A JENNIFER Case Study for Credit Card Company A (IBM WebSphere for z/OS)

BUSINESS

Company A is a subsidiary of large finance holding company, which its main business is consumer credit and debit cards. The Company A is a leading consumer credit provider in Korea and 7th largest in the world.

- **Number of customers** : 13.1 million members
- **Asset** : $17 billion
- **Capital** : $626.8 million

ENGINEERING PROBLEM AND SOLUTION

Needs for the solution to monitor the IBM WebSphere for z/OS in real-time

The major business application and tasks are performed on the IBM WebSphere z/OS, thus the system administration team's main task is to monitor and manage the business applications in real-time to ensure system health and performance.

Ki Duk Na, manager of System Administration dept, stressed the need for a real-time application performance monitoring solution. Na stated that "speediness of credit card transaction is critical because of the behavioral pattern of the credit card customers. If the credit card transaction fails or transaction time is delayed, the probability of customers abandoning the credit card transaction rises significantly; customer chooses another method of payment or cancels the transaction all together, resulting in loss of customer and their business. Thus, company A must monitor business critical system in real-time in order to proactively deal with application performance problems as they are detected.

Needs for establishing the insightful error determination/resolution process

Change in Company A's IT system management policy has resulting in expanded definition of application performance problem, from just "failed transaction" to also include "delayed transaction time" and "intermittent service failure". This policy change has caused the root-cause determination and problem analysis to become a critical part of system management since the finding out why the performance problem has occurred has become as important as resolving the problem itself. Finding out the root-cause of the problem was not easy task. Na explained that the IBM WebSphere on z/OS that performs most of business critical tasks was extremely difficult analyze, earning the nickname 'BlackBox' amongst the IT staff.

Mr. Na said "determining root-cause of the performance problem became very time consuming. We needed a solution that can help us discover and document the problem and aid in creating resolution.

Needs for the comprehensive performance management from development to operation stage

As new businesses are created and competing companies merged through M&A deals, integrating new or foreign systems into the existing system occurred each time. Each time the system integration is performed, many of applications had been changed or redeveloped and performance of newly integrated systems re-measured. A performance management solution that can be used in multiple stages of application life-cycle, from development to operation, became necessary.

The performance degradation problem in the system shows up during the stress test or operation stage even after successfully passing many tests during the development stage. These problems typically show up as delayed service time. The performance problems also often lead to finger-pointing and hurt feelings between the SI managers and the system developers since the root-cause of the problems are often unknown and difficult to determine.

SOLUTION

Members of System administration team have for a long time considered adopting an application performance monitoring solution that can help the IT staff manage and improve the application performance of the business critical applications and services.
Since most business critical applications perform transactions that are on CICS on WebSphere z/OS, the APM solution of choice must be able to clearly monitor the transaction which starts from web request and end in external transaction through CICS in WebSphere z/OS. The APM solution must fully support for IBM WebSphere running on z/OS, support real-time monitoring for the other operating systems and web application server types, and provide robust root-cause analysis and resolution features for performance problems and errors.

To find the best APM solution, the team used BMT (Benchmark Test) and examined several APM (Application Performance Management) solutions including JENNIFER. In the test, most solutions were not installed successfully, or even when installed, that solutions had limited capabilities. After BMT, Company A selected the JENNIFER because it was easy to install, received the highest score in BMT and had the best reputation amongst the local APM solutions.
Duk Hyun Kim, IT Manager stated that "using JENNIFER saved a lot of time and headache establishing real-time monitoring infrastructure because JENNIER installation and configuration process is simple and easy."
Kim also stated said that "when the performance problem is detected most of the other APM solutions simply analyze the problem using log data or system commands alone. However, JENNIFER allows user to detect and analyze the performance error by providing the detailed profiling data related to the error.
After adopting JENNIFER, the company has reduced the number of system errors by 70% and reduced the time spent resolving the errors by 80%.

BENEFITS

- Establish insightful transaction monitoring process in real-time for the IBM WebSphere for z/OS
- Prevent customer and revenue loss by minimizing system downtime and service delay
- Maximize system availability by establishing the performance problem management process
- Offer pleasant online service experience to the customer, increasing customer satisfaction
- Provide a standard for the system performance management when it integrating new systems