Smart hospital lifts patient services to new heights.

How **Jiaxing Kaiyi Hospital** used Lenovo ThinkAgile HX and ThinkSystem solutions to deliver outstanding patient experiences at a brand-new, data-driven healthcare center.

Lenovo Infrastructure Solutions for The Data-Centered

Lenovo

1

Background

Part of the Columbia Medical Group, Jiaxing Kaiyi Hospital is a newly constructed tertiary hospital in northern Zhejiang Province, China. With 500 beds, 12 operating theaters, and three delivery rooms, the hospital offers a comprehensive range of services and specialties, including emergency medicine, radiology, ear, nose and throat, and more.

For hospitals across China, delivering on the complex care needs of an aging population while keeping costs under tight control is a key objective. In the city of Jiaxing, Columbia Medical Group operates healthcare centers that provide vital care services to thousands of citizens each year. To meet the growing requirements of the province, the group has invested over US$159 million to complement its two existing hospitals with a new, state-of-the-art facility: Jiaxing Kaiyi Hospital.

2

Challenge

The new hospital has been designed from the ground up to take advantage of the latest digital innovations in patient care. As well as 5G-enabled operating theaters for telesurgery, the new site harnesses Internet of Things (IoT) technology to drive automated dispensing cabinets, and the distribution and collection of medical clothing.

To support patients and staff at Jiaxing Kaiyi Hospital, Columbia Medical Group aimed to use healthcare and laboratory information systems to shape seamless digital workflows, and make patient data securely accessible via desktops and mobile devices. By putting accurate, timely information at clinicians' fingertips, the organization aimed to facilitate high-quality patient experiences and outstanding care outcomes.

Because digital capabilities would be at the very heart of the new hospital, the group knew that it would be crucial to find an infrastructure platform that could meet its demanding service-level requirements. As well as rock-solid reliability and high performance, the group targeted a platform that would be straightforward to manage and easy to scale—helping to accommodate long-term data growth and future service innovations.

"Jiaxing Kaiyi Hospital has more than 70 digital systems, including everything from patient appointments to anesthesia and intensive-care monitoring. Delivering round-the-clock availability for these systems is crucial to the smooth running of the new hospital, and we looked for a vendor who could deliver on our stringent requirements."

Lin Hua,
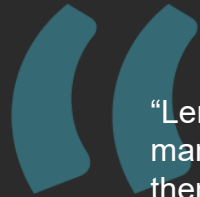Director of Information Department, Jiaxing Kaiyi Hospital

Why Lenovo? Best-in-class reliability with high performance.

After an in-depth vendor evaluation and selection process, the group chose Lenovo to provide the IT infrastructure for Jiaxing Kaiyi Hospital. To support the Oracle databases that drive its healthcare information systems, the group deployed three Lenovo ThinkSystem SR860 servers configured for high availability using Oracle Real Application Clusters (RAC).

To host its external applications such as its website, the group has embraced a hyperconverged infrastructure based on five Lenovo ThinkAgile HX5520 appliances, connected to two Lenovo ThinkSystem DM5000H Unified Hybrid Storage Arrays. Using SnapMirror disaster recovery technology and the Veeam Backup & Replication solution, the organization can help ensure that vital data is protected 24/7. With Lenovo XClarity and Nutanix Prism software, the hospital can manage its hyperconverged compute and storage resources as a single pool—enabling easy management and seamless scalability.

To integrate the environment, the group uses four Lenovo ThinkSystem NE1032 RackSwitches for internal and external networking. The organization also deployed two Lenovo RackSwitch G7052 solutions to act as a management network for the cluster, with two Lenovo ThinkSystem SR650 servers providing a network resource pool that reserves bandwidth for its VMware vSphere virtual machines.

"Lenovo hyperconverged infrastructure is recognized for its performance, scalability, and manageability in China and around the world. Lenovo's excellent global reputation made them the clear choice."

Lin Hua,
Director of Information Department,
Jiaxing Kaiyi Hospital

Effective partnership.

By joining forces with infrastructure experts from Lenovo Professional Services, Columbia Medical Group successfully provisioned the new IT platform to support next-generation healthcare services at its brand-new Jiaxing Kaiyi Hospital.

"We were looking for an architecture that combines agility for our virtual machines and stability for our Oracle databases, which underpin our core healthcare information systems," says Lin Hua. "The combination of traditional Lenovo ThinkSystem servers and storage, and the Lenovo ThinkAgile HX platform delivers just that."

Throughout the deployment process and beyond, the Lenovo team was on hand to provide the guidance, support, and technical services that the group needed to make its implementation project a resounding success. The new infrastructure is now hosted at a dedicated primary and disaster recovery data center at Jiaxing Kaiyi Hospital, occupying 16 cabinets across an area of around 100 square meters.

"Lenovo worked with us closely to help us architect, size, and configure our hyperconverged infrastructure. Lenovo went the extra mile to understand our goals around the patient experience, and design a solution that will support our digital healthcare initiatives now and in the future."

Lin Hua,
Director of Information Department,
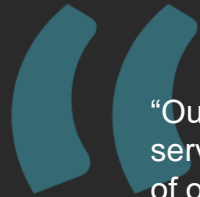Jiaxing Kaiyi Hospital

(3)

Results

With Jiaxing Kaiyi Hospital now open to the public, the Lenovo solutions are already contributing to outstanding care experiences for patients from across Jiaxing.

Thanks to its active-active architecture, the hyperconverged infrastructure is designed to run without interruption 24/7, helping to ensure that mission-critical digital healthcare systems are always available to patients and clinicians. And with ease of management built in, the platform frees the hospital's IT team to spend less time on routine maintenance tasks and more time on service innovation.

COLUMBIA

✓ **Enables high-performance for cutting-edge digital healthcare technologies, contributing to high-quality patient experiences**

✓ **Allows straightforward scalability, supporting future growth in data volumes and innovative digital use cases**

✓ **Delivers dependable, always-on availability, helping to ensure vital clinical systems are online 24/7**

"Our Lenovo solutions are a key enabler of our pioneering data-driven healthcare services at Jiaxing Kaiyi Hospital, and we are extremely pleased with the performance of our hyperconverged infrastructure."

Lin Hua,
Director of Information
Department,
Jiaxing Kaiyi Hospital

What will you do with Lenovo infrastructure solutions?

When you find the right cloud strategy for your business and go from data center, to Data-Centered, your team can do more than ever before.

Explore Cloud Solutions

Lenovo