

Consolidation of 14 servers onto a PRIMEQUEST 2 server cluster
Achieved stable operation and reductions in management costs

Solution

- Server Integration

Industry

- Medical

Products

- PRIMEQUEST 480



System introduction background

Sungae Hospital (Korea) is a mid-tier hospital with approximately 1,100 beds. They are actively investing in IT for their comprehensive medical information system (OCS) and medical graphics database (PACS). Sungae Hospital also introduced an electronic medical chart system (EMR) in Dec., 2005 and is now recognized as a digitalized hospital. As a result Sungae Hospital's is known for its frontier systems; equivalent to the largest hospitals including Seoul University Hospital.

Sungae Hospital already owned 20 servers and due to the latest system expansions, workloads were becoming heavier.

Mr. Kim, the Executive Director of Sungae Hospital, in charge of IT investment, said "Maintenance costs, such as for updating software versions and security patch management, were gradually increasing.

Also, system downs had occurred several times per year due to heavy workloads occurring on Monday and Tuesday mornings. Troubleshooting was also difficult due to the growing system complexity."

Mr. Bae, General Manager of the IT system division, said "It was a heavy burden to fully manage the OS, drivers and BIOS of 20 servers. Each had to be managed separately."

In addition, Sungae Hospital's plans to introduce the new electronic medical chart system (EMR) made server integration an indispensable option to improve load sharing.



Mr. Kim

System introduction process

An emphasis on transaction performance and support services

Sungae Hospital started to plan the server consolidation during 2004. They made a careful selection of products and finally decided on Fujitsu's Itanium2 server "PRIMEQUEST". Mr. Kim said "We selected Fujitsu and a US vendor from several other choices. At the beginning, we thought PRIMEQUEST was risky because it was still under development and did not have case studies. However, we came to think of Fujitsu as a reliable company after visiting Fujitsu's head quarter where we met both the development team and the support team"

Mr. Kim praised PRIMEQUEST and said "PRIMEQUEST is superior to other products. It is a machine with major components duplicated to achieve high availability. It is also good for I/O transactions."

Sungae Hospital spent 3 months on assessment and verification. After migration from the legacy system was completed, the new system started operation in Dec., 2005.

Today, Sungae Hospital has consolidated 14 servers onto 2 PRIMEQUEST 480(16CPU) Servers. Windows Server 2003, Datacenter Edition (64bit) is used as the OS.



Mr. Bae

Stable operation is the key to successful server consolidation.

With regard to the advantages of introducing PRIMEQUEST, Mr.Kim said "Performance was dramatically improved. The new system is 5 times faster than the legacy system. Also, operational maintenance used to require 10 employees, but now we have reduced those resources and cost reductions have been achieved. This is a great advantage"

Mr.Kim also said "Stable operation is the biggest advantage in server consolidation. Each PRIMEQUEST can be utilized in multiple ways by partitioning. Resource sharing is also available by unifying partitions. Previously, we were using 4 servers (1 CPU/Server). CPU utilization was 30-50% on average and above 70% when they hit the peak. With PRIMEQUEST (16CPU), CPU utilization is approximately 10% when it hits the peak. We think its performance is great."

System Overview

Server consolidation by PRIMEQUEST

Previously, 20 servers were utilized for operation. Sungae Hospital decided to consolidate 14 servers, used for OCS, PACS and EMR onto 2 PRIMEQUEST 480 machines. Windows Server 2003, Database Edition (64 bit) is used as the OS, with the servers in an Active-Active clustering environment using Microsoft Cluster Service (MSCS).

Future perspectives

Consolidation of 50 existing servers

Sungae Hospital has achieved reductions in costs and operation workloads by introducing PRIMEQUEST. They are now planning to consolidate a further 6 servers. Mr.Kim said "We postponed the consolidation of those 6 servers which runs on native 32bit applications. We are now thinking to gradually consolidate them to PRIMEQUEST. With the high capability of PRIMEQUEST, we believe that workload equivalent to 50 existing servers can be consolidated into it."

Mr.Bae highly acclaimed PRIMEQUEST and said "Thanks to this server consolidation, outsourcing was reduced and the IT division freed up management capacity. As a result, we were able to respond to security risks faster than before."

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