

Using the Jennifer APM solution as a performance management tool for Resin web application server

“Using JENNIFER, we reduced the time spent monitoring our enterprise application (RESIN) by 50% and time spent identifying and resolving the performance problem by 70%. What used to take hours or days now only takes minutes.”

Young-Chul Choi, Lead Development Engineer, Ticket Link

Solution

Jennifer Application Performance Management

Product

Resin® Web Application Server

Industry

Business Services

Country

Korea

Summary

Monitor Resin production environments in real-time and manage application performance with Jennifer APM (application performance management) solution.

Solution

Jennifer provides efficient real-time system monitoring, practical performance problem diagnosis and troubleshooting, and effective performance management for Resin WAS.

Customer: Ticket Link (<http://www.ticketlink.co.kr>)

Ticket Link is the #1 ticket sales and distribution company based in South Korea, which offers tickets sales and reservation services to movie theaters, sporting events, concerts, exhibitions, and performances of all varieties. Ticket Link offers comprehensive online ticket sales and services using channels such as websites, call centers, and mobile phone services in real-time bases. Ticket Link reported annual revenue of more than 10 million U.S. dollars in 2007 and provides services to more than 1,300 visitors daily.

Engineering Problems

➤ Inefficiency during production environment monitoring

Ticket Link has six web services running on 40 Resin instances that provide variety of services to their web site visitors. Ticket Link has chosen Caucho Resin for its web infrastructure because of its high performance and ability to scale. Ticket Link previously did not have any APM (application performance management) solution for its 40 Resin instances. Instead, two system administrators spent significant portion of their work hours monitoring the services in the Resin production environment.

Wong Park, Systems Administrator of Ticket Link, observed “two system administrators spent about 45% of their job monitoring the status of our web services, which left little time and resources to work on other business critical tasks.” Park and his colleagues were frustrated by the difficulty involved in monitoring their production environment.

➤ Customer dissatisfaction and customer retention

Absence of a comprehensive monitoring solution also caused delays in identifying and resolving application performance problems. An internal study revealed that

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web service delays and performance problems resulted in significant customer dissatisfaction because of the time sensitive nature of ticket sales business. The majority of customers who experienced delays or problems during the ticket purchasing experience quickly abandoned using Ticket Link and left to a competing ticket vendor to purchase their tickets, resulting in loss of revenue and customers.

➤ System Downtime caused by sudden fluctuations of visitors and throughput

Managing system capacity is a very important but difficult task for Ticket Link because the ticket demand for an event cannot be accurately predicted and also the number of visitors heavily depends on event release dates. Additionally, new services are often launched in the production environment without passing all proper quality testing procedures due to the time sensitive nature of ticket sales. To make problems worse, a sudden fluctuation in visitors or throughput often leads to application performance problems or system crashes during the time most critical for ticket sales, resulting in significant loss of customers and revenue.

Solution

Ticket Link considered implementing an APM (application performance management) solution for Resin production monitoring, speedy discovery, resolution of application performance problems and preventative measure against system downtime. Ticket Link took advantage of many of the features in the Jennifer APM solution including:

- Real-time monitoring capability with problem determination and alerts
- Comprehensive monitoring capability that allows Ticket Link to manage all Resin instances via one easy to view dashboard
- PLC (peak load control) feature that redirects overflowing service requests

After reviewing many APM solutions, Ticket Link chose Jennifer since it included all the features they required and Jennifer was easy to implement and support on Caucho's Resin application server.

Result - Implementing Jennifer

Using Jennifer's real-time monitoring capability, intuitive dashboard, and problem determination capability, Ticket Link reduced the amount of time spent monitoring web services by up to 50%, freeing up considerable engineering resources. By integrating Jennifer with Resin, Ticket Link was able to take full advantage of Resin's high-performance features.

PLC (peak load control) feature was used to prevent the system from "hanging" or crashing due to sudden influx of visitors and service requests beyond system capacity, rerouting visitors to alternate ticket sales channels, thereby reducing customer dissatisfaction and retaining revenue.

Ticket Link's Strategic Marketing Manager, Young Oh, observed "The business impact of system downtime was significant for Ticket Link due to the real-time nature of ticket sales business. Use of Jennifer's real-time monitoring and problem diagnosis features ensured system stability and minimized the business impact caused by service performance problem, thus it significantly contributed to the seamless operation of our online services and resulted in increased customer satisfaction."

Ticket Link's Lead Development Engineer, Young Choi, added "Relying on logs to identify problem took a long time and caused confusion between system administration and development. Root cause analysis sometimes took hour or even days. Using Jennifer's X-view (transaction analysis tool), finding and sharing the transaction view and profiling data of the performance problem was done with just a few click of the mouse."

The choice to use the Jennifer APM solution allowed clear communication between system administration and development team, fostering team work and reducing time spent resolving issues and bottlenecks by up to 70%.

Resin gave Ticket Link a strong foundation on which to build their application. Known for its speed and reliability, Resin was able to stand up to the challenges of a rapidly changing environment. This stability gave Ticket Link the ability to use Jennifer to track down problems in the application and not to worry about potential bugs or performance problems in the application server.

Resin reduced the number of variables that Ticket Link administrators had to evaluate and made Jennifer an ideal solution for their APM needs because of the two products' compatibility and synergy.

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About JenniferSoft

JenniferSoft develops technology for system architecture development and performance monitoring, error determination and system tuning based on "Performance Theory." It has acquired more than 170 reference customers and has solidified its position as #1 Application Performance Management solution provider in Korea. For more information about Jennifer APM, please go to www.jennifersoft.com.

About Caucho Technology

Caucho Technology specializes in the development and distribution of Resin[®], an Enterprise Web Application Server (WAS) solution. Resin serves more than 9,000 customers world wide including Fortune 1000 companies and government organizations. Caucho is a Sun Microsystems Java EE licensee whose industry leading products include Resin application server, Hessian web services and Quercus Java-PHP solutions. Caucho was founded in 1998 and is based in La Jolla, California. For more information about Resin, please go to www.caucho.com.