Mizuho Securities delivers virtual servers faster with automated processes

MIZUHO

The IT Infrastructure Management Division of Mizuho Securities Co., Ltd. could no longer maintain its complex IT infrastructure or meet a growing number of user requests with a manual approach. The company decided to switch to a highly efficient, iterative workflow using Red Hat Ansible Automation Platform. After automating more than 90% of its virtual server provisioning processes, Mizuho reduced its average lead time to within 3 days. In addition, the company has gained a foundation for ongoing workflow optimization to promote expansion of automation across its infrastructure division.

Software

Red Hat® Ansible®
Automation Platform

Tokyo, Japan ●

Headquarters

Financial services

7,094 employees

Benefits

▶ Reduced virtual server provisioning lead times by 90-95%

▶ Improved infrastructure engineer productivity by automating routine, repetitive tasks

▶ Created foundation for automation-centric process design across the organization

"With Red Hat Ansible Automation Platform, we've been able to create and deliver services to our teams that were not even imagined a few years ago."

Mr. Takanori Ishimura
Director, IT Infrastructure Management Division,
IT/System Group, Mizuho Securities Co., Ltd.

Optimizing IT workflows to meet growing demand

To meet increasingly diverse customer requirements, Japanese brokerage firm Mizuho Securities Co., Ltd. has been expanding its services portfolio with high-quality, omnichannel solutions.

Mizuho's IT Infrastructure Management Division provides IT solutions to the company, including hardware and software for servers, networks, storage, computers, and telephony, to support end-to-end business needs. As demand for IT resources increased with business growth, tasks became increasingly inefficient for the division to complete. For example, tasks required to deliver virtual servers to internal users—such as creating a virtual machine, adding an IP address, setting up the operating system, and setting up a backup—were completed manually in sequence by engineers in multiple domains. As a result, depending on the workloads of the engineers and the number of virtual servers needed, the division had longer lead times that could be over a month

To deliver virtual servers at the speed of demand, Mizuho's IT division aimed to automate workflows and reconfigure its private cloud environment.

"Our team's core mission is to stabilize infrastructure operations to ensure Mizuho's users can access services with peace of mind at all times by providing IT resources within predictable timeframes," said Mr. Takanori Ishimura, Director, IT Infrastructure Management Division, Mizuho Securities Co., Ltd. "Complex procedures requiring multiple interactions between teams caused delays, resulting in declines in the entire division's service level and team performance."

Adopting a new server build approach with Red Hat

After discussing workflow challenges with each team's subject matter experts (SMEs) and researching the latest DevOps and automation approaches, Mizuho's IT division evaluated three solutions through proofs of concepts and decided on Red Hat Ansible Automation Platform.

Ansible Automation Platform provides a responsive, stable foundation for automation at scale. Its agentless technology helps the IT division manage complex deployments and eliminate manual tasks to work more productively.

"When we tested the server building process with Red Hat's automation solution, we saved about 93% of the time compared to a manual process," said Mr. Ishimura. "The main difference between Red Hat Ansible Automation Platform and the two other solutions was that Ansible is agentless. Being able to use it right away without having to install an agent on each of the thousands of servers means significant time and effort are saved."

The built-in automation controller (formerly Red Hat Ansible Tower) included in Ansible Automation Platform provides an easy-to-understand visual dashboard and RESTful application programming interface (API) for monitoring and scheduling automation jobs and workflows. The automation execution environment (formerly Red Hat Ansible Engine) supports workflow automation across Mizuho's server operating systems (OSes), cloud services, and more through hundreds of available code-based modules to help environments run more efficiently.

Mizuho has used Ansible Automation to automate more than 90% of its virtual server provisioning process.

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Mizuho's teams continue discussions to further their understanding of automation.

Shifting from manual work to efficient, automated workflows

Reduced server provisioning lead times by 90-95%

By integrating Ansible Automation Platform to one of its electronic application workflow systems, Mizuho's users can select the required virtual server specifications and OS versions from a catalog that generates Ansible Playbooks. By replacing manual provisioning processes with an approach that complete the automated tasks in a single stage, Mizuho reduced lead time per virtual server by 90-95%. Linux servers now take just 10 minutes to create, instead of 240 minutes, and Windows servers can be created in just 30 minutes, instead of around 300 minutes. In addition, up to 10 virtual machines (VMs) can be provisioned in parallel.

"By simplifying and automating the provisioning process, we can deliver the requested VMs with more predictable lead times, an improvement that is extremely beneficial for our users," said Mr. Ishimura.

Improved IT division productivity

Previously, building a virtual server required multiple engineers working on a range of specialties, including network, server, virtualization infrastructure, OS, Domain Name System (DNS), storage, and more. Automating manual workflows lets these engineers now focus on higher-priority tasks.

Mizuho's Ansible Playbooks are reusable and readable, even for staff with little programming experience. As a result, multiple tasks and jobs can be executed with less work effort or training investment.

"Our IT Infrastructure Management Division can potentially devote the time saved from automating a growing number of repetitive tasks to exploring further opportunities to expand automation, continuing improving our efficiency, and completing more creative tasks," said Mr. Ishimura.

Expanded engagement to support automation-centric work

By adopting an enterprise open source automation solution, Mizuho's IT division can combine Ansible Automation Platform with other tools, such as source code management systems, to create an infrastructure automation system beyond its initial virtual server automation project.

In addition, the company has established an automation promotion team for collaboration across its IT Infrastructure Management Division. It is also actively participating in local Red Hat Forum events, where Red Hat provides the latest information on open source technology and product roadmaps, as well as Ansible Night, an event for Ansible users to learn about the latest automation trends and best practices.

"I don't think it is enough to automate only our server and network workflows," said Mr. Ishimura. "To progressively benefit more from the technology, continuous effort is required. We have regular discussions about what automation capabilities are available and what kind of workflows should be automated," said Mr. Ishimura.

Moving on to the next phase of automation

Mizuho's IT Infrastructure Management Division plans to continue promoting—and demonstrating—the benefits of automation to other divisions within the larger Mizuho group.

"Continued expansion of automation will help us continue to improve our service quality and our teams' productivity, leading to cost efficiency," said Mr. Ishimura. "With Red Hat Ansible Automation Platform, we've been able to create and deliver services to our teams that were not even imagined a few years ago. We look forward to discovering what we can achieve with the right technology and approach."

About Mizuho Securities Co., Ltd.

Mizuho Securities Co., Ltd. works with other companies within the Mizuho Financial Group, such as banks and trusts, to meet the diverse financial needs of their customers.

For individual customers, Mizuho Securities provides high-level asset management consulting services aligned to their goals, objectives, and outlook. For corporate customers, Mizuho Securities provides bonds, share underwriting, M&A advisory, and structured finance services, as well as the highest level of investment banking services globally through specialized, customized financial solutions. Mizuho Securities imparts the proper investment information and management products for its customers' investment strategies through global sales and trading systems, using a comprehensive research system comprised of industry-leading analysts, strategists, and economists.

About Red Hat Innovators in the Open

Innovation is the core of open source. Red Hat customers use open source technologies to change not only their own organizations, but also entire industries and markets. Red Hat Innovators in the Open proudly showcases how our customers use enterprise open source solutions to solve their toughest business challenges. Want to share your story? Learn more.

About Red Hat

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