Healthcare | China

Accelerating access to patient data

Zhongda Hospital Southeast University

To break down data silos and help staff work more efficiently, Zhongda Hospital Southeast University replaced disparate systems with a centralized infrastructure based on Lenovo ThinkServer and ThinkSystem storage technology.

1 Customer background

Who is Zhongda Hospital Southeast University?

Zhongda Hospital Southeast University is a large, comprehensive, tertiary-level Class A hospital in China, integrating medical treatment, teaching, and scientific research. Located in Nanjing, Jiangsu Province, the hospital has a total of 2,500 beds and treats around 1.8 million patients each year. It is the only university-affiliated hospital in Jiangsu Province that is part of the Ministry of Education's '985' and '211' projects—government-sponsored development schemes to create world-class higher education institutions.

2 The challenge

Committed to providing high-quality, efficient, and convenient healthcare services to the people of Nanjing, Zhongda Hospital Southeast University continuously invests in the latest medical and information technologies. For example, the organization's data-driven healthcare solutions include a hospital information system (HIS), laboratory information system (LIS), electronic medical records (EMR), and picture archiving and communication system (PACS).

Previously, these systems ran on disparate platforms across the hospital's three campuses. This made it difficult to share data between systems, resulting in information silos. To ensure the smooth running of its core hospital management systems, the hospital looked to centralize and modernize its IT infrastructure.

“We wanted to open up data to improve collaboration and efficiency, which will ultimately support better patient care.”

Jiao Yun

Director of Network Information Center,
Zhongda Hospital Southeast University

3 The solution

Deploying a fresh IT platform

Zhongda Hospital Southeast University built a brand-new IT infrastructure based on Lenovo ThinkServer SR660 V2 and Lenovo WenTian WR5220 G3 servers, ThinkSystem DM5100F SAN storage arrays, and ThinkSystem DXL3600 object storage arrays.

Virtualized with KVM, the servers and storage systems are deployed in an active/active configuration in three data centers across two campuses. This high-availability platform supports the hospital's core HIS, LIS, EMR, and PACS systems, along with many other non-critical business applications.

Hardware

Lenovo ThinkServer SR660 V2 Server
Lenovo WenTian WR5220 G3 Server (China only)
Lenovo ThinkSystem DM5100F SAN Flash Storage Array
Lenovo ThinkSystem DXL3600 Object Storage

Software

ONTAP storage management software

Services

Lenovo Installation Services

3 The solution

Smarter storage

The hospital's IT team worked closely with Lenovo to build a tiered storage architecture. Frequently accessed 'hot' data is stored on all-flash Lenovo ThinkSystem DM5100F SAN storage arrays, while less frequently accessed 'cold' data, such as X-ray, CT, and MRI medical scans, resides on Lenovo ThinkSystem DXL3600 object storage arrays.

"Lenovo worked with us to set up auto-tiering policies, so that data is automatically moved to the most appropriate storage platform," says Jiao Yun. "This has significantly improved the efficiency of managing PACS data, where file sizes are very large."

4 The results

Zhongda Hospital Southeast University's Lenovo infrastructure consolidates all system resources into a centralized resource pool—eliminating information silos, accelerating access to patient data, and simplifying management.

Since refreshing its IT infrastructure, Zhongda Hospital Southeast University has increased the performance and availability of its core business systems by 40% and 50% respectively.

Thanks to the active/active configuration of the Lenovo infrastructure, data is replicated across the three data centers in real time. This ensures seamless failover in the unlikely event of hardware failure at one site, enabling the hospital to keep patient services running smoothly.

- 40% increase in performance
- 50% increase in availability
- Faster access to patient data

“With patient data stored centrally on the Lenovo infrastructure, staff can get the information they need much more quickly. Shorter waiting time improves the user experience and **helps staff to work more efficiently to deliver patient care**.”

Jiao Yun

Director of Network Information Center, Zhongda Hospital Southeast University

Why Lenovo?

To support such a major infrastructure upgrade project, Zhongda Hospital Southeast University looked for a vendor with proven expertise and reliable hardware. Lenovo has helped many hospitals in China with similar infrastructure projects. “To us, Lenovo represented a safe pair of hands,” says Jiao Yun. “It was reassuring to see how many hospitals trust Lenovo technology to run their mission-critical systems.”

How can hospitals ensure timely access to patient data?

With Lenovo ThinkServer and ThinkSystem storage technology, Zhongda Hospital Southeast University makes it faster and easier for staff to find patient information.

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