

# Streamlining the patient experience from end-to-end.

How Huguan County People's Hospital used a hyperconverged infrastructure solution from Lenovo and VMware to offer a fast, simple, and seamless electronic billing process for every patient.

Lenovo Infrastructure Solutions  
for The Data-Centered

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## Background

Founded in 1945 in Shanxi Province, China, Huguan County People's Hospital (HCPH) is a large hospital that combines in- and outpatient care with teaching, scientific research, preventive medicine, and rehabilitation services. Employing 280 people, the hospital has over 200 beds and is currently building a brand-new medical facility at a second site in Huguan County.

HCPH strives to provide outstanding care to residents across Shanxi Province. Like many leading healthcare organizations, the hospital relies on its healthcare information system (HIS) and laboratory information system (LIS) to store and deliver patient data to its clinicians—enabling rapid decision-making.

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## Challenge

Although its healthcare information management systems were digitized and integrated, HCPH's patient billing process was still dependent on manual, paper-based processes. To help enhance the end-to-end patient experience—and as part of a nationwide initiative by the Ministry of Finance, the National Health Commission, and the National Medical Security Administration—HCPH aimed to move to electronic billing.

As well as enabling a faster, simpler, and more convenient service for patients at the end of their treatment, the new approach to billing promised to cut the complexity of back-office processes at HCPH, saving time and money. Moreover, by reducing the need to print, distribute, and archive paper records, the hospital aimed to shrink its environmental footprint.

To support its digital systems, HCPH relied on a traditional, three-tier architecture. The platform was approaching end-of-life, and the hospital recognized that the existing environment would be unable to accommodate the increased compute and storage demands of the planned electronic billing solution.

At the same time, the imminent opening of a second hospital site in Huguan County was set to increase demand for HCPH's existing digital systems significantly. To support digital services for the new hospital and enable electronic billing for all patients, HCPH decided the time was right to invest in a new, future-ready infrastructure platform.



“In addition to satisfying our immediate compute and storage requirements, we were looking for a solution that would give us the headroom for other data-driven initiatives over the next five years. For that reason, stellar performance, scalability, and reliability were all key criteria for a new infrastructure platform.”

**Li Qingjun**

Director of Information Technology Function, Huguan County People's Hospital





## Why Lenovo? Proven technology and a trusted partner.

After considering proposals from a number of technology vendors, HCPH selected a cutting-edge hyperconverged infrastructure from Lenovo as its new, central IT platform. Based on four Lenovo ThinkAgile VX3320 appliances with industry-leading hyperconverged infrastructure software from VMware, the new solution uses VMware vSAN®, VMware vSphere®, and Lenovo XClarity to create a single, easy-to-manage pool of virtual compute and storage resources.

Networked with Lenovo ThinkSystem NE1032 RackSwitches, HCPH plans to deploy an identical configuration of the solution at a dedicated disaster recovery site in its new hospital. Once the new data center is ready, the company will replicate its production systems to the disaster recovery site, helping it to protect sensitive data and rapidly restore data-driven healthcare services in the event of a recovery scenario.



“We had been using Lenovo servers in our data center for several years prior to this project, and our experience with Lenovo’s technology and services has always been excellent. That trusted partnership, combined with the quality of the Lenovo and VMware hyperconverged infrastructure platform, gave us the confidence we’d made the right choice in selecting the ThinkAgile VX based solution.”

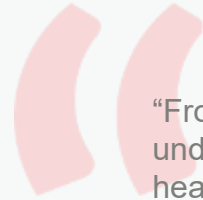
**Li Qingjun**

Director of Information Technology Function, Huguan County People's Hospital

## Preparing for the future, together.

Working closely with an expert team from Lenovo, HCPH deployed its new IT platform at the data center in its main hospital in Huguan County. The two companies are now working together to migrate services from the legacy, three-tier infrastructure to vSAN, VMware's hyperconverged solution. Once the process is complete, the hospital will decommission the heritage servers, helping to reduce its power and maintenance costs significantly.

To support future digital healthcare services, HCPH can scale out its Lenovo ThinkAgile VX3320 appliances rapidly, cost-effectively and with minimal manual effort. Adding compute and storage resources is as simple as connecting new nodes to the system—a process that can take as little as 30 minutes to complete.



“From the start, Lenovo demonstrated an in-depth understanding of the long-term direction for healthcare information management. Lenovo delivered an infrastructure solution tailored to our real-world clinical requirements, and we are delighted with the results of our collaboration.”

### **Li Qingjun**

Director of Information Technology Function,  
Huguan County People's Hospital

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## Results

With a modern, high-performance, and digital infrastructure at the foundation of its digital healthcare services, HCPH has achieved its goal of switching to electronic billing—empowering the hospital to offer a seamless patient experience from end-to-end. As well as ensuring compliance with the requirements of the Ministry of Finance, the National Health Commission, and the National Medical Security Administration, the new billing solution is projected to reduce back-office costs, redirecting investment for front-line services.

Equally importantly, the Lenovo servers and VMware's vSAN solution will allow patients at HCPH's new hospital to benefit from high-quality digital services. The organization is confident that the hyperconverged platform will support the increase in IT workloads with ease from the moment the new hospital opens its doors—and offer a scalable platform for further digital innovation in the years to come.

✓ **Creates compute and storage headroom for electronic billing and new digital services**

✓ **Enables cost-effective scalability**

✓ **Cuts the complexity of infrastructure management and maintenance**





“Every year, our digital systems become a more important part of our overall healthcare delivery strategy. We are now working with Lenovo to enhance our disaster recovery capabilities—helping us to ensure that our clinicians always have the data they need to deliver high-quality patient care.”

**Li Qingjun**

Director of Information Technology Function, Huguan County People's Hospital

# What will you do with Lenovo ThinkAgile VX solutions?

The Data-Centered deliver digital healthcare services with  
Lenovo smarter infrastructure solutions, powered by VMware.

[Explore Lenovo ThinkAgile VX Solutions](#)



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