slot modular chassis, which powers the industry's highest port density Ethernet test system available. This flexible platform lets NoviFlow take advantage of a comprehensive solution for performance, functionality, security, and conformance testing of its data center switches.

Operating together with Ixia's test applications and automation APIs, the chassis provides the power and performance necessary for layer 2-7 testing on a large-scale basis.



“The Ixia testing platform lets us test our OpenFlow switches at full capacity. It not only validates our performance expectations, but Ixia's strong reputation as a leader in testing offers additional credibility for the quality of our products.”

— Luc Mayrand, Vice President, R&D at NoviFlow

SCALABLE, FLEXIBLE PRODUCT TESTING

NoviFlow relies on Ixia's testing platform to help ensure that customers will have a consistently positive experience as a result of advanced carrier-grade SDN switches.

"We simply did not have the tools available to perform this level of testing prior to deploying the Ixia solution," says Mayrand.

The solution not only enables NoviFlow to check and validate performance, but helps the firm utilize its R&D resources more effectively and quicken time to market.

"We like the fact that our Ixia platform can support multiple users," says Mayrand. "Our teams can work together more effectively and complete their work faster."

LOOKING AHEAD

With its comprehensive testing solution in place, NoviFlow is exploring ways to enhance its ability to test the functionality and performance limits of the OpenFlow interface. The firm is evaluating the IxNetwork OpenFlow Controller Emulation solution, and is also considering using the OpenFlow QuickTest and OpenFlow Conformance Test Suite.

"OpenFlow is fast becoming the de-facto technological means of realizing the SDN vision," says Mayrand. "Our leadership in OpenFlow switches is a major competitive differentiator for us, and we're looking forward to continuing to employ Ixia solutions to validate our product performance."

ABOUT IXIA

Ixia provides testing, visibility and security solutions, strengthening applications across physical and virtual networks for enterprises, governments, service providers, and network equipment manufacturers.

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