Juniper Acquisition of AppFormix Advances "Self-Driving Infrastructure"

December 08, 2016

By: Brad Casemore, Rohit Mehra

IDC's Quick Take

Juniper Networks recently announced the acquisition of AppFormix, a start-up company that leverages big data analytics and machine learning to provide automated cloud operations management. IDC notes that analytics necessarily will provide the foundation for the automation of network infrastructure operations, especially for cloud-native application environments. Juniper's acquisition of AppFormix represents significant follow-through on its strategic objective of providing "self-driving infrastructure."

M&A Announcement Highlights

On December 1, Juniper Networks announced its intent to acquire AppFormix, a San Jose, California-based start-up dedicated to cloud operations management. Financial terms of the transaction were not disclosed. Subject to closing conditions, the acquisition is expected to close fairly quickly in the fourth quarter of 2016. When the deal does close, AppFormix team members will report to Juniper's office of the CTO and AppFormix will remain a Juniper brand and will continue to market its technology under the AppFormix name.

Prior to the acquisition, Juniper and AppFormix had been working together to integrate Juniper's Contrail network virtualization platform with AppFormix's cloud operations platform, which leverages big data analytics and machine learning to provide clouds with what Juniper calls "self-driving infrastructure."

Juniper contends that AppFormix's utilization of machine learning is well placed to redefine telemetry and operations management across software-defined infrastructures and application software layers. AppFormix's technology is designed to provide operators of public, private, and telco clouds — in both OpenStack and Kubernetes environments — with real-time and historic monitoring, visibility, and dynamic performance optimization.

Juniper contends that AppFormix's technology platform is unique in its combination of machine learning and streaming analytics with application awareness of orchestration systems like OpenStack and Kubernetes. As it integrates AppFormix's technology not only with Contrail but also with its network hardware, Juniper believes that it will be able to give operators of OpenStack and Kubernetes an automated environment that will be well attuned to multidisciplinary DevOps teams and optimized for developer agility.

IDC's Point of View

The application of big data analytics and machine learning to network performance is a growing trend that has garnered more relevance in parallel with the increased momentum behind network virtualization. Add into the mix increased security risks and vulnerabilities and one can see the case for security platforms to interoperate with network visibility tools and vice versa. Vendors up and down the network stack recognize that analytics and visibility are essential to effective automation. After all,

automation will not fulfill its promise unless it is informed and intelligent and the intelligence that ultimately informs automation must come from analytics. This is a competitive area, however, with several major network infrastructure vendors offering products and technologies that feature analytics and visibility in service to network performance and automation.

Indeed, this was an area where Juniper had signaled a clear intent to establish a leadership position, through both organic and inorganic means. The acquisition of AppFormix demonstrates that Juniper is executing on its plan, with the former's technology likely to be integrated quickly with all relevant Juniper products across all the major market segments — CSPs, cloud, and enterprise — where Juniper competes.

The acquisition also attests to the growth of both OpenStack and Kubernetes as application environments across Juniper's installed base of customers at service providers, large enterprises, and cloud service purveyors. In the telco world, for instance, Juniper is delivering agile, virtualized networking technologies to support its customers' network functions virtualization (NFV) initiatives. In that context, AppFormix will be positioned as providing a platform that can help monitor and optimize NFV in scale-out environments.

Finally, IDC notes that Juniper's acquisition of AppFormix puts substantive meat on the bones of Juniper's self-driving infrastructure. At Juniper's NXTWORK 2016 event in October, CEO Rami Rahim expounded on the growing importance of what he termed the "self-driving network," which, as he described it, was directed and powered by massive amounts of data ingested through machine learning and big data analytics techniques. The result of this process, in Rahim's view, was that network infrastructure would become adaptive and proactive — and hence self-driving.

At the very least, Juniper must have been looking for ways that it could further its vision of self-driving infrastructure when Rahim spoke on the subject at NXTWORK. Perhaps, as seems likely, Juniper already was planning the acquisition of AppFormix. Regardless, the acquisition of AppFormix is perfectly aligned with Juniper's strategic direction and brings the concept of self-driving infrastructure closer to fruition for Juniper's customers.

Subscriptions Covered:
Carrier IP Network Infrastructure and Virtualization, Communications Service Provider Operations, Datacenter Networks, Enterprise Communications Infrastructure