PLATFORM9

Case Study

Transportation company keeps trucks on the road with Platform9 Managed Kubernetes

Summary

The leading transportion company has the most extensive transportation network in North America, making it easy to provide dependable on-time delivery and faster transit times. Sustained by its 60 years of experience, the company developed the transportation knowledge that is relied on and trusted by clients in various industries.

The company uses complex software to manage route planning, freight tracking, customs processing, driver logs, and other tasks. They strive to create highly reliable software with high uptime because their company and customers rely on it.

> **“When a truck gets held up at the border due to a software issue, it’s more than just a delay. It might mean someone is losing money or causing someone to wait for essential medication - you just never know who that affects.”**

When this software fails, the client‘s trucks and operations may come to a halt, disrupting delivery schedules across multiple industries. The consequences of delayed shipments affect everything from grocery store inventory to pharmaceutical supply chains. Outages could cause trucks to be delayed at borders or warehouses, resulting in dissatisfied customers and a loss of revenue.

Problem

The company‘s infrastructure became complex and fragmented over time. They used a mix of legacy systems like AS/400 and newer technologies like Docker Swarm and VMware. The company was facing critical bottlenecks with this legacy infrastructure that impacted innovation, application rollouts, and reliability.

Lack of Innovation

The company's previous system was insufficient for the scale and speed of innovation. To manage containers across their fleet of trucks, warehouses, borders, and other locations, they required orchestration and automation capabilities.

Slow Application Rollouts

The company was unable to deliver new features quickly enough to remain competitive. There were many manual checks required across hosts and infrastructure to ensure upgrades or new releases did not fail. As a result, it took hours at best to roll out applications, slowing down the business.

Reliability Issues

The legacy systems caused frequent outages that would impact time-sensitive logistics operations. Trucks would get stuck at borders waiting for systems to recover causing delayed shipments, and more. Without modern orchestration, the company couldn't ensure high availability of its applications that the business depended on. Downtimes were far too common.

> **"Reliability was a significant issue, as container failures with Docker Swarm were common. Often, the setup didn't immediately trigger backup systems, leading to outages."**

With innovation constrained, applications took hours to release, and outages occured regularly. The client needed to modernize its infrastructure fast to keep trucks delivering on time across North America. The legacy systems were not going to cut it anymore.

Solution

The client's shift to Kubernetes in 2021, facilitated by Platform9, marked a turning point. The transition involved moving from Docker Swarm and upgrading from legacy systems to a Kubernetes-based architecture. This move not only streamlined their operations but also enabled them to harness the full potential of containerization and microservices.

Before implementing Platform9 Managed Kubernetes, the client's operational processes were heavily manual, particularly when it came to managing their Docker environments. The team had to meticulously ensure that each container was deployed to the appropriate Docker Swarm and that the chosen host had adequate resources, such as disk space and computing power.

This procedure required a detailed checklist for each deployment, which added layers of complexity even with automation tools such as Jenkins in place. Every step required validation, from system capacity checks to confirming the correct deployment environment, resulting in a time-consuming and cumbersome process.

The switch to Kubernetes greatly simplified these operations by automating manual taks using scripts and in-built orchestration capabilities. The shift resulted in a more efficient and smoother workflow.

This not only reduced the need for checklists but also lowered the possibility of human error, leading to improvement in overall system reliability and deployment efficiency. The automation and orchestration provided by Kubernetes allowed the company to focus on development rather than operational overhead. This resulted in a significant improvement in their deployment processes.

Platform9‘s proactive monitoring system allowed the support team to be aware of potential issues before they were submitted as tickets.

> **“When compared to other vendors I have worked with in the past, Platform9’s support is a night and day difference. When a critical issue happened, I received an email from support within minutes, offering help and suggesting we jump on a Zoom call. It was surprising because I had not even submitted a ticket yet.”**

This level of proactive support significantly reduced downtime and accelerated resolution time. The team reclaimed their valuable time by not wasting on detailing the issues. Instead, they discovered that Platform9‘s support team reached out proactively, armed with information about the issue at hand and eager to assist.

This streamlined communication process demonstrated the effectiveness of Platform9‘s solution, which improved operational efficiency and system reliability through timely and informed support interactions.

Results

The adoption of Platform9 by the leading transportation company has significantly enhanced its operational capabilities, marking a pivotal moment in its technological evolution. The following are the key improvements in efficiency, reliability, and innovation achieved through:

50% Kubernetes usage
Kubernetes now handles 30% of the business and is expected to reach 50% soon.

15-minute deployments
New features can be deployed in 15 minutes compared to previous manual processes that took at least an hour.

Improved innovation
Developers are empowered to experiment and deploy new features faster.

99.9% uptime
A reliable platform reduces downtime and ensures smooth logistics operations.

Increased speed and agility
Faster deployments, improved scalability, and automated workflows.

Reduced operational costs
Automation and streamlined processes improve efficiency.

> **“With Platform9 Kubernetes, the system is running smoothly and reliably. I almost feel like I am sitting in an air traffic control tower pretty much most of the day, and if I’m not doing that, I’m essentially going through making sure the pods are running and keeping track of logs.”**

Conclusion

The company's Kubernetes solution powered by Platform9 plays a critical role in transporting freight across North America. The platform simplifies the complexity and allows them to reliably deliver goods on time, from warehouses to stores to families‘ tables - everything from candy to groceries to life-saving pharmaceuticals. Relying on Kubernetes and Platform9, the company provides this vital logistics capability across industries that people depend on daily.

Their successful implementation of Platform9 and Kubernetes demonstrates the significant impact these technologies can have on modernizing IT infrastructure, improving operational efficiency, and driving business growth.

PLATFORM9

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.

Follow us on:

Headquarters: 84W Santa Clara St Suite 800, San Jose, CA 95113.
India office: 7th Floor, Smartworks M Agile Building, Pan Card Club Road, Baner Pune, 411045 Maharashtra, India.

Phone:
+1 650-898-7369

Website:
https://platform9.com

Email:
info@platform9.com