Delivering Scalable Programmable Networks and SDN Solutions: NoviFlow

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Dominique Jodoin, President and CEO, NoviFlow

'Leveraging SDN technology to resolve specific network pain points and improve network economies'

NoviFlow develops high performance ethernet switches compliant with the latest OpenFlow protocol and designed to provide high performance, programmability, and solutions that can scale. The company's products provide the industry's broadest support of the OpenFlow 1.3 and 1.4 specifications, including all actions, instructions and match fields as well as key OpenFlow 1.5 features, delivering up to 357 Gbps of throughput, up to 16 million flow entries and up to 40,000 flow-mods per second.

Since the founding of NoviFlow in 2012 as a spin-out from UQAM (the University of Quebec At Montreal), NoviFlow was the first company in the world to deploy OpenFlow on Network Processors, a technological advantage that has propelled NoviFlow and its products into the global leadership position in high-performance SDN solutions. Today the inherent advantage of this approach has been proven in the field via deployments of our products at a host of major network operators such as Telstra, resulting in an ever increasing demand for our solutions. NoviFlow's products are being used as switches, WAN IP/MPLS routers, network appliances and other high-performance forwarding planes, and are already deployed in over 20 countries around the World. NoviFlow is headquartered in Montreal and has offices in Sunnyvale, and Seattle.

In conversation with the Key Executives

Tell us about your first product that was launched?
Our initial successes came in providing our high-performance switches and gateways at the edge of the network to Far-Eastern markets such as Japan, Taiwan, Australia and New-Zealand, where key network operators were the first in the world to adopt and deploy SDN in their networks, and who drove much of the initial definition of SDN and OpenFlow. We also made a deliberate choice to become a key participant in the Open Networking Foundation, the main industry consortium responsible for defining Open SDN and OpenFlow. This provided NoviFlow with the platform to establish its thought and technology leadership position within the SDN community.

What drives/inspires you to excel in your field of business?
NoviFlow believes in the vision of SDN: that the network cannot remain an inscrutable black-box, but rather that it has to become a fully programmable entity that can interact directly with those entities (applications, compute and storage) that use network resources, and that can change its behavior in real time based on those needs, on service agreements and network policies. This is fundamentally changing the nature of networking and its impact on businesses, making for a truly exciting time of disruption and growth, and providing incredible opportunities for innovative companies such as NoviFlow!

How do you and your company contribute to the global IT platform and society at large?
We are major participants in the Open Networking Foundation, and many leading Open Source Projects that are changing the face of networking. These include the ATRIUM project, CASTOR, CORD, FAUCET, TELESCOPE and others. NoviFlow is also sponsoring inside-openflow.com, a site that brings together into one place everything programmers and operations people need to get started with OpenFlow on a standard personal computer: open source tools, installation guides, code samples, testing tools and practical how-to articles that make it easy to get set up and start exploring the benefits of Software Defined Networking!

What do you feel are the reasons behind your product popularity?
Since 3-4 year now, early adopters have deployed ASIC or X86-based SDN networks only on small scales, but they now try to scale up they find out that these technologies are highly inefficient at scale, and this is when they come to NoviFlow, as our unique NPU-based SDN products have been specifically designed from ground up for scalability and efficiency. And thanks to the possibility to reprogram our networking products in the field, we have also developed a reputation of delivering new capabilities to our customers quickly and on-time. For example, this capability, combined with our huge table capacity of millions of flows, makes our offering the ideal platform on which to implement cybersecurity solutions, leading to a significant new market for our products in this fast growing segment.

Do you have any new products ready to be/getting ready to be rolled out into the market?
At MEF, we are introducing NoviWare 400.1, a new version that introduces several features targeting network operators and enterprises deploying SDN applications in large scale networks, including up to 16 million flow table entries, up to 1 million active meters, and automated installation.

Where do you see you and your company a couple of years from now?
We think SDN will continue to mature and the scope of network solutions it provides will continue to broaden. We see a major potential for SDN, and especially high-performance forwarding planes such as NoviFlow's NoviSwitches, to become key element in Cybersecurity, as well as the ongoing move to deliver networking-as-a-service, the delivery of scale-out SDN based switching and routing, and the enablement of the full deployment of virtualization in networks. We also see a continued shift to higher network bandwidth requirements from 4K video, VR and augmented reality, as well as a further multiplication of connected devices with the deployment of the Internet-of-Things.

Meet the Master

Dominique Jodoin, President and Chief Executive Officer: Dominique has more than 25 years of experience in the high tech industry, with over 10 years in successful venture-backed companies. Previous positions include: President & CEO of Bluestreak, a provider of embedded video software to the wireless and cable industries (acquired by Espial); EVP Business Development and President Americas at Red Bend Software, a venture-backed provider of Mobile Software Management solutions (acquired by Harman International Industries); and EVP Sales at WaterCove Networks, a venture-backed company provider of networking products (acquired by Alcatel-Lucent). He also has worked for 17 years within the Ericsson Group, in a variety of executive positions with global sales and marketing responsibilities, in Canada, the US, Sweden and around the world.

"SDN make it possible to optimize networks on the fly and quickly respond to changes in network usage without the need for purchasing new hardware."