

TOKAI Group centralizes web applications with Red Hat OpenShift Dedicated



Software and services

Red Hat® OpenShift®
Dedicated

The TOKAI Group operates a variety of businesses throughout Japan, including energy, information communication (ICT), construction, real estate, and more. As it diversified, the group's sales promotion applications environment became increasingly complex. To enhance security and centralize management, the group decided to create a unified, container-based development and operations environment. With Red Hat OpenShift Dedicated, a managed service container platform, TOKAI Group has gained reliable public cloud container capabilities that make development and operation more efficient and secure. The group plans to expand its use of the platform to new business units to continue strengthening its competitive edge.



Utility, home, and life services

4,071 employees
163 offices

“Red Hat is closely involved in Kubernetes development, rather than just using it in their products. We trust Red Hat to manage our infrastructure.”

Tatsuya Kurebayashi

Member of Development Department, Group ICT Development, System Solutions Division, TOKAI Communications Corporation

Benefits

- Reduced resource provisioning time from 5 days to 1 hour
- Improved governance with automated security patching and updates
- Saved 50% in operational costs compared to building equivalent environment



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“Red Hat OpenShift Dedicated also offers flexibility that gives us confidence in its reliability for any type of content, so we don’t need to choose only a few web applications to be containerized. That compatibility has streamlined migration to our new, centralized container platform.”

Tatsuya Kurebayashi
Member Of Development
Department, Group ICT Development,
System Solutions Division, TOKAI
Communications Corporation

Centralizing application development and operation

Since its beginning as a gas utility business in 1950, the TOKAI Group has diversified its business focus to include a variety of products and services, including internet, cable, housing equipment, life services, and more. The group has also expanded operations nationwide, growing to 2.88 million customers.

To prepare for continued growth and expansion, the group has focused on adopting its ABCIR+S concept of business enhancement through emerging technology, including artificial intelligence (AI), big data, cloud computing, the Internet of Things (IoT), robotics, and smartphones. These keys for digital transformation will improve customer interactions, support new business development, and improve operational efficiency.

However, as the group diversified its business, its web presence rapidly expanded, leading to complex back-end operations. In addition, many of the group’s company created their promotional pages for new products and services using external hosting services outside of the group’s datacenters in Shizuoka and Okayama Prefectures.

“It’s relatively easy for employees with some IT knowledge to create web applications quickly to meet demand using an external hosting service. However, sometimes employees leave the team and are no longer able to manage those apps. A website without an administrator is a potential target for cyber-attacks, posing high risk to brand reputation and data security,” said Tatsuya Kurebayashi, a member of the Development Department, Group ICT Development, System Solutions Division, at TOKAI Communications Corporation.

To simplify management of web assets and improve IT security, the TOKAI Group sought to create a centralized application development and operation environment using container technology.

“Everything on containers is so fast,” said Mr. Kurebayashi. “When we first tested the technology, it seemed like you could build what you wanted with just a few commands. We’ve been waiting for the chance to use this technology.”

Adopting a managed container platform

The TOKAI Group tested several container technology solutions, including Docker and the Kubernetes orchestration tool, before deciding to use Red Hat OpenShift. The company found that Kubernetes was difficult to use and lacked documentation. In comparison, Red Hat’s container products offered enterprise features, such as automated load balancing and status checks, supported by Red Hat technical experts.

Red Hat OpenShift Dedicated is a high-availability, single-tenant managed service container platform that supports use of containers in an Amazon Web Services (AWS) public cloud environment. All software settings and updates are managed by Red Hat.

“If you use containers, your applications and execution environment are packaged together, making development much easier. But if you want to use containers on premise, you will continue to need people to manage the infrastructure,” said Mr. Kurebayashi. “We decided to adopt the OpenShift Dedicated managed service to pursue maximal efficiency in both development and operations.”

The TOKAI Group has centralized applications for approximately 20 websites without current administrators and plans to gradually add more websites. The group then plans to add several hundred websites that currently do not have management issues, as well as business-critical applications.



Enhancing application development and management

Reduced provisioning time from 5 days to 1 hour

With its managed container platform, resource provisioning times have been shortened from at least 5 days to around 1 hour. OpenShift Dedicated automates many of the processes for creating and deploying a container application to production. In addition, the group's developers can continue to work while resources are being provisioned. As a result of containerizing applications, less time is required before an application is migrated and ready to run compared to the group's previous environment.

"OpenShift Dedicated also offers flexibility that gives us confidence in its reliability for any type of content, so we don't need to choose only a few web applications to be containerized. That compatibility has streamlined migration to our new, centralized container platform," said Mr. Kurebayashi.

Improved governance with automated patching and updates

One of the key benefits TOKAI Group has experienced from moving to Red Hat OpenShift Dedicated is automated management of security patching and administration. Multiple servers can be upgraded simultaneously without stopping an application, keeping the container environment updated and highly available.

This shift to a managed services platform has helped the TOKAI Group improve governance across its brands' web properties. By removing cyberattack vulnerability from unmanaged websites and unifying management, the group can protect its brand image and mitigate security threats.

"The primary purpose of this centralization project was to improve security. Red Hat considers security throughout its portfolio, whether Red Hat Enterprise Linux, its container images, or Red Hat OpenShift," said Mr. Kurebayashi. "When a Kubernetes vulnerability was identified, we were amazed that the patch was applied at the same time as the version update. Red Hat is closely involved in Kubernetes development, rather than just using it in their products. We trust Red Hat to manage our infrastructure."

Saved 50% in operational costs

Using a managed service platform from Red Hat has also helped the group reduce the time needed to manage its web presence, creating a foundation for future cost savings. Compared to the potential cost of building an equivalent environment in OKD—a community distribution of Kubernetes—running Red Hat OpenShift Dedicated on AWS has helped the group save 50% in operational costs.

“We would not have been able to create the same system in AWS by ourselves for the same cost. We believe that unification of websites from various environments will lead to optimization of overall costs,” said Mr. Kurebayashi.

Promoting container adoption to new business units

After establishing its container platform, the TOKAI Group plans to continue optimizing resource allocation for its businesses.

“For instance, our cable company currently temporarily increases server capacity for real-time content distribution. Using containers, we can respond to demand without additional cost by skillfully allocating additional resources at a given time,” said Mr. Kurebayashi. “In the long term, we would like to achieve the capability to flexibly reallocate resources across the group to achieve an optimal balance as a whole.”

The group continues to work with Red Hat technology to support its business transformation efforts and find new uses for its container technology, including considering Red Hat OpenShift Container Platform, Red Hat Middleware, and Red Hat Ansible Automation for a core system migration project.

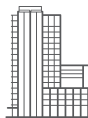
“We cannot go forward using the same legacy technology,” said Mr. Kurebayashi. “We are looking forward to having Red Hat, which continues to create open source innovation, as our trusted advisor.”

About TOKAI Holdings Corporation

Since starting its gas utility business in 1950, the TOKAI Group has diversified to provide a variety of products and services, such as liquid petroleum (LP) gas, internet, cable television, water delivery, housing equipment, security, insurance, bridal services, senior care, comprehensive renovation, and more. TOKAI Group’s parent company, TOKAI Holdings Corporation, has 24 subsidiaries, including TOKAI Corporation, TOKAI Communications Corporation, TOKAI Cable Network Corporation, and TOKAI Gas Corporation.

About Red Hat

Red Hat is the world’s leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers integrate new and existing IT applications, develop cloud-native applications, standardize on our industry-leading operating system, and automate, secure, and manage complex environments. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500. As a strategic partner to cloud providers, system integrators, application vendors, customers, and open source communities, Red Hat can help organizations prepare for the digital future.



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North America
1 888 REDHAT1
www.redhat.com

**Europe, Middle East,
and Africa**
00800 7334 2835
europe@redhat.com

Asia Pacific
+65 6490 4200
apac@redhat.com

Latin America
+54 11 4329 7300
info-latam@redhat.com