



Case Study

Intel® Itanium® 2 Processor

Financial Services

Transaction Management

Efficiency

Enhancing Performance at Lower Cost

SLI improves performance by adopting low-cost servers based on the Intel® Itanium® 2 processor

Established as Dongbang Life Insurance in 1957, Samsung Life Insurance (SLI) has been playing a leading role in developing the Korean economy and improving public welfare as the number one life insurance company in Korea. Through the years, SLI has grown to become one of the largest life insurance companies in Korea, offering a wide range of insurance, loan services, and investment trusts. Together with its business growth, SLI has also accumulated legacy systems in its IT infrastructure that have grown cumbersome and expensive to operate.

Recognizing that an efficient IT infrastructure was essential to continuing its business growth and keeping rising costs in check, SLI decided to replace its legacy systems with Intel® Itanium® 2 processor-based servers with the aim of reducing the total cost of operation (TCO) of its systems.

“We see an overall performance improvement with the new Intel® Itanium® 2 processor-based servers.”


Sang Ho, Yoon
Director, Information
Strategy Team
Samsung Life Insurance Inc.

Challenges

- **Reducing costs.** The costs involved in running aging, legacy systems was high, and SLI needed a scalable solution that could handle expanding business needs while helping to reduce the TCO
- **Improving performance.** With the IT infrastructure running the backbone of its insurance operations, SLI wanted the best performance out of its system through more efficient processor utilization

Solution

- **Migrate to open, industry-standard solution.** Deploy HP Superdome* servers based on the powerful Intel® Itanium® 2 processor
 - **Utilize Intel® technical support.** Take advantage of Intel expertise to help optimize servers for the best performance
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Samsung Life is now able to provide customers with faster service—thanks to the higher performance of the Intel® Itanium® 2 processor-based servers.

Assessing the Situation

SLI offers a wide range of services, from insurance and loans to investment trusts, to individuals and corporate customers. Insurance products include financial consulting services for individual financial management to corporate welfare such as corporate pension systems and private health insurance. SLI also provides a variety of loan products to direct investors of shareholders and bondholders, while contributing to the growth of the national economy through loan funds for various industries. These subsystems include the Transport Management Information System

(TMIS), the railroad Dispatch Management Information System (DMIS), as well as the Passenger Management Information System (PMIS), among others.

To support the wide range of services, SLI ran its core processing systems on an IBM mainframe environment (7,500 MIPS). IBM had already announced the end of service of the IBM OS/390* operating system (OS) on the mainframe, and that users should migrate to the newer z/OS*. For SLI, the operating and maintenance costs for the mainframe system were already high, and migrating to the new z/OS meant an additional cost burden to the company.

Costs were not the only factor SLI was concerned about. The performance and stability of the system were also grounds for concern as the insurance business involved processing a large number of transactions every working day. Workload peaks from 9:00 to 9:30 AM and 4:30 to 5:00 PM every working day. During this time, the processor utilization of the existing system reaches 100 percent and results in increased performance latency in the system. This effectively lowered the response time of the entire system, thus affecting the productivity and efficiency of the system's end users.



“We aim to reduce our TCO with Intel® Itanium® 2 processor-based servers because they offer cost-effective performance and stability.”

Sang Ho, Yoon
Director, Information
Strategy Team
Samsung Life Insurance Inc.

Spotlight: Samsung Life Insurance Inc.

- SLI is the number one insurance company in Korea, providing services including insurance, loan, and investment trust services
- SLI became the first South Korean insurance company to achieve an asset base of USD 100 billion at the end of April 2006
- FORTUNE 500 rankings published in 2006 placed SLI in 12th position of life, Health Insurance industry in terms of total revenue.

** Source: <http://money.cnn.com/magazines/fortune/global500/2006/snapshots/1172.html>



“Through the deployment of Intel® Itanium® 2 processor-based servers, we have improved overall performance by lowering the average processor utilization by 40 percent.”

Sang Ho, Yoon
Director, Information
Strategy Team
Samsung Life Insurance Inc.

“When accessing the main data in the system, coding conversion between the data format and the OS was required, and this was ineffective and unnecessary,” explains Sang Ho Yoon, the director of the Information Strategy Team at SLI. “And this intermediate procedure habitually causes a delay in response time.”

Faced with the system’s performance degradation when handling increasing workloads and the need and costs involved in migrating to the newer z/OS, SLI decided to tackle the issues with a bold decision—migrate to an open, industry standards-based infrastructure that offered the company cost, performance, and stability advantages over the existing proprietary system. Towards this end, SLI chose to migrate to HP Superdome* servers based on the Intel® Itanium® 2 processor for its back-end database and application servers.

According to Yoon, SLI did their own research before making its decision, “We decided to migrate to the Itanium 2 processor-based platform, as we were certain about optimized performance and stability with lower cost through our series of benchmarking tests.”

Delivering the Solution

In migrating over to the new system, SLI deployed eight units of 64-way HP Superdome servers based on the Intel Itanium 2 processor, running with a re-hosting middleware application and platform based on UNIX*. The deployment of this open, industry standard solution would help SLI achieve its goal to reduce iTCO.

“Our benchmarking tests demonstrated the Itanium 2 processor-based servers’ excellent performance and stability,” says Yoon. “And with this deployment, we estimate that we can save on operating costs of about USD 22 million over the next four years, and USD 10 million for every year after 2010.”

To enable the existing applications and database to be used with the new system, SLI utilized the re-hosting system to convert them over to the UNIX platform with the re-hosting compiler and middleware. This helped lower the system deployment costs.

The new deployment has shown performance advantages over the previous system. Processor utilization during peak periods has been dramatically reduced by 40 percent,

Key Technologies

- Intel® Itanium® 2 processor-based servers provide cost-effective performance
- Re-hosting system enables the re-use of existing applications and database without an overall new deployment

Integral Answers

- With Intel® technology best suited for its demand in terms of performance and cost savings, Samsung can reduce TCO
- Intel® technical support specialists assisted SLI in optimizing performance of the servers

compared to the 100 percent utilization of the older system. Consequently, the response time has improved from 2.5 seconds on the previous system to within one second.

Through the open-frame system, SLI could also abolish the intermediate conversion process between data format and OS. As a result, SLI can provide faster services to its clients. In addition, the stability of the servers improved in such way that the database can be restored to 100 percent within two hours.

Find a business solution that is right for your company. Contact your Intel representative, visit the Intel® Business/Enterprise Web site at: www.intel.com/business or visit the industry solutions-specific sites at: www.intel.com/business/bss/industry/.

Return on Investment

- With Intel® Itanium® 2 processor-based servers, SLI estimates that it will be able to reduce its operating costs by USD 22 million over the next four years
- SLI was able to improve system performance by lowering processor utilization by 40 percent compared to its previous system, thus providing room for future growth and capacity to handle unexpected spikes in the workload
- By improving performance and stability with the Intel® architecture-based system, SLI is able to offer faster and more secure services to its clients

