Verizon Chooses Rafay's Kubernetes as a Service Product to Power Application Edge Managed Kubernetes Service

Verizon Business (VB) is a division of Verizon Communications, a Fortune 50 company, that provides services and products for Verizon's business and government clients around the world. VB manages 500,000+ network, hosting and security devices for businesses globally across over 4k managed networks in over 150 countries. VB also has a team of 300+ professional services experts available to help businesses of all sizes meet their technology and business goals.

In response to customer needs, VB wanted to offer a managed service to help their customers deploy and operate containerized applications and Kubernetes across data centers, in the cloud and at the network's edge.

Verizon Business Identified an Opportunity with Kubernetes to Help Customers Innovate

In order to create amazing real-time customer experiences with incredibly fast network delivery speeds, VB customers were looking to create modern applications that take advantage of game changing technologies – namely 5G and Internet of things (IoT) – deployed at the edge of the network.

"With the rise of edge computing," Beth Cohen, Cloud Technology Strategist for Verizon Business says, "IT teams are looking for a means to deploy applications that allow them to co-manage the environment alongside a managed services provider (MSP) that automates the management of all the associated IT infrastructure."

However, the enormous complexity and overhead required to manage the deployment and full lifecycle of these edge applications distributed all over the world prevented businesses from taking advantage.

VERIZON BUSINESS STATISTICS

- Over 500,000 network, hosting and security devices managed for businesses worldwide
- More than 4,000 managed networks in over 150 countries
- 300+ professional services experts available to help businesses meet their networking goals

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Verizon decided to leverage Kubernetes technology to solve this fundamental problem. And to gain first-mover advantage in the market, VB wanted to rapidly create a platform-as-a-service (PaaS) offering with an automation framework for managing Kubernetes clusters and containerized application deployment. But to provide a managed service solution to the level that VB expects, they searched for a solution with the following requirements:

- Global visibility and administrative control for VB, but with full multi-tenancy & self-service capabilities for VB customers
- Zero-trust security architecture including role-based access control and auditing of all kubectl actions
- Scalability to handle thousands of VB customer accounts
- Highly automated cluster provisioning based on pre-packaged images optimized for uCPE hypervisor environments
- Ability to completely white-label the service offering

Furthermore, in order to meet the needs of VB enterprise customers, the following requirements were also a must-have:

- Kubernetes fleet-level scalability to handle hundreds of Kubernetes clusters under management
- Organize and manage clusters in projects providing multi-tenancy for VB customers to implement hard isolation boundaries across operating environments and teams

- Implement separation of duties between cluster and application administrators using finely-grained RBAC.
- Multi-cloud support to avoid cloud lock-in with ability to leverage the best of EKS in AWS, AKS in Azure, and GKE in GCP vs. a proprietary distro
- Enterprise integrations with CI/CD platforms, logging and monitoring, among others, to support existing DevOps workflows

Verizon Partners with Rafay Systems to Accelerate New Managed Kubernetes Service Offering

After investigating multiple vendors, VB selected Rafay's Kubernetes as a service (KaaS) product because it best met all of VB's requirements and allowed VB to bring a fully-functional solution to market in under 12 months.

Branded as VNS Application Edge, the new offering allowed VB customers to deploy applications without having to master all the nuances of networking environments. Instead, developers access an easy-to-use portal powered by Rafay's KaaS product that allows them to choose where they want to deploy an application, including an edge computing platform that Verizon already makes available using an instance of OpenStack deployed on a Kernel-based virtual machine.

"And they're not limited to network services," Cohen added. "They can be logistics, they can be IoT-type diagnostics, inventory…whatever. As long as it's a containerized application it can be deployed."

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> Aamir Hussain, SVP Chief Product Officer, Verizon Business

Rafay's KaaS product was built from day 1 with scalability to allow MSPs to administer thousands of customers, with each customer managing hundreds of clusters. The multi-tenant solution gives MSPs global visibility & administrative capability across their customers' fleets, while allowing each of their customers to manage their respective clusters. KaaS can be white-labeled with the MSP's branding so that the entire solution experience reinforces and differentiates the MSP.

Cohen further explains, "The big draw was that you could centralize the deployment and lifecycle management of the Kubernetes clusters, but also the applications as well."

Verizon Application Edge Ushers in New Era of Modern Applications & Customer Experiences

By partnering with Rafay, Verizon has brought an entirely new service offering to market in less than a year, created a new revenue stream for VB, and further differentiated itself as a leader in the MSP and telecommunications market.

With the VNS Application Edge platform, businesses can power cutting-"edge" applications at the edge of the network and thus create amazing real-time customer experiences with modern applications having fast delivery speeds and less latency.

"VNS Application Edge is key to enterprises evolving to deliver a new set of experiences and functionalities," said Aamir Hussain, SVP Chief Product Officer, Verizon Business. "With enterprises able to easily and rapidly deploy applications anywhere across multi-cloud and edge environments, enterprises can quickly adapt to meet market needs and further enhance the customer experience."