

IDG Case Study

Prudential Corporation Asia APM Case Study

Prudential Corporation Asia takes customer service up to the next level with JENNIFER APM

The basic management principle of Prudential Corporation Asia can be called 'the philosophy of listening' where the company is always listening to its customers' needs, even those that may just be a glimmer deep within. The company believes only through careful and sensitive listening can they understand what the customers really need, and only through the thorough understanding of those needs can the company provide the needed products and services. This applies to the IT systems as well. Only through the proper understanding of the problem and prompt solutions can the application deliver true performance and results. This year marks the 5th year since the introduction in 2007 of JENNIFER APM at Prudential Corporation Asia. Having taken 3 months from system setup to operation, APM is now used throughout the WAS system, including customer service and internal management systems. Through JenniferSoft's APM that allows digging deep inside the system in real-time, Prudential Corporation Asia was able to improve its internal and external customer services up to the next level.

JENNIFER Benefits

Application Performance Management (APM) is a component that is required to make the IT services in your organization transparent in terms of cost and usability. Today's APM solution must not only provide basic system resource monitoring data and business data as the traditional system Management solutions, but it must also be able to use these data effectively in performance troubleshooting as well as business strategy and capacity planning, effectively lowering the TCO (Total Cost of Operation) of the enterprise web system.

Minimize System Downtime

JENNIFER Smart UI allows administrator to identify, analyze and create solution to performance problem all at once in record speed, thus minimizing system downtime.

Identify and Resolve Performance Bottleneck

JENNIFER provides performance information for individual service transaction and it directly links them to detailed service transaction information, which makes it an ideal solution for identifying and resolving performance bottlenecks.

Quantified System Performance Data

JENNIFER collects and standardizes various types of application performance and business data such as number of visitors, number of concurrent users, system resource usage rate, etc... These quantified evidentiary data are then used to generate periodic and summary reports, capacity analysis for planning system expansion, historical trending, and application tuning.

Integrated System Performance Management

JENNIFER's powerful UI and flexible framework allows administrator to use JENNIFER to monitor systems outside of java application server.

JENNIFER's very own "Adaptive Framework" technology bring in performance data from TUXEDO/CICS, database, web server, and TPM, and others systems, and manage them all in one solution, providing End-to-End monitoring capability to IT teams.

High Scalability, Low Overhead

JENNIFER lowers the overall overhead by using an efficient data collection system, compact protocol for data transfer, and controllable profiling level of service transaction information. Combining these features together, JENNIFER imposes minimal overhead to the monitored application servers while providing high-level of scalability.

Minimizing TCO

Monitoring and managing application performance can be a costly process which consumes huge amount of resources in terms of labor hours and money spent purchasing variety of dev tools, profiling tools, and testing tools. Stop wasting money with these ineffective tools! JENNIFER has been specifically designed for troubleshooting application performance problem and progressively improving application performance and JENNIFER can do these things fast!

Satisfactory Customer Service

At the end of the day, goal of APM is to provide satisfactory customer service. Use JENNIFER to provide peerless service to customers and by minimizing system downtime, and resolving application performance problem quickly.

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To survive in an ultra-competitive environment, companies must be equipped with information systems that can handle large amounts of data within the time required by their users, and they must be able to provide the data users need as quickly as possible. However, outdated information systems used by the majority of the companies were not able to satisfy these requirements effectively.

Accordingly, companies settled for meeting those requirements only partially through continuous system upgrades or by building new next-generation information systems. SOA was adopted to provide consistent, effective, responsive and standardized applications across the company as well as for the ability to reuse existing assets. This rationale was a factor contributing to the boom during the last few years in building the next generation information systems that started in the financial sector.

Prudential Corporation Asia, launched in South Korea in 2002, responded to quickly changing needs of its customers by implementing IBM's WebSphere in 2005.

In an SOA environment, application business logic is designed as an independent service and exposed components are distributed. Accordingly, the architecture became extremely flexible, but the resulting complexity of the system rendered early responses to performance problems and root cause analysis difficult.

Complex systems made APM a must

Many companies required detailed monitoring of application components related to their business services. For performance faults that manifest themselves in a variety of ways, IT managers wanted realistic numbers and results rather than a direct root cause analysis, application developers wanted code bug detection to be automatic, and system administrators wanted statistical data from the service perspective that included the number of daily visitors, number of concurrent users, and numbers indicating load on the application.

However, in companies that introduced APM early on, APM increasingly failed to meet the needs of the

practitioners and it merely filled the screen of the PC designated to be the official monitoring station. Even when a serious performance fault event was triggered in the WAS system, the APM at the time was unable to respond to it properly.

"The necessity for APM was suggested since the early months of 2000, but users turned away from it because it provided no practical benefits compared to what was ideally needed," said Lee Won-young, JenniferSoft's CEO. "Because of that, companies turned their heads from APM", he added.

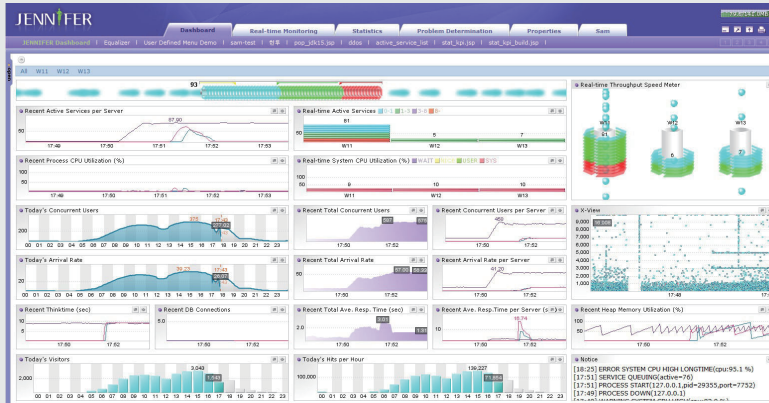
"We had implemented Wiley, but IT managers almost never used it, so it was really a performance monitoring system in name only. Performance problems were almost always handled manually," said Rhu Hyung-cheol, head of the Information Management group at Prudential Corporation Asia.

JENNIFER APM used WAS systems across Prudential Corporation Asia

Prudential Corporation Asia abandoned its existing APM and introduced JENNIFER in 2007. At the time, Prudential Corporation Asia was working with E-Integration, a WAS integration company, on getting its



"It's when I think back to the days of not using APM that I can really appreciate its effectiveness", said Rhu Hyung-cheol, head of the Information Management group.



Mr. Rhu said that in the early stages after the introduction of APM, they “approached it as a means of using the DB properly. Currently, though, APM is used not only for DB performance management, but also for monitoring systems across Prudential Corporation Asia, including WAS, customer service, and internal management systems.”

Monitoring response time in real-time

Among JENNIFER's features garnering the most kudos is the ability to monitor end user response times.

It is acknowledged within the industry that Prudential Corporation Asia, a company that considers raising customer satisfaction important above all, succeeded in upgrading its customer service up a level through JENNIFER APM.

When WAS, which is part of the server-side domain, alone is monitored, there is the disadvantage of not being able to detect early the response lag time that can occur between the real user's server and the server-side transaction. JENNIFER's end user response time monitoring feature became the best answer in overcoming this problem.

Being able to measure user response times without having to install a separate agent on users' PCs or a separate monitoring device on the network, coupled with the fact that it was all possible from JENNIFER's built-in features alone without any burden on maintenance, made the feature that much more attractive.

WAS system up and running. E-Integration, knowing that JENNIFER could meet the client's requirements, used JENNIFER APM for performance management during the project. However, after the completion of the project, Prudential Corporation Asia decided to go with Wiley. Being a global company, it could be that its knowledge of local solutions was low, but there was also the fact that the confidence levels towards homegrown solutions were rather low at the time. But IT managers found Wiley cumbersome to use because you had to go digging inside the system looking for the root cause of the problem before seeing anything. As a result, its use was infrequent.

In contrast, JenniferSoft's JENNIFER provided on one screen performance indicators that were intuitive and visually rich.

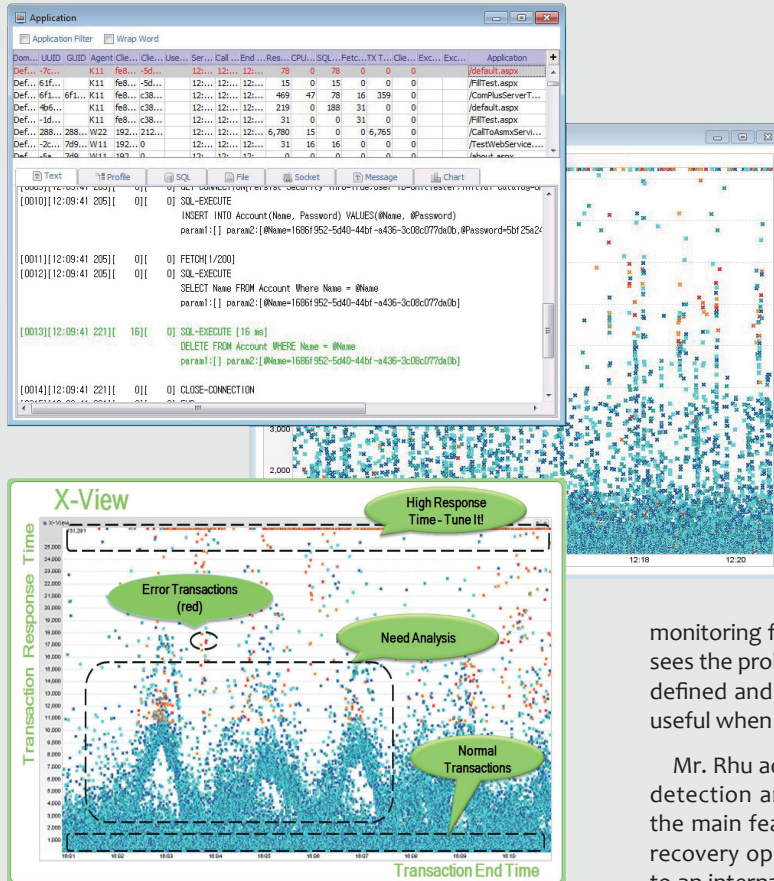
Real-time monitoring and single transaction trace capabilities provide instantaneous fault detection feedback needed for operational environment monitoring to the operator, making it possible to reduce system downtime dramatically.

Mr. Rhu explained, “through JENNIFER's intuitive dashboard, colorful graphics, and customized screens you can see the entire WAS system from a single monitor, and because it allows you to respond to performance problems and error conditions in real-time, you can't help but like it. This is why we decided to leave Wiley and go with JENNIFER again.”

Additionally, the JENNIFER agent is designed to have minimum impact on the system, and the core performance numbers needed for monitoring (number of concurrent users, number of short- and longterm users, active services, TPS, response times, etc.) are provided in real-time. Such real-time monitoring capabilities and single transaction monitoring provided the operators the needed real-time environment for fault detection, enabling them to reduce downtime of operational systems.

About JenniferSoft

JenniferSoft, Inc. is the software development company with expertise in system performance monitoring and performance problem resolution. With experience in enterprise system planning and consultation, JenniferSoft has been providing Application Performance Management (APM) solutions and services for enterprise companies' web system. JenniferSoft's APM solution, JENNIFER, specializes in JAS (WebSphere, WebLogic, Resin, GlassFish, JBoss, Tomcat, etc.) performance monitoring and supports different types of Operation System including Windows, UNIX, and especially z/OS. JenniferSoft has established regional headquarters in Austria, US, Japan, Korea, China, and Thailand and JenniferSoft has formed business partnership with global IT companies.



basis for a set date and time. This made it possible to find problems even in the past. It goes without saying this reduced the time it took for root cause analysis and problem resolution.

From the IT management perspective, APM itself is important, but this is only so when there is a performance problem or an error condition. After implementation and reaching operational stability, not much attention is paid to APM itself, as the IT manager cannot focus just on monitoring the APM. APM administration takes up barely 5% of an administrator's time. Even so, PCA was able to raise management effectiveness through JENNIFER's web reporting capabilities.

Mr. Rhu said, "because the APM is used to handle performance faults and other problems, the role of continuous monitoring falls on the operator and the manager rarely sees the problem." He said, "the ability to generate user-defined and template-based statistical reports are very useful when submitting monthly reports."

Mr. Rhu added that in addition to the application fault detection and recovery time reduction that count as the main features, the APM system was also used in a recovery operation. "A system fault was triggered due to an internal user error and this resulted in the damage of 3-month worth of data. Using JENNIFER's traceback transaction feature, we not only minimized the duration of the fault state while recovering the data table, we were able to recover even the data," he explained.

Since its establishment in 2007, Prudential Corporation Asia has been using JENNIFER APM's early version and is getting ready for an upgrade and preparing a maintenance contract.

JENNIFER measured system-wide transaction trends from users to back-end systems, and in the event of a performance bottleneck, it raised an alarm with the corresponding problem spot, making it possible for a rapid response. This made it possible to achieve business productivity improvements through raising the level of customer satisfaction.

Problem detection in real-time, the ultimate in performance management

Mr. Rhu explained that when he thinks back to the days of not using APM, that's when he can really appreciate its effectiveness. "The fact that we can clearly see the performance errors and root causes of problems through APM are, by themselves, the fruits of introducing APM," he added.

JENNIFER's X-View transaction analysis feature – currently the most frequently used feature – allowed real-time analysis of problems through intuitive views and detailed profiling information on transactions causing performance degradation. Through the screens of X-View, traffic can be analyzed on a module-by-module

Company Overview | Prudential Corporation Asia

Prudential plc is an international financial services group with significant operations in Asia, the US and the UK. We serve more than 26 million customers and have £351 billion of assets under management. We are listed on stock exchanges in London, Hong Kong, Singapore and New York.

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