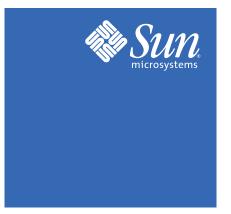# CASCO Co., Ltd.

Key highlights

Industry/Market:
Financial Services

Products/Services
• Sun Fire™ 4800 server cluster

• Sun Fire 280R server

• Sun StorEdge™ A1000 storage system

• Sun StorEdge L20 tape library

• Sun™ Mainframe Transaction Processing software

• Sun Mainframe Batch Manager software

• Solaris™ Operating System

• Sun Services

• SunSpectrum℠ service

Key Business Challenges
• Reduce IT operating expenses

• Preserve legacy application assets

• Create solid business infrastructure for future growth

Key Business Results
• Reduced IT operating costs by 50 percent

• Doubled processing capacity with the new Sun system

• Retained assets of the legacy application in the open systems environment

• Streamlined and simplified staff training with a single set of education requirements

• Established path for IT and business growth

"By replacing the mainframe with a Sun open systems environment, we have cut operating costs in half and doubled average processing capacity. If we had continued with the mainframe, we would not have converted our databases into relational databases, and would have incurred additional costs. The project has achieved exactly the results we aimed for, and even more."
– Kotaro Terada, Business Strategy General Manager, CASCO

This Osaka-based financial services company grew steadily during its 40-year history, until Japan's prolonged period of deflation, which made it necessary to reduce costs in order to remain competitive in the consumer loans market. CASCO found it could slash operating costs and reinforce its business infrastructure by rehosting legacy IT applications from a mainframe to an open systems environment from Sun Microsystems. As a result of this project, CASCO has reduced operations costs by half and gained important new IT functionality at a fraction of the cost it would have incurred by adding the same features to the existing mainframe system.

CASCO Initiates New Business Ventures
With offices throughout Japan, CASCO is one of the primary providers of consumer loans. A few years ago, CASCO launched a new strategy to attract additional customers by opening a series of unmanned satellite offices and an Internet-based branch office. The public responded well to these innovative ventures, given the growing comfort in conducting financial services via electronic methods.

As CASCO launched these new services, the country went through a lengthy period of economic shrinkage, which took a heavy toll on financial services providers. With significant pressure on margins, the company knew it had to improve its cost structure in order to remain competitive and retain market share. CASCO looked at all operations to reduce costs. Because information and human resources are the keys to success in any management strategy – be it cultivating new markets, promoting new products and services, or diversifying a business – CASCO's initial focus for cost reduction was in IT.

CASCO Moves Away from Costly Mainframe Environment
When CASCO studied the options available to impact IT operational costs, an essential issue was at the forefront. CASCO did not want to sacrifice the years of application development and knowledge accumulated on the mainframe system. It was imperative that any IT solution incorporate these important assets.

With Sun MTP and Sun MBM software, CASCO was able to reproduce the operations of its mainframe system on cost-effective Sun servers, without sacrificing its legacy investments.

Initially, CASCO considered a migration proposal from a mainframe vendor, but their ideas did not enhance the company's business infrastructure.

CASCO also examined a packaged software solution. The drawback to this approach was that the accumulated knowledge, philosophy, and other intangible assets residing in the existing system would be lost in such a move.

The company investigated yet another solution, which involved rehosting the mainframe programs onto UNIX® servers. It was a promising option, because the mainframe's application and data assets would be preserved, the new system could be implemented quickly, and it would meet the company's goals of improved performance and reduced costs.

"Mainframes are expensive, not only to acquire, but also to maintain and manage. Think about all the peripherals and heavy burden of software license fees!" explained explained Kotaro Terada, general manager of CASCO's business strategy office. "Migrating to an open system was a somewhat risky proposition, but since our goal was to achieve overall cost reduction, our accounting system could not remain immune to changes."

After careful consideration, CASCO decided to rehost its mission-critical accounting system from an IBM mainframe to a Sun UNIX-based open system. For the new system, CASCO chose the Sun Fire 4800 servers, together with Sun Mainframe Transaction Processing (Sun MTP) and Sun Mainframe Batch Manager (Sun MBM) software.

Sun MTP enables popular mainframe CICS transaction processing applications to run natively on the Solaris Operating System with little modification. Sun MTP allows continued use of VSAM (IBM's virtual storage access method) data along with COBOL and PL/I applications . The software also provides an interface with relational databases, including DB2 and Oracle.

Sun MBM software performs mainframe batch processing on the Solaris Operating System. and the software also supports systematic job step processing and job recovery. Using Job Control Language (JCL) translators, JCL-based job streams can be retained, allowing various mainframe batch-processing functions to be performed in an open system environment.

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"When a financial institution decides to replace its mission-critical accounting system, failure is not an option. We had only six months before cutting over to a new system. Those were tough conditions, but we figured the risk was not as high as it seemed, because Sun has had numerous successful rehosting experiences overseas."
– Kenji Kojiguchi, Director of General Service Division, Acces

CASCO Rehosts Legacy Application to Sun Open Systems

The rehosting project was implemented jointly by Acces Co., Ltd., a proven financial system integrator who had developed CASCO's legacy system, Itochu Techno-Science Corporation (CTC), and Sun Microsystems.

After examining the project feasibility and deciding on the Sun solution, the three project partners began work in earnest to set up the new environment and rehost the application. CTC augmented the rehosting effort by migrating the sales office terminals and automatic teller machines (ATMs) that were part of the complete solution.

Because CASCO's mainframe assets were not all active, an important first step was sorting the application inventory to minimize the migration tasks. The complex applications were constantly changing, like living organisms, so no amount of design sheets or documentation could capture the system in its entirety. However, with a fresh approach, CASCO and Acces squeezed the existing 3.49 million steps of programming down to 1.78 million steps by utilizing Acces Asset Assessment (AAA) service.

The company's previous mainframe system processed an average of 150,000 mission-critical loan and repayment transactions per day. Migrating this workload to an open system required resolving numerous issues regarding online connection and control.

"When a financial institution decides to replace its mission-critical accounting system, failure is not an option," noted Kenji Kojiguchi, director of General Service Division at Acces. "And we had only six months before cutting over to a new system. Those were tough conditions, but we figured the risk was not as high as it seemed, because Sun has had numerous successful rehosting experiences overseas."

In spite of the enormity of the project, the cutover to the new Sun system took just six months. A cluster of Sun Fire 4800 servers now ensures the high availability of information that is essential for an accounting system. A Sun Fire 280R is used as a communication server, supporting the SNA gateway and enabling continued use of sales office terminals and ATMs that were formerly connected to the mainframe.

CASCO Gains a Solid Solution for the Future

"The legacy system used hierarchical databases with 10 million entries, delivering the performance speed of five transactions per second. With the new system, the capacity of the converted RDBs has increased to 30 million entries and the processing speed went up to 15 transactions per second," Terada explained.

"The load test results indicate that the

system performance would not deteriorate unless the load exceeds 50 transactions per second or so. Considering all these benefits, the real cost-cutting effect of the new system is probably far more than meets the eye."

The new system still has a great deal of capacity for performance growth, so CASCO can easily accommodate functional enhancements in the future.

By one measurement, performance of CASCO's system has more than doubled from the previous mainframe. Today, the company handles as many as 200,000 transactions per day, but the peak CPU utilization is less than 30 percent, or about 20 percent on average. In fact, because the CPU load includes running a monitoring program for log analysis, actual transaction processing performance is even more efficient. With further tuning, CASCO can expect a greater boost in performance.

In addition to performance and reliability

gains, CASCO has simplified its staff training requirements. With the company's entire IT platform unified on Sun open systems, it is easier to educate IT personnel. There is no longer a need to invest time and resources on COBOL and other legacy IT assets, focusing instead on improving staff skills on Web and Java technologies that will be the future basis for system maintenance and development.

With recent system migration, CASCO has met its original objectives of reducing costs and gained an integrated IT environment that significantly increases its competitiveness in the market.

With this powerful IT infrastructure to support continued business expansion, CASCO is moving on to face new challenges.

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