

## **Gangnam GU Migrates to Resin Pro and Achieves 99.99% Uptime and a Cost Savings of 55%**

“We used JEUS (domestic app server in Korea) in our homepage system until 2014, but unknown errors occurred frequently while processing web services. So, we needed an alternative WAS solution that worked reliably for nonstop operations. We chose Resin after much consideration and now we are running well without any problems. We are very satisfied with the stability and reliability of Resin.”

-Tomas, Manager IT Department, Gangnam GU Office in Seoul

### **Solution**

Migrate from JEUS to Resin Pro

### **Industry**

Government

### **Product**

Resin Professional WEB/WAS

### **Country**

South Korea

### **Summary**

Gangnam-GU Office is one of the local governments in Seoul, Korea. It is the most creative and innovative city in all areas including economy, culture, tourism, welfare, education, environment, traffic, administration, and security.

The Gangnam-GU Office has been operating complex systems including home pages, client portals and the Onnara System, which includes administrative systems closely connected to the central government computing network.

The Gangnam-GU Office web services are mission critical because millions of people use it every day as administrative duties closely related to their lives and health.

## Background

Gangnam-GU Office had used JEUS (Korean app server) for several years. However, their sites and web apps had been suffering from unknown frequent service errors that incurred multiple restarts every day for fault recovery.

For this reason, the engineers at Gangnam-GU started to examine alternatives for Java solutions. Among the requirements for replacing their stack, Gangnam-GU wanted to ensure that their new stack was able to provide the following features:

- Provide detailed analysis of their application environment and health
- Reduce dependencies on as many third party libraries as possible
- Be understandable and configurable by everyone involved from devops to engineers
- Clustering – the app needed multiple instances in case of hardware failure

After much consideration, Resin was chosen as the core of the stack. In their testing, developers appreciated that as a platform, Resin did not rely upon 3rd party libraries for core processing and performance.

Resin provided detailed insight into Gangnam-GU's application, providing them with exact code locations that were causing problems within their application

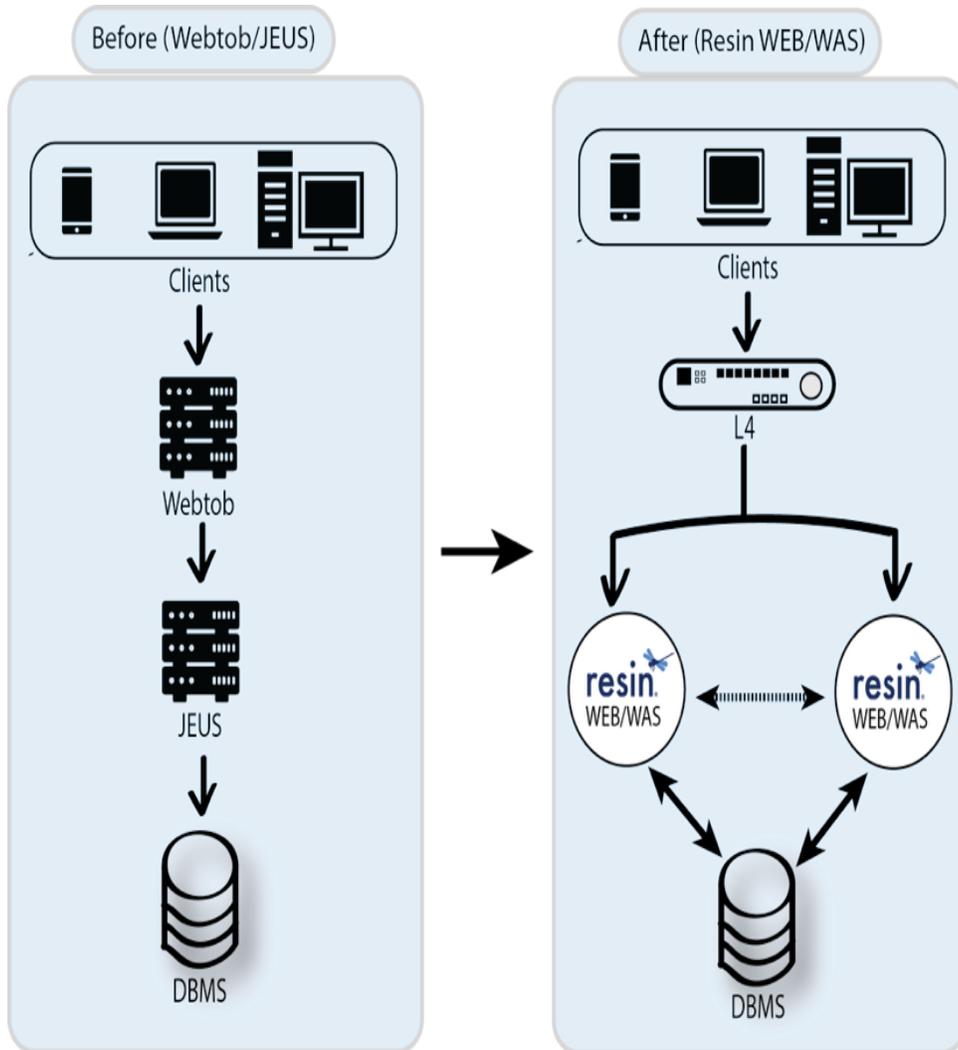
## Clustering Web & App Servers Within the Same Physical Machines

Before migrating to Resin, Gangnam-GU engineers were forced to install web servers and application servers on separate physical machines due to the demand of resources within Webtop and JEUS. This setup increased their IT budget and introduced another possible point of failure between the two servers.

After Gangnam-GU developers tested their apps in same application environment, they replaced JEUS with Resin Pro.

With the cost savings from their hardware reduction, engineers were able to introduce a hardware load balancer for SSL offloading in front of their Resin deployment

Below is how Gingham GU engineers were able to cluster web and app servers within the same physical machines, taking advantage of Resin features.



After improving the state of their application and replicating their original setup, engineers decided to take advantage of Resin's powerful yet simple clustering. The original single server setup scaled to a clustered system with minimal configuration changes. Because of this, end users of the application were no longer impacted by downed hardware. Additionally, application-processing times were greatly improved.

## **Solution**

As a result, the Gangnam-GU office improved system errors and has been very satisfied with the stability and reliability of Resin. After replacing the Webtop/JEUS setup with Resin Pro, the IT team estimated a TCO reduction of 55%.

The results and benefits of the migration are:

- 99.99 uptime for millions of daily users
- Increased application stability
- 55% cost savings
- Decreased security vulnerabilities by reducing 3rd party libraries
- Faster application processing in the clustered environment

## **About Caucho Technology**

Millions of sites worldwide successfully use Resin as the fastest and most reliable Java EE integrated solution for web applications. For almost twenty years, Caucho Resin has become recognized for high performance, security and reliability with 99.99% uptime reported by the majority of our customers, many of them Fortune 1000 companies and governments who have mission critical performance and security requirements. Caucho was founded in 1998 and is based in San Diego, California.

For more information please visit [www.caucho.com](http://www.caucho.com)

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