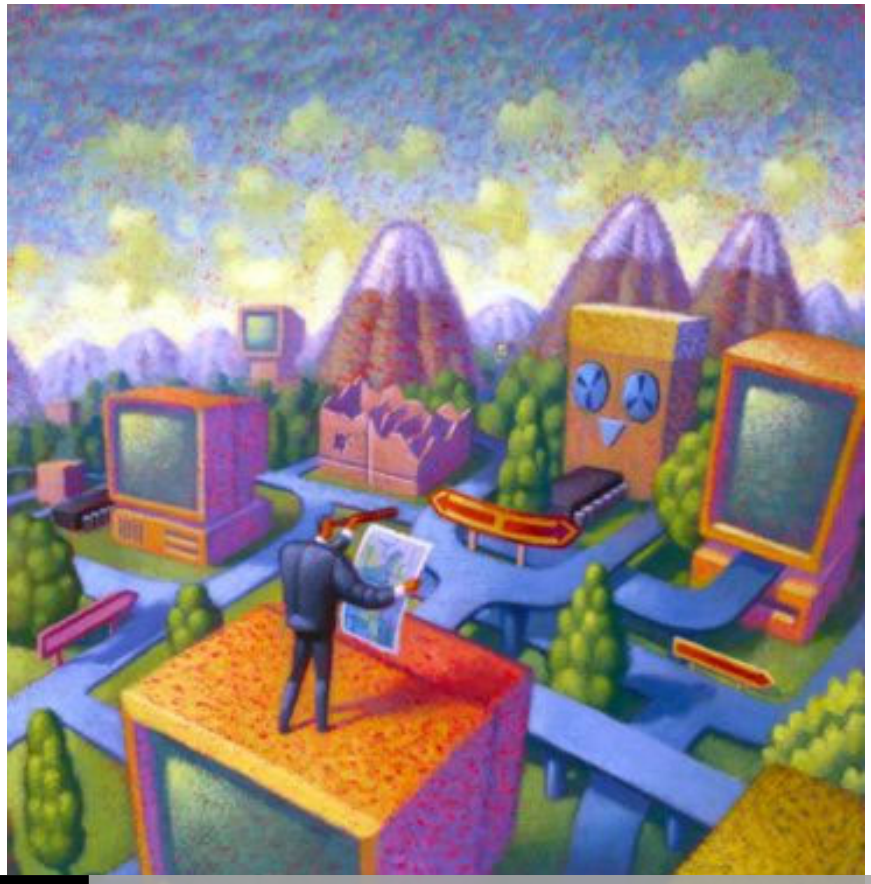

CRESSIDA TECHNOLOGY

SNS BANK AND CRESSIDA REQUEST™ TEAM UP TO DELIVER BUSINESS TRANSACTION AUDITING AND VALIDATION

"ReQuest is a much higher impact product than traditional performance monitors; it can track historical records of processed MQ messages and business transactions, the kind of critical auditing and tracking tool that our business application owners and auditors require us to deliver."

cressida™

SNS Bank

Background:

SNS Bank is a subsidiary of SNS REAAL, an innovative service provider in the banking and insurance sector with a prime focus on the Dutch retail market and on small and medium-sized enterprises. Its activities cover three main product groups: mortgages and property finance, savings and investments and insurance. From its historical background, SNS REAAL has always felt close to Dutch society. With a balance sheet total of nearly Euro 129 billion (ultimo 2009), SNS REAAL is one of the major financial bancassurance companies in the Netherlands. The company has a staff of nearly 7700 (FTE) and is headquartered in Utrecht, the Netherlands.

SNS Bank is an accessible, personal and innovative bank with almost 200 years of experience. The bank offers a complete range of products and services in savings, mortgages, payments, investment, loans and insurances. As a Dutch bank since 1817, SNS Bank strives to be close to her customers and offers her customers accessible and transparent products and services. With a net profit in 2009 of € 116 Million Euros, a balance total of approximately € 80 Billion Euros and around 3,000 employees, SNS Bank is one of the larger banks in the Netherlands.

The IT infrastructure of SNS Bank employs more than 400 staff to implement the overall IT strategy of SNS Reaal, including system installation, availability and performance monitoring as well as the on-going maintenance of the IT systems. They supervise the availability and uptime of over 3,000 user workstations handling in excess of 1.2 million daily financial transactions.

> ***"When a back-end message to SWIFT does not get processed at the end of the chain from a transaction consolidation run that occurred several days ago, we were asked to find out why?"***

SNS runs many crucial banking applications, including core applications that run on the mainframe and consists of the bank account administration system (*SNS Administratie Systeem*) as well as the securities administration system (*Effecten Administratie Systeem*). These have online interfaces via the SWIFT network to numerous financial institutions, handling financial payment information and

share trading. WMQ plays a prominent role in the integration and overall intercommunication of the various applications. **SNS runs a mixture of Queue Managers on both MQ 6.x and MQ 7.x on IBM P series (AIX), and also on Windows for the SWIFT Alliance application.**

Requirement:

William Quixley, Tactical Administrator Middleware, states that *'a few of **our Business Unit owners were asking our department to identify issues with verification and validation of transactions in the production environment.** Neither during the testing nor during production could we easily find and provide the Business Owners a good answer'.*

Ron Boosten, Senior IT Architect, who has been working together with William Quixley since SNS Bank started using MQ in 2002: *"MQ and WMB (at the time MQSI) were at first used in a proof of concept with limited impact. During the years it slowly expanded. At first it was used for inquiries between various systems. And one morning you wake up and realize that the tools are being used for loosely coupling various critical systems of your company, some with possible large financial impact. So when you take a step back and evaluate the infrastructure, you see you have two choices: re-engineer the infrastructure, or use tooling to make sure you're up to speed with the current needs of your customers, even if they are not exactly sure what they need themselves."*

> ***"We have the responsibility to the business application managers and our internal auditors to be able to tell them what happened to a particular message (the so called audit trail)."***

Philip Rousseau, Software Tooling Specialist, added 'we have the responsibility to the business application managers and our internal auditors to be able to tell them what happened to a particular message (the so called audit trail). It was unacceptable to not be able to tell them what had gone on exactly with transactions within the infrastructure maintained and managed by our group'.

Quixley stated "We did look into what we could provide on our own from the application, or from specially written code but decided against it because such code:

- Was not easy to write one for each application
- Had to be globally usable in our infrastructure
- And certainly meant we had to also maintain it for the long term (to remain viable for various WMQ versions, Operating Systems, Application releases)"

Solution:

SNS was made aware that most of the needed information could be obtained by having access to the logs of the processed messages, but also that the necessary data was not readily available without acquiring a vendor tool. A search via the internet identified ReQuest for WebSphere MQ by Cressida Technology. ReQuest appeared to provide the necessary information that SNS was looking for. ReQuest was brought in and installed on several IBM virtual systems servers to be evaluated for point-in-time reporting, replay and recovery of MQ messages.

> ***"We found that ReQuest could be fitted into the infrastructure with limited effort, as it makes use of IBM's WebSphere MQ Series existing logging mechanisms instead of introducing and adding layers of new complexity."***

Rousseau commented 'we found that ReQuest could be fitted into the infrastructure with limited efforts, as it makes use of IBM's WebSphere MQ Series existing logging mechanisms instead of introducing and adding layers of new complexity. We had to change some settings. To use ReQuest required us to use persistent messaging. We switched from the non-persistent messaging and circular logging we were using at the time, and incorporated the back-up of the linear logging in our standard back-up procedures. On the other hand, ReQuest did not require us to modify our architecture or write additional code or incur extra overhead collecting already available data'.

Alternatives:

Rousseau added 'we investigated and looked elsewhere as well, and came across a couple of other alternatives but found that:

- The other solutions were either highly intrusive needing changes to both our applications and even MQ itself, requiring extra application instrumentation

- They resulted in additional MQ overhead in collecting and manipulating the needed data where we knew that the data already existed in MQ logs

Whereas the **Cressida ReQuest** solution is:

- **Non-intrusive**
- **A Transparent plug-in**
- **Using the mechanism that IBM itself provides to collect the data**
- **Not changing or altering the messages - they could be seen and reported exactly as they had been'**

Usage examples

Quixley adds: "For instance, we use ReQuest to debug production as well as test systems issues. When the status of a message was in doubt, we had to check the applications on both sides of the message transaction to try to identify the status, and then look for evidence that the message had been processed and put through from the output application. *With ReQuest, we can directly look into the 'point-in-time' whereabouts of messages, based on a range of transaction names and IDs within a timeframe.*

> ***"With ReQuest, we can directly look into the 'point-in-time' whereabouts of messages, based on a range of transaction names and IDs within a timeframe"***

As an example when a back-end message to SWIFT does not get processed at the end of the chain from a transaction consolidation run that occurred several days ago, we were asked to find out why. All we had to go on were either a transaction number or ID to search for in a particular timeframe, or a name or description contained in the message, and these searches Cressida ReQuest can do right off the bat'.

Higher impact tool than a Monitor

Quixley further commented that 'ReQuest is not an MQ resource monitor whose role would be to provide alerting when an MQ resource exceeds desired thresholds or is not like MQ Editor type products where one needs to have access to currently in-use and in-process messages'.

> ***"ReQuest is a much higher impact product that can track historical records of processed MQ messages and business transactions, the kind of critical auditing and tracking tool that our business application owners and auditors require us to deliver."***

Quixley stressed the point that 'ReQuest is a much higher impact product that can track historical records of processed MQ messages and business transactions, the kind of critical auditing and tracking tool that our business application owners and auditors require us to deliver'. Quixley adds 'In the Netherlands we participate in SEPA (Single Euro Payments Area) transaction processing and also we must comply with the Basel II regulations. These result in requirements to keep a history of transactions in the archiving of processed work. One of the ways in which we meet the requirement is by maintaining the MQ generated logs for a period of up to 2 years. ReQuest gives us the needed access to read the historical logs whenever we are asked to handle records of old transactions.'

Closing remarks

Today, SNS also makes use of ReQuest during the testing process, as it helps their application development and testing staff to check on the step-by-step processing of messages. Quixley commented ***' We see a future potential good usage for ReQuest for Regression testing of new applications by feeding it production strength messages traffic data captured from our production systems by using the ReQuest Replay files 'from and to' facility.***

In a closing remark Quixley states ***'we are happy with the ReQuest solution, we receive good support from the Cressida teams, and we will be looking forward to expanding our working relationship with ReQuest and Cressida in the future'.***

For additional information and a list of local contacts nearest to you please visit our website on www.cressidatechnology.com

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