

A fast growing FinTech app accelerates time to market using Gravity

Summary

Gravity's Kubernetes Developer Platform enables this fast growing personal finance app to rapidly roll out features and deliver great customer experiences.

The top benefits that they realized include:

1. Migrate from a Virtual Machine based infrastructure to Containers and Kubernetes with **very minimal DevOps** efforts. Up to **70% reduction in DevOps efforts** that would have been otherwise spent on learning and operating Kubernetes
2. Deliver **great customer experience** by moving from Monthly/Weekly release cycles to continuous delivery of features
3. Up to **80% improved developer productivity** by offering a simplified self service Kubernetes experience to developers
4. **40% improved utilization** of resources through a combination of fine grained resource provisioning for containers and Auto Scaling to meet spikes in in traffic during campaigns

Background

A fast growing FinTech mobile app allows users to plan their finances better by helping them create financial goals for lifestyle spends such as Travel, Kids education, etc. It cultivates a habit of planning ahead for critical spends thereby avoiding debt traps such as Credit Cards.

In terms of infrastructure, the APIs powering their mobile app were deployed in the public Cloud using Virtual Machines. The infrastructure also leveraged managed services provided by the Cloud Provider such as managed relational databases, queues, encryption keys.

Challenges

The virtual machine based infrastructure was not meeting their speed of development cycles. Multiple environments had to be managed and rolling out new features required lots of planning. Creating disposable environments for testing purposes were also challenging and required lots of DevOps efforts.

The team had been evaluating migrating to containers and Kubernetes but did not have in-house expertise to migrate to Kubernetes and manage the Kubernetes infrastructure.

Being a fast growing startup, they also wanted to focus their energies on building new features and delivering great customer experiences and couldn't afford to spend precious engineering cycles on migrating to and managing Kubernetes.

Solution

The customer chose Gravity, a platform that provides a simplified Kubernetes experience to deploy workloads. Gravity runs on top of managed Kubernetes offerings of Cloud Providers and provides an experience where developers can deploy their applications without dealing with Kubernetes complexities.

- **Developer Friendly Kubernetes Experience:** Using Gravity, developers can manage the entire lifecycle of application deployments without knowing Kubernetes. These include Config & Secrets management, Continuous Deployments, Auto Scaling, Rolling & Canary deployments, Service Mesh configurations and management, TLS certificates, DNS management
- **1-Click Cloud Integration:** Gravity seamlessly integrates Kubernetes microservices and Cloud Services. In literally 1-click, developers can integrate cloud services with their microservices. Least privileged IAM permissions are automatically created and managed by Gravity allowing various microservices in a Kubernetes infrastructure to securely connect to Cloud Services.
- **Unified and Low Cost Observability:** Gravity's Unified Observability provides a dashboard where Logs, Metrics and Traces can be viewed in a single pane. This reduces the need to switch between multiple tools and waste precious time when troubleshooting production issues. Gravity's Unified Observability also operates directly on top of Cloud Storage there by dramatically reducing the cost of observability infrastructure

Results

The team was able to seamlessly migrate to Kubernetes without any significant engineering efforts and rapidly deliver new features to their customers.

Benefit	Description
Migration to Kubernetes with minimal DevOps Efforts	The team was able to containerize their existing microservices and deploy them to Kubernetes with very little DevOps efforts. Gravity's platform was up and running for them in under 6 hours and they were able to deploy their first workload in a matter of minutes thereafter.
Rapid Feature Delivery	Developers were able to deliver features blazing fast to their customers. Developers could quickly create dev/test environments and test new features by performing continuous deployments. They were also able to experiment with new features in production by using canary deployments.
Zero Kubernetes Learning Curve	Developers were able to use Gravity's purpose built self service experience that requires zero kubernetes knowledge. This allowed them to focus where it matters - deliver great customer experiences
No Kubernetes Operational Overhead	The team did not have to take care of operational aspects of running a Kubernetes infrastructure. Gravity manages the entire Kubernetes infrastructure including provisioning, bootstrapping all required components, Auto Scaling, Kubernetes version upgrades, High Availability, Security.

Conclusion

Using Gravity's Kubernetes Platform, the team was able to seamlessly migrate to Kubernetes with very minimal DevOps efforts. The team was able to rapidly roll out new features without dealing with Kubernetes complexities. By using Gravity's simplified and purpose built self service Kubernetes experience, they were able to focus on where it mattered the most - delivering great customer experiences.

