Money Forward | CUSTOMER CASE STUDY

Money for life

Fast-growing fintech startup accelerates infrastructure development in a robust cloud environment with HashiCorp Terraform Cloud.

About Money Forward

Established in May 2012, Money Forward, Inc., is a SaaS financial technology (fintech) company headquartered in Tokyo, Japan. The company develops and provides personal financial management (PFM) and SaaS for back office services. Twelve million consumers use the personal edition of Money Forward ME, and about 200,000 paying customers use Money Forward's corporate services*.
(*as of May 2022)

Money Forward, Inc., offers a wide variety of financial services, including personal finance management tools for individuals and B2B solutions for businesses and financial institutions. The company's B2C service, also called Money Forward, is the most popular personal finance management application in Japan and serves 12 million consumers.

Fundamentally, Money Forward's corporate view is that money is an essential tool for living—one that enables people to take care of themselves and their families, and helps them realize their dreams. The company's vision is to become a financial platform that can serve the needs of all customers.

To accomplish this, Money Forward has prioritized operating a tech-forward business that engages a large team dedicated to the development of new services. In fact, engineers and designers comprise approximately 40% of the company's employees.

#1 personal finance
management app in Japan

100+ Terraform Cloud modules
streamline digital infrastructure

Greatly improved security
practices for sensitive data

12M consumers

Standardized infrastructure
and significantly improved
productivity

Accelerated ability to deliver
value to customers

> For us, the best thing about implementing Terraform Cloud was that it became a common platform for our in-house development team. It has strict privilege controls that protect our customers' sensitive data, and we were able to start using it immediately.

MR. RIKI MAKITA
INFRASTRUCTURE SECTION, SERVICE PLATFORM DIVISION

Faster innovation requires a stronger process and tighter controls

To innovate at a rapid pace, Money Forward's development team relies on agile scrum methodology. Breaking projects down into small increments enables engineers to make updates continuously. This approach calls upon development teams to support the day-to-day operations of the software they build instead of handing that responsibility off to another area within the organization.

In order for this structure to work, it's important to delegate system privileges properly. This is where HashiCorp Terraform plays a key role at Money Forward. In 2017, Money Forward began using Terraform OSS to manage its Amazon Web Services (AWS) configurations. However, as the platform became widely adopted throughout the organization, the company encountered various operational issues.

For example, developers used different platform settings when running Terraform from their terminals. The lack of standardized procedures raised concerns and caused a decline in productivity.

At the same time, Money Forward faced mounting concerns about data security. The employees who managed cloud resources within Terraform OSS required high-level system privileges, which gave them access to sensitive data. Clearly, the company needed to implement tighter controls to protect sensitive customer data.

Recalling the days when Terraform use first started becoming ubiquitous across Money Forward, Mr. Riki Makita, infrastructure section, service platform division says, "We needed to create a common platform to manage our cloud operations."

Once the company became aware of the urgency for improved data security and more precise controls over system privileges, its leaders considered various solutions. Products that allow developers access to sensitive customer information had to be eliminated from the list of available options. Ultimately, Money Forward chose Terraform Cloud for its ease of implementation and integration with GitHub.

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Challenges

Lack of standardized operating procedures for the existing Terraform OSS platform

Potential risks surrounding the management of sensitive data and PII

> **"** Now that our entire company uses Terraform Cloud, our development process is more efficient."

MR. RIKI MAKITA
INFRASTRUCTURE SECTION, SERVICE PLATFORM DIVISION

Maximizing the benefits of infrastructure as code

Today, Money Forward uses Terraform Cloud with AWS and in conjunction with other on-premises systems, including Terraform OSS. The company currently operates 400 virtual machines (VMs) for AWS, 200 for its on-premises systems, and about 10 for its multi-tenant clusters. Developers use Kubernetes to build cloud-native apps and leverage about 100 Terraform Cloud modules to help streamline digital infrastructure.

It enabled us to reduce workloads when using Terraform OSS, which allowed developers to concentrate on coding," Makita says, praising the advantages of Terraform Cloud. "As Terraform became safer and easier for us to use, the platform usage increased throughout the company even more. I think the benefits of infrastructure as code—particularly the reproducibility and the ability to review changes —helped make our infrastructure management more robust," he adds.
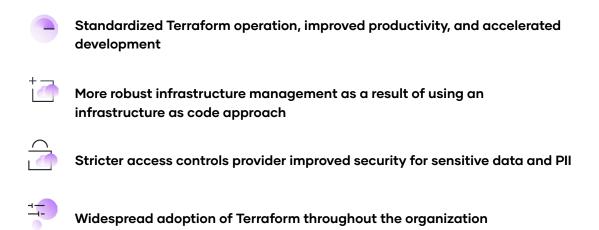
Because Money Forward had no previous standard operating procedures for Terraform OSS prior to adopting Terraform Cloud, each new use case required a great deal of thought and planning. Developers had to decide where Terraform was to run, how to handle sensitive data, how to manage virtual cloud servers (VCS), and how to review each Terraform use case individually.

Now, Money Forward uses Terraform OSS with Terraform Cloud's execution processes to establish standardized procedures for managing sensitive customer information. This greatly reduces the risk of a data leak.

"Terraform Cloud has enabled us to automate the operations we previously performed manually dozens of times each day. Now, our developers can spend time on more important tasks," says Makita. "It increased the speed at which we can develop services and accelerated our ability to deliver value to our customers. We also like that Terraform Cloud allows precise privilege management and easy state management for each workspace."

Outcomes

- Standardized Terraform operation, improved productivity, and accelerated development

- More robust infrastructure management as a result of using an infrastructure as code approach

- Stricter access controls provider improved security for sensitive data and PII

- Widespread adoption of Terraform throughout the organization

Solution

Money Forward uses HashiCorp Terraform Cloud to automate and rapidly deploy infrastructure as code to provide B2C and B2B financial products and services.

Money Forward Partner

Riki leads the infrastructure section and has been in charge of developing and operating the company's service platform since he joined. He has been contributing to boosting the agility of service development.

Mr. Riki Makita
Infrastructure Section,
Service Platform
Division

Technology Stack

- **Infrastructure:** AWS
- **Version Control:** Github
- **Provisioning:** HashiCorp Terraform Cloud and Terraform OSS
- **Orchestrator:** AWS EKS