



# Rakuten Card Smoothly Transition to Cloud-Native Architecture with Payara Server Enterprise

In late 2017, Rakuten Card needed a reliable application server for its customer facing web applications. It found its best solution in Payara Server Enterprise: migrating in October 2017 for regular updates, improved support and services helping them in achieving 99.9999% middleware availability. Two years later, Rakuten Card moved to a cloud-native architecture. It found Payara's low maintenance technology and cloud-orientated features ensured a smooth transition with a stable version and flawless successful deployment.

## Challenges: The Initial Move to Payara Server

Rakuten Card faced difficulties with its previous application server's critical pending CVE bugs, memory leaks and sporadic errors without proper explanation in a stack trace. The expensive commercial support was too slow, and patches released introduced worsened security holes. Rakuten Card were looking for a support team who were well versed in Java based frameworks and could communicate in technical terminology while resolving issues.

Moving to Payara Server Enterprise solved these issues, by providing monthly releases, bug fixes and patches, security improvements, and support directly from engineers within the Jakarta EE (Java EE) community. Responses were quick and the Payara Team could communicate in Japanese - which was vital for Rakuten Card.

## Becoming Cloud-Native

In October 2019, Rakuten Card decided to move from a bare-metal server - a physical server dedicated to a single tenant - to a cloud-native architecture. It made deployment of its public web application 100% cloud-native in less than a year.

The biggest change when moving from a monolithic environment was having to reconfigure Java options for the container framework. For example, Java's Garbage Collections logs, revealing potential improvements to the code, needed to be disabled completely, as the cloud-based monitoring would take care of stuck threads and containers

## Solution: How Payara Enterprise helped Rakuten Card Migrate to a Container Platform

Payara Platform is designed for seamless integration with cloud services and tools, to help developers manage and automate operation. Both Payara Server Enterprise and Payara Micro Enterprise help in creating containers with a lower footprint. Rakuten Card found this made cloud-native deployment low maintenance and highly portable.

The Payara Platform works the same across any environment, with Rakuten Card praising the fact that no additional work was needed on the application code in order to migrate to a container platform.

## Rakuten Card

### About Rakuten Card

Established as its own credit card brand in 2005, Rakuten Card Co. Ltd. is a Japanese credit card company formerly known as Rakuten Credit Inc. It has been recognised for achieving the number one credit card shopping gross transaction value in Japan and hit the milestone of 20 million credit card members in June 2020.

### Industry:

- Financial
- Banking Service

**Location:** Tokyo, Japan

### Software & Services:

- Payara Server Enterprise
- Java EE/Jakarta EE

Another key security benefit was the fact that the Payara Platform integrates with Docker, offering a standard set of Docker images through the support repository to build signed container images.

## Results

In the three years since moving to Payara Server Enterprise, Rakuten Card hasn't faced a single production issue. All queries are resolved and thoroughly followed-up before an issue is generated. This is a huge improvement compared to its previous provider, with whom it faced an issue at least once a month.

Rakuten Card has also not had a single service stop since migrating, which used to be a regular occurrence.

**Arshal Ameen**, Senior Architect, Rakuten Credit Card, shared Rakuten's experience: *"Payara is the de-facto middleware at Rakuten Card. We've found it wonderful to use, even for new hires - with Payara leveraging developers' existing skill sets so no retraining is required."*

99.9999% middleware availability achieved

Rakuten Card found that Payara Server Enterprise minimised business impact with no application server issues - including during the cloud migration and after becoming 100% cloud-native. Rakuten Card experienced additional benefits using Payara Server Enterprise, including:

- Reduced resource footprint
- Faster deployment
- Better performance
- Easily scalable architecture
- Great reliability

Through code samples and demos provided by the Payara Team, the Rakuten Card team improved their knowledge on best practices for usage and implementation.

## Rakuten Card

### Payara Platform Enterprise Includes:

- Access to Customer Hub with unlimited tickets
- Full access to our growing customer knowledge base
- 10-year software lifecycle
- Access to monthly releases
- Personalised fixes
- On-boarding assistance
- Support provided directly by engineers in a variety of languages
- Fully supported production binaries
- OpenJDK support
- Java EE / Jakarta EE



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