



Juniper Networks launches cloud-native platform in record time



The Company

Juniper Networks solves the world’s most difficult problems in networking technology. A company of innovators, Juniper has been engineering some of the world’s most sophisticated end-to-end advancements in network security, automation, performance, and scale, consistently pushing the envelope on predictability, programmability, automation, and insights.

The Challenge

Juniper operates its data centers on-premises, typically running containers on bare metal to reduce virtualization licensing fees. Its operational goals are standard for any modern enterprise serving 1000s of developers worldwide: four-nines reliability, high availability with 24/7 SLAs, and the capacity to quickly and confidently scale elastically, vertically, and horizontally.

The ability to upgrade seamlessly without impacting the DevOps community and product development is also critical. The Juniper tech stack is built on a flexible architecture, and it includes a considerable open-source component. According to Ravi Ravichandran, Juniper’s VP Engineering, Cloud Platform, and Devops, “We want the freedom to leverage all the new capabilities coming out of the open-source community, but updating this software brings its own complexities.” Every new release has to be tested and validated to ensure interoperability.

In this environment, Ravi undertook a major revamp of the Juniper cloud platform. He says, “We’re starting on-premises, but I needed to lay the roadwork in a way that tomorrow, when we need to run these applications in a public, private, or hybrid cloud, I won’t need to change the underlying platform.” And



Industry: Technology and networking

Deployment model: Multiple on-premises data centers, bare metal

Platform9 services: Kubernetes-as-a-service (KaaS), KubeVirt-as-a-service (for running VMs on Kubernetes)

Results:

- **Successful global launch within six weeks vs. an estimated 6-12 months with DIY**
- **50% savings vs. DIY costs and VM licensing fees**
- **High availability with a 24x7, 99.95% uptime SLA**



Ravi Ravichandran, VP Engineering, Cloud Platform, and Devops, Juniper Networks

“Taking a maintenance window on our nonstop Kubernetes SaaS offering is a nightmare. Nobody likes maintenance windows. With Platform9’s Kubernetes “rolling upgrades,” there are no disruptions, no downtime, and no maintenance windows anymore.”

Platform9 freed the Juniper team from day-to-day operational issues to focus on strategic innovations and speed getting revenue-generating apps to market.

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Their goal was to launch within six months. However, they estimated that an inhouse (DIY) or a commercial software approach could take up to a year to implement.

“If we tried to implement Kubernetes ourselves, it would have added another 6 to 12 months to reach our current production stage with global deployments around the world. With Platform9, we did it in six weeks — record time.”

at least for the Kubernetes and Docker layer, he didn’t want to hire 10 or 12 people to do upgrade validations or to manage and monitor operations. Their goal was to launch within six months. However, they estimated that an inhouse (DIY) or a commercial software approach could take up to a year to implement.

The Solution

Ravi had three choices for how to build and manage the new cloud-native platform. One, he could take a DIY approach, but he didn’t see the sense. “Kubernetes is extraordinarily complex, and though we have fantastic engineers in-house, they’re not specialists. Besides, we need them working on their apps, not Kubernetes infrastructure.”

Two, he could go with a partially managed solution from a hyperscaler. However, the cost and vendor lock-in ruled this out. “I wanted to have the freedom of choice to migrate to emerging technologies in the future, and I definitely didn’t want to be stuck with a particular vendor.”

The third choice was the charm. To accelerate the implementation of a cloud-native platform and to reduce operational costs, Ravi chose Platform9. Its fully-managed service and Kubernetes expertise freed Ravi from the burden of recruiting and retaining hard-to-find talent. It’s built and operates on an open-source stack. More importantly, Platform9 freed his team from day-to-day operational issues to focus on strategic innovations and speed getting revenue-generating apps to market.

Results

For Ravi, the results amounted to singular success: he achieved his strategy in six weeks, far ahead of schedule. His container layer is stable, reliable, and highly available. “Upgrades? I don’t have to stay awake, it’s a blue-green deployment without any interruption to DevOps or our production apps,” he says. As for scalability, “It’s delivery on demand, we just add more nodes and extend the cluster.”

Another benefit is the fact that alongside the significant increases in productivity, he’s relying on the same resources he started with. Adoption is increasing because it’s a proven case, success was defined and KPIs were met. And his team can extend the platform wherever they want to go.

Using Platform9 fully-managed services, Juniper met its business objectives and technical and operational requirements. Platform9 delivered flexible, scalable, on-demand cloud-native management for DevOps and CI/CD pipelines while helping developers speed application time-to-market.

Learn more at [Platform9.com!](https://platform9.com)