

Growing a Global Company

How monitoring helped facilitate Fintonic's expansion into South America and adoption of Kubernetes



Who is Fintonic?

Fintonic is a personal financial planning and mobile banking service that provides users with insurance, investments, and a proprietary credit score (Finscore). Founded in Spain, they have enjoyed massive growth to more than 700,000 users and are now focused on expanding their offerings into Chile and Mexico. As part of this expansion, they've chosen to migrate to a microservices architecture with Kubernetes to help increase development velocity.

Challenges from rapid growth

"When you grow quickly, the procedures and logistics of managing services in production become much more complex."

ROBERTO ANSUINI, DIRECTOR OF ENGINEERING

In 2018, Fintonic doubled the number of users on their platform, tripled their employees, began their expansion into Chile, and grew to six lines of business. In order to maintain their development velocity, their engineering team began their microservice migration (resulting in 60 microservices total) and adoption of Kubernetes. Their rapid growth and infrastructure expansion, however, created two problems:

- **Human:** As they grew quickly, onboarding new engineers became difficult with their incumbent monitoring tools.
- **Engineering:** They needed to adopt a stateless architecture with Kubernetes, Terraform, and Ansible to be able to replicate what they had built for Spain in Chile and Mexico.

As they worked to overcome these hurdles, they saw that their incumbent monitoring solutions made it difficult to drill into problems with their new architecture:

- Engineers needed to **manually correlate across multiple tools** for logs and infrastructure: a native cloud monitoring solution and a self-hosted solution. The increased context switching within their assembled solution made it difficult to troubleshoot issues impacting their system.
- Searching through logs required learning a specialized **query language**. However, as their platform and teams rapidly grew, developers needed access to simple solutions with a lower learning curve to solve their problems.
- Their team struggled with **alert coverage** and **prioritization** since their incumbent monitoring platforms were not able to target based on tags (e.g. **geographic market** and **environment**) and forced them to juggle threshold alerts between their infrastructure and log platforms.

“Configuring new alerts was incredibly tedious. It implied creating new config maps, associating them with Kubernetes logstash deployments, and had to be done for each environment.”

ROBERTO ANSUINI, DIRECTOR OF ENGINEERING

Due to these issues, they were unable to realize the expected acceleration from adopting Kubernetes and microservices in the first place. After a careful evaluation, Fintonic Engineering decided to adopt a platform that was easy to use, proven for Kubernetes, and that brought all their monitoring data together in one platform: Datadog. Through Datadog, they were able to finally realize the benefits of Kubernetes and expand into Mexico and Chile smoothly.

Fintonic’s hypergrowth demanded simplicity

As Fintonic tripled headcount, they needed to quickly ramp developers onto their team workflows. Using Datadog, the team was surprised by how quickly they could set up monitoring on their clusters, install integrations, and gain visibility into their systems.

“Ease of use was our biggest consideration for Datadog. We really like that within a few days, we already had dashboards with logs and metrics for the majority of our services. That way, we can just focus on re-architecting our platform... It was like day and night.”

LUIS FERNÁNDEZ, SYSTEMS ENGINEER

The Fintonic infrastructure team found the Datadog product so intuitive that they could fully onboard new team members to the platform within a few days. Today, they not only utilize Datadog for their own monitoring, but also to create dashboards for the six business teams within their organization, providing visibility to groups like their loans team, insurance team, and credit ratings team.

Unlocking Kubernetes with Datadog

Datadog’s seamless integration with Kubernetes automatically enabled monitoring on dimensions such as **pod**, **namespace**, and even line of business. This enables Fintonic to easily drill into the **pod**, **build**, or even **country** for any errant service they are managing. Then, from any container or metric, they can access relevant logs in one click to instantly debug performance issues. Overall, the Fintonic team found it much easier to hunt issues impacting short-lived services, hosts, and containers.

“We used to have no way to look at things proactively, but we now have insights from Datadog across all our communication such as Slack, emails, and VictorOps.”

ROBERTO ANSUINI, DIRECTOR OF ENGINEERING

With this newfound visibility, they were finally able to **alert on the metrics that matter**. Datadog tags allowed them to create scalable alerts that were specific to each **geographic market**. Furthermore, instead of alerting on only static thresholds, they could target specific application metrics, metric anomalies, or even log events. By using Datadog’s simple UI for alert creation, they now create alerts four times faster and can route them to the right individuals through multiple channels, rather than being limited to email as they had been previously.

Where Fintonic is today

Today, Fintonic has successfully completed the migration of their core services, and they are building 100% of their services for new markets on Kubernetes architecture. The simple setup and autodiscovery for Kubernetes allowed them to start using Datadog to troubleshoot across their infrastructure and logs. Its ease of use allowed developers to spend less time learning their monitoring platform and more time focusing on rearchitecting their services. Even after the successful migration, the engineering team at Fintonic continues to use Datadog every day, making it a part of their daily dialogue. “Datadog allowed us to correlate alerts, events, metrics, and logs to get ahead of issues,” says director of engineering Roberto Ansuini. “We love it.”