

CUSTOMER SUCCESS STORY

Navy Federal improves DB2 transaction throughput by 30 percent with proactive performance management



CUSTOMER PROFILE

Industry: Financial services

Company: Navy Federal Credit Union

Employees: over 7,000

BUSINESS

Navy Federal Credit Union provides financial services to over 3.6 million US military and Department of Defense personnel and their families across the globe and is the world's largest credit union.

CHALLENGE

Faced with a growing membership, Navy Federal needed to keep its services highly available but without added cost. This meant enhancing its approach to managing database performance on the mainframe.

SOLUTION

CA Technologies Database Performance Management solutions give Navy Federal deep visibility into its mainframe database environment, enabling proactive identification and problem resolution.

BENEFIT

Navy Federal is delivering an improved member service with no additional resource expenditure. DB2 transaction throughput has increased by nearly 30 percent while DB2 distributed CPU usage has reduced by 40 percent.

we can



Business

A world-class service for the US military

Navy Federal Credit Union was established in 1933 to offer financial services to the US Navy. Today it provides loan, savings, card, investment and insurance services to over 3.6 million military and Department of Defense personnel and their families across the globe.

The world's largest credit union and a Fortune 100 company, Navy Federal is headquartered in Virginia, USA with a fast expanding branch network of 205 offices worldwide.

As a not-for-profit organization, Navy Federal is committed to running a highly cost-effective business. In doing so it aims to pass financial savings back to its members while still delivering a world-class service through its Internet, mobile devices, call centers and branch operations.

Challenge

Improve service and reduce cost

Navy Federal needs to ensure long-term quality of service due to its rapidly growing membership and extended global presence. At the same time, it needed to minimize costs, allowing its services to remain highly competitive and attractive to military personnel and their families.

“There were occasions when troubleshooting became a manual, reactive process.”

Ed Vetock

Lead Database Administrator, Navy Federal Credit Union

Like many financial organizations, a large proportion of Navy Federal's support costs are associated with the necessary provision of a high availability, high performance infrastructure for storing and processing customer data and financial transactions.

At the core of Navy Federal's service is its IBM mainframe, which runs DB2 databases as well as a transaction server. Ed Vetock, Lead Database Administrator at Navy Federal, explains, “The mainframe is the center of our business and services all our delivery channels – from the Internet and mobile

banking to branch operations and call centers. Altogether we have nearly four terabytes of DB2 data and execute more than 400 million CICS DB2 transactions and 1.2 billion dynamic SQL calls a month.”

Navy Federal’s mainframe must be managed effectively, or both costs and member services could be affected. As Vetock explains, “We were seeing a big increase in application development processes that access DB2 data on the mainframe, but lacked full visibility into what those applications were doing. This not only meant more costly manual interventions by the administration team but it could also affect the availability and performance of our membership services.”

Although Navy Federal was already using a database management toolset, the IT team recognized its limitations regarding deep visibility into application execution and system resource consumption. “There were occasions when troubleshooting became a manual, reactive process,” comments Vetock. “Some problems were only discovered after the fact. Understanding and solving the problem then meant replicating the conditions that led to it and eliminating the possible causes one by one – which could be expensive and time-consuming.”

Facilitate future growth

As well as addressing its specific DB2-related challenges, Navy Federal needed to maximize the value from its infrastructure expenditure to support its growing membership and service portfolio.

“First, we wanted to support our growing number of members cost-effectively by optimizing our current system resources,” comments Vetock. “Secondly, we wanted to assist developers by reducing DB2 application development costs and improve our ability to release applications quickly that were robust, error-free and served our members well.”

Navy Federal recognized that to meet its objectives, it required a best of breed database performance management toolset that would give it a comprehensive view into DB2 resource usage and performance.

Solution

Proactive database performance management

As Navy Federal began to evaluate vendor options, there were two solutions that immediately stood out as addressing the company’s needs. “We found that CA Detector® for z/OS DB2 and CA Subsystem Analyzer for z/OS DB2 met our requirements and could easily be integrated with our existing systems and with each other,” says Vetock.

CA Detector and CA Subsystem Analyzer are part of CA Technologies Database Performance Management solution. CA Detector helps identify and address issues with applications and SQL calls, while CA Subsystem Analyzer enables the quick identification and repair of subsystem resources and database objects that impact database performance.

Navy Federal began by deploying the solutions within its development environment, where it soon began to see benefits. As Vetock explains, “We found we were able to reduce the performance impact of SQL calls to the databases, as we could easily see the frequency of those calls and their usage of

system resources. It meant we could be much more proactive, identifying problems far earlier in the development cycle.”

Once the solution was implemented within Navy Federal’s production environment, the response within his team was enthusiastic, as Vetock recalls. “We saw how tuning some systems could substantially and immediately reduce our systems resource costs and improve throughput of DB2 transactions.”

Simplifying development and testing

Since their deployment in July 2009, CA Detector and CA Subsystem Analyzer have become integral to Navy Federal’s DB2 database subsystems and overall mainframe operations. CA Subsystem Analyzer helps the company manage CPU utilization, disk and memory storage, logging activity and database

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connections cost-effectively, while CA Detector helps ensure throughput, availability and performance to meet the world-class service expectations of Navy Federal’s members.

Vetock says that the CA Technologies solutions have greatly simplified application development and testing. “It means we’re involved early in the development cycle, helping developers optimize SQL, figuring out where the problems are and how the system resources are being used. That means far fewer problems, which can be addressed long before they impact our members.”

The success of the implementation is already leading Navy Federal to look at how it can make even better use of its CA Technologies investments. “We are already using CA Insight™ Database Performance Monitor for z/OS DB2 for real time monitoring and performance reporting and our systems personnel are using CA SYSVIEW® Performance Management. We think that by integrating these, together with CA Detector and CA Subsystem Analyzer, into a single solution we can provide an even better service at reduced cost.”

Benefit

Improved performance, reduced costs

With the help of CA Technologies Database Performance Management solutions, Navy Federal is able to offer an improved service at reduced cost to its fast-growing membership. As Vetock confirms by citing an example: “We had an application that should run once an hour 24 times a day, which suddenly started to run more frequently, giving us a big spike in CPU usage. Previously we would have had to use an expensive performance trace to find the source of the problem, which could take a couple of hours. With CA Detector we were able to find the problem in less than 10 minutes and take corrective action before it affected our members – and at far less cost.”

“CA Detector and CA Subsystem Analyzer are helping us deliver a world class service at reduced cost.”

Ed Vetock

Lead Database Administrator, Navy Federal Credit Union

Vetock adds that this also has the benefit of freeing up staff to work on more strategic projects, “CA Technologies Database Performance Management solutions have greatly increased our efficiency. People are working more on projects that add value to the business and less on day-to-day fault resolution.”

By facilitating a more proactive approach to performance management the CA Technologies solutions have enabled Navy Federal to:

- Achieve a 30 percent increase in DB2 transaction throughput and meet its goal of ‘no perceived system outages’
- Safeguard the company’s reputation by proactively addressing performance issues before they impact members
- Service a growing membership without additional resource expenditure by optimizing its systems and reducing DB2 distributed CPU usage by 40%
- Improve strategic focus by freeing up staff from day to day trouble-shooting

“The CA Technologies solutions have delivered on – in fact exceeded – our business and our technical objectives”, says Vetock. “We used to utilize nearly 14-15 hours of DB2 distributed CPU a day, which has been reduced to six to eight hours. Also, because we’re consuming less system resources we’ve seen a 30 percent increase over the last year in the throughput of DB2 transactions, which is helping improve service to our members.”

Vetock concludes, “CA Detector and CA Subsystem Analyzer are helping us deliver a world-class service to our growing membership at reduced cost. Frankly, I don’t know how we managed without them.”



30%

increase in DB2 transaction
throughput

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