

Increase IT Efficiency through Migration to Intel® Xeon® Processors

GS Home Shopping reduces costs and increases performance by replacing its UNIX*-based IT environment with Intel® Xeon® processor-based servers



“Our UNIX to Linux* migration was so effective that it is difficult to pinpoint any weaknesses in cost, performance, and floor space needed. We plan to switch most UNIX servers, including the main databases, to Linux-based Intel® architecture servers in two years.”

*Seo Ho Seok
Deputy General Manager,
GS Home Shopping*

CHALLENGES

• Time-efficient performance

GS Home Shopping needed a new system to resolve the difficulties field personnel had from the slow batch execution of legacy UNIX servers.

• Cost-efficient structure

GS Home Shopping needed a cost-efficient and high-performing system to solve the problem of high maintenance costs for the legacy UNIX servers.

SOLUTIONS

• Migrate legacy UNIX servers to servers based on Intel® Xeon® processor E5-2660.

After considering cost, performance, power and data center footprint, GS Home Shopping decided to migrate the application server and the eCommerce analytic database server to Intel® architecture-based servers.

IMPACT

• 15.6 percent faster response than the legacy UNIX server.

During the month-long application server test, the eCommerce analytics application server handled 3.1 times more requests during peak times, and the average response time of key applications decreased by 15.6 percent.

• Performance speed increased 2.4 times by changing database server.

The week-long eCommerce analytic database server test indicated showed 2.4 times faster batch performance.

• Reduces maintenance costs.

Maintenance costs are three times less compared to the existing system.

About GS Home Shopping

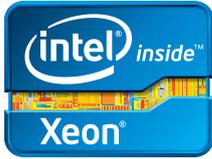
GS Home Shopping is an online shopping company that operates businesses on various channels such as TV, the Internet, and the mobile domain. GS Home Shopping is a large online shopping company with a website that receives an average of more than 20 million page views a day.

Since customer inconvenience and business losses are caused when the system is down for even a few seconds, system stability is most important and UNIX servers were chosen for processing the majority of their work.

Challenges with Legacy UNIX Servers

GS Home Shopping started to face challenges from its legacy UNIX servers. The cost structure was high, and the servers were not easily scalable. At the same time, the servers are not able to cope with the workload during peak hours, resulting in slow transaction processing times and customer complaints. The company felt the need to look for a new low-cost and efficient IT infrastructure to solve these challenges.

GS Home Shopping put together an e-IT team to look for suitable solutions. The team researched different products, technologies, and solutions on the Web, and also studied successful case studies and benchmark analyses of leading companies in the same industry.



Intel® architecture is ideal for high-performance IT infrastructures due to its performance, energy efficiency, IP bandwidth, and security

GS Home Shopping RISC Migration Results



Results from tests performed by GS Home Shopping comparing performance between existing UNIX system and new Linux systems

Find the solution that's right for your organization. Contact your Intel representative, visit Intel's Business Success Stories for IT Managers (www.intel.com/itcasestudies), or explore the Intel.com IT Center (www.intel.com/itcenter).

Successful UNIX to Linux Transition

GS Home Shopping carefully analyzed how leading eCommerce companies had solved inefficiencies in their infrastructure. They found that leading companies arrived at a low-cost, high-efficiency structure by using Intel architecture to improve product management and customer response.

After benchmarking, GS Home Shopping first migrated four of its 18 UNIX servers to servers based on the Intel Xeon processors E5-2660, and then gradually transitioned all 18.

Since Intel architecture is open and easy to scale, GS Home Shopping found it suitable for building a new low-cost and highly efficient IT environment, allowing them to move away from legacy UNIX servers.

Servers running on Linux operating systems have relatively low licensing costs, since it is open source. GS Home Shopping also found outstanding language compatibility with open source software.

As a result of the simplified infrastructure resulting from this migration, GS Home Shopping reduced issues with its servers by 10 to 20 percent.

Also, since infrastructure management became easier, customer response and online order processing have become smoother, resulting in improved customer satisfaction.

After the migration, GS Home Shopping found that the maintenance costs of the new servers were around three times less than for the legacy systems. At the same time, the overall system performance improved 2.4 times, and batch processing time was improved by 4.54 times.

With the improved system performance, GS Home Shopping estimates it will see a return on its investment after three years.

Efficient Migration and High Availability with Intel Xeon Processor E5-2660

The Intel Xeon processor E5-2660 reliability, availability, and serviceability (RAS) features

help GS Home Shopping achieve circuit-level high stability of the server, protecting the company's data and minimizing planned downtime.

GS Home Shopping deployed Intel Xeon processor-based servers and used jBoss Web Application Server* (WAS*).

The application nodes joined the WAS environment through load balancing to achieve high reliability while taking full advantage of server resources to enhance the overall performance of the Intel Xeon processor E5-2660. The hardware system structure was also important. The system will share the workload in parallel mode to achieve heterogeneous interoperability across the many system devices.

Compatibility with Medium and Large UNIX Server Databases

After the transition to Intel architecture, GS Home Shopping found that medium and large databases operated well even on Linux-based servers.

Also, scaling was easy, use was simple, and, by significantly lowering dependency on vendors, a low-cost structure was possible.

GS Home Shopping concluded that the Intel Xeon processor E5-2660 is ideal for enterprise resource planning (ERP) systems where a large number of databases must be processed because direct data exchange is possible between the processors and network adaptors, resulting in increased overall data processing speed.

With the success of the migration project, GS Home Shopping is now reconstructing its ERP system, which is the core system, and RISC migration is in progress.

Considered as a successful case of UNIX to Linux migration, switching to Intel architecture-based servers delivered performance and cost-saving benefits for GS Home Shopping, which plans to continue to replace its UNIX servers.

SOLUTION PROVIDERS:



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