

SUN MICROSYSTEMS

Core Processing Minus the Mainframe at Krung Thai Bank

Thailand's second largest commercial bank has chosen network infrastructure from Sun Microsystems to power Fidelity Profile, the real-time core system that today handles its 13 million customer accounts

Replacing a core-banking system is the equivalent of a heart transplant – an operation not to be undertaken lightly. So it says something about the confidence Krung Thai Bank (KTB) had in its technology partners that it opted to convert more than 650 branches and 13 million accounts to its new system over the course of just one weekend.

Fidelity Information Services' Profile software, running on a Sun Solaris platform, went live at KTB last fall. It is among the world's largest real-time implementations of a core-banking system on a single vendor platform and, since the go-live date, it has been in continuous operation with no downtime.

Currently installed in more than 350 financial institutions worldwide, Fidelity Profile is an integrated, multi-currency system for processing deposits and loans. It provides 24x7 online availability and business continuity. Its real-time transaction processing and fulfillment capabilities enhance customer service across all delivery channels and improve operational efficiency.

Krung Thai's implementation is also among the largest installations of core-banking software running on a single database. "We have done a

significant amount of research and have not identified another real-time system anywhere near the size of KTB," says Frank Sanchez, president of leveraged product development for Fidelity Information Services' enterprise banking division. "In fact, we haven't seen a batch or mainframe system that contains 13 million accounts on a single integrated database."

"Core banking has traditionally been the domain of mainframes," says Bart Narter, senior analyst at Celent. "KTB has moved to Sun and, with 13 million accounts and 650 branches, it now has one of the largest real-time, online-banking databases in the world."

HAMPERED BY LEGACY INFRASTRUCTURE

Since its foundation in 1966, KTB has experienced significant growth. Today, it is a dynamic commercial operation providing world-class services to both retail and corporate customers, and government agencies. The new core system liberates KTB from the constraints of its legacy platforms, which were increasingly hampering its efforts to become a "convenience" bank, offering a variety of financial products to customers on an "anytime, anywhere" basis.

As a state-owned bank with a charter to help Thai businesses succeed, KTB has for the past decade focused on stimulating the national economy while at the same time securing its own growth. To achieve these dual goals, the bank has restructured its operations and launched initiatives to grow its assets, reduce costs and increase its competitive-





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ness. Central to these initiatives was the decision, in 2001, to replace its legacy core-banking system with a modern technology infrastructure.

By the late 1990s, like many banks, KTB had found that its legacy infrastructure — the core-banking system ran on Tandem and Hewlett-Packard; the general ledger on IBM — made it increasingly difficult to keep pace with its customers’ changing business needs. These systems did not offer the speed, flexibility and time-to-market features that KTB demanded.

Moreover, the increasing cost and complexity of maintaining and upgrading its legacy systems proved a drain on KTB’s in-house resources and an impediment to its ambition to expand the scope, depth and speed of response to its evolving market.

“Krung Thai has a long history of helping Thai businesses, but the business environment is constantly changing as new opportunities arise,” explains CIO Chaichan Kangwanpong. “We realized we needed to be able to upgrade our infrastructure to match and even surpass that speed of change.”

SCALABILITY WAS VITAL

As it evaluated the alternatives, KTB knew system scalability would be vital if it was to handle larger transaction volumes and customers’ demands for real-time internet access. With such a vast customer base, it realized it needed open, industrial-strength processing power, with zero tolerance for downtime. The combination of Sun’s SPARC processor architecture and the company’s flagship Solaris operating environment, with its reputation for

robustness and high availability on Wall Street and beyond, attracted its attention.

KTB chose a Sun Solaris platform to support Fidelity’s Profile and signed up the locally based TN Information Systems as the prime contractor and systems integrator for the project.

“The scalability of the platform was a key factor because of the sheer size of the bank,” says Sanchez. “Solaris addressed that issue.”

REAL-TIME BUSINESS CONTINUITY

Back in 2001, a series of benchmark tests on Sun servers running the Solaris OS had convinced Fidelity that the “big iron” of a mainframe was no longer necessary for a core-banking system. Such applications running in batch mode on a mainframe typically handle 300 transactions per second. Yet when Fidelity tested its application on the Sun platform, it achieved a rate of almost 2,000 transactions per second, nearly seven times the performance of a typical mainframe. The company ported its solution to a Sun platform and entered into a joint marketing agreement. Fidelity is now working closely with Sun to evaluate and adopt subsequent generations of Sun technology, including Solaris 10 and Java Enterprise System.

“Sun is extremely pleased to be partnering with Fidelity to help Krung Thai Bank modernize its business, while internally increasing operational efficiency and gaining cost savings from our open systems,” says Donna Rubin, senior director of financial services, Sun Microsystems.

“The implementation at KTB is larger than anything we benchmarked, so it is evidence of the robustness of the Sun

platform,” Sanchez continues. “It combines online throughput with the ability to handle all the activity around each account. The scale of the implementation proves that a real-time Unix implementation can support the processing requirements of the world’s largest banks.”

Because the database contains crucial customer information, KTB’s system is configured as a cluster across two locations. At the production site, the solution includes two Sun Fire E12K servers, Sun Cluster software and Sun’s SE9980 storage solution. A third Sun Fire system, installed at a second site, not only provides backup, but is also used for testing and development. “It’s an example of a true 24x7x365 implementation with real-time recovery,” explains Sanchez. “We believe it’s the only system in the market today configured to provide real-time business continuity.”

REALIZING THE BENEFITS

With Profile up and running for more than a year, KTB is continuing to reap the benefits of its core-system replacement. The bank has been able to realize immediate savings by not having to resolve the maintenance issues related to running multiple back-end applications hosted on multiple platforms.

Fidelity’s Profile, combined with the flexible architecture of the Sun infrastructure, is enabling the bank to respond to the evolving business environment and get new products to market quickly. As the bank seeks to acquire and retain the most profitable retail and corporate customers, its ability to respond to their requests has been greatly enhanced by the system.

“The transition from our legacy systems to Profile — including the conversion of millions of accounts in just one weekend — was a success,” concludes Chaichan. “We now have a secure, robust solution that is easier to maintain and will last us well into the future.”