Neusoft Wuhan

Neusoft Wuhan's Hospital Information System provides flexible and efficient management of core administrative processes for many hospitals in Central China. By porting the solution onto SUSE® Linux Enterprise Server, Neusoft Wuhan was able to reduce costs, increase availability and boost performance for one of its most important clients.

Overview

Neusoft is China's largest IT service provider, with 17,000 employees and operations in more than 40 cities across the country, as well as subsidiaries in the U.S., Japan, Europe and the Middle East. Its Wuhan branch is the headquarters of its Central China business unit, serving Hubei, Hunan and Jiangxi provinces.

Challenge

Neusoft Wuhan has developed a highly sophisticated Hospital Information System (HIS), based on Oracle database technology, which is used by many hospitals in Central China. The solution helps to manage almost all core aspects of hospital administration, including digital medical records, prescription management, billing and payment, and many other important processes.

> **"Now that we have proven the effectiveness of SUSE Linux Enterprise Server in the healthcare sector, we are looking at other industries that could benefit, such as education and government. We hope to focus more on Linux solutions in the future, so we plan to recommend this SUSE solution to clients in many other sectors."**
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> **MR. ZHENYAN XIA**
> *Partner Product Development Manager*
> Neusoft Wuhan

One of Neusoft's most important clients, Xiangfan Central Hospital, was running this HIS solution in a Microsoft Windows Server 2003 environment.

"The client was very happy with the HIS solution, but the operating system was causing some problems," said Mr. Zhenyan Xia, Partner Product Development Manager at Neusoft Wuhan. "As the number of users grew, performance deteriorated, and server reliability problems reduced system availability."

As with all hospitals, Xiangfan Central Hospital needs its systems to be available 24/7 to enable it to deliver a continuous high level of service to patients. To improve availability and create a more scalable platform for future growth, Neusoft Wuhan began looking for a new operating system.

Solution

"We considered various platforms, and decided that Linux would be the best option," said Mr. Zhenyan Xia. "Linux is a very stable operating system, and is much less vulnerable to malware. Moreover, it can deliver superior performance even on low-cost hardware, and its licensing costs are significantly less than proprietary operating systems."

Neusoft initially considered Red Hat Enterprise Linux, but was more convinced by the case for SUSE Linux Enterprise Server.

Neusoft Wuhan at a Glance:

IT services and solutions company serving the Hubei, Hunan and Jiangxi provinces of Central China.

■ **Industry and Location**

Healthcare, China

■ **Products and Services**

SUSE Linux Enterprise Server
SUSE Linux Enterprise High Availability Extension

■ **Results**

+ *Increased performance of Oracle databases and applications by 30 to 50 percent*
− *Reduced software licensing and support costs by 50 percent*
− *Minimized downtime and maintenance workload, improving operational efficiency by 10 to 15 percent*

"We looked at references from other customers in China, and found that SUSE Linux Enterprise Server already had a strong presence in the healthcare, telecom and government sectors," said Mr. Zhenyan Xia. "We were particularly impressed by the example of the State Administration for Quality Supervision and Inspection and Quarantine, which uses this operating system throughout its entire infrastructure. As a result, we decided to go ahead and port our solution onto the SUSE Linux Enterprise platform."

In just one week, Neusoft was able to migrate the HIS system from Windows to SUSE Linux Enterprise Server, running on IBM System x3850 M2 servers. The solution uses the SUSE Linux Enterprise High Availability Extension to cluster each application and database instance across several servers, eliminating single points of failure.

"The implementation was simple, convenient and fast—and the support from SUSE has been excellent," said Mr. Zhenyan Xia. "Moreover, because Linux is more secure, there is less need to install patches and updates. This used to be a weekly task, but now we only need to do it once a month, or even once a quarter."

On the technical front, SUSE Linux Enterprise Server supports 64-bit operation, which allows the HIS application to access much larger memory spaces than was possible with the previous 32-bit operating system. As a result, the solution can scale more easily to meet the needs of the growing user-base.

Results
By running the HIS application and Oracle databases on SUSE Linux Enterprise Server, Neusoft Wuhan has been able to increase the performance of the environment by 30 to 50 percent.

"Faster performance increases user satisfaction, and helps hospital staff provide a more efficient service to patients," said Mr. Zhenyan Xia. "In fact, the performance is so good that there is effectively spare capacity on our existing hardware, which will be used to support additional users as the solution grows."

Since SUSE Linux Enterprise Server is based on open source Linux technologies, the licensing, maintenance and support costs are also significantly lower than a traditional proprietary operating system.

"We estimate that the total cost of implementing SUSE Linux Enterprise Server for Xiangfan Central Hospital was up to 50 percent less than that of a proprietary operating system," says Mr. Zhenyan Xia. "Going forward, the ability to maintain excellent performance on commodity hardware should also help to keep costs low."

The new environment has experienced no unplanned downtime in the four months since its go-live date, and the reduced need for patching means that planned maintenance periods are shorter and less frequent. As a result, total availability has increased.

"The new environment is easier to manage, and its stability means that we don't spend as much time on maintenance," said Mr. Zhenyan Xia. "Overall, our operational efficiency has increased by 10 to 15 percent as a result—which helps us offer a better-value service to our client. Now that we have proven the effectiveness of SUSE Linux Enterprise Server in the healthcare industry, we are planning to recommend this solution to clients in many other sectors."