PLATFORM9

JUNIPER NETWORKS

Case study

Juniper Networks launches cloud-native platform in record time of 6 weeks

About Juniper Networks

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.

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)

Challenges

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.

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

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 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 in-house (DIY) or a commercial software approach could take up to a year to implement.

"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."

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

Solution

Ravi had three choices for how to build and manage the new cloud-native platform.

1. DIY approach, but he didn't find it practical because Kubernetes is very complex. While their in-house engineers are excellent, they're not specialists in this area. Plus, they need their engineers to focus on developing apps, not managing Kubernetes infrastructure.

2. He considered a partially managed solution from a hyperscaler, but the cost and vendor lock-in made this option unappealing. He wanted the freedom to migrate to emerging technologies in the future and didn't want to be stuck with a particular vendor.

3. The third choice proved ideal. To speed up cloud-native platform implementation and cut costs, Ravi chose Platform9. Its fully-managed service and Kubernetes expertise relieved him from hiring hard-to-find talent. Built on an open-source stack, Platform9 freed his team from daily operations, allowing them to focus on strategic innovations and quickly launch revenue-generating apps.

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Results

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

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 bluegreen 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.

> **"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."**

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.

Platform9 empowers enterprises with a faster, better, and more cost-effective way to go cloud native. Its fully automated container management and orchestration solution delivers cost control, resource reduction, and speed of application deployment. Its unique always-on assurance™ technology ensures 24/7 non-stop operations through remote monitoring, automated upgrades, and proactive problem resolution. Innovative enterprises like Juniper, Aeromexico, Mavenir, Rackspace and Cloudera achieve 4x faster time-to-market, up to 90% reduction in operational costs, and 99.9% uptime. Platform9 is an inclusive, globally distributed company backed by leading investors.

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