

Developing breakthrough medical treatments.

How **Shenyang Pharmaceutical University** uses Lenovo ThinkAgile solutions to support research into cutting-edge medicines.

Lenovo Infrastructure Solutions
for The Data-Centered

Lenovo

1

Background & Vision

A world leader in pharmacology, toxicology, and pharmaceuticals, Shenyang Pharmaceutical University (SPU) provides higher education to 8,093 undergraduate and 2,768 postgraduate students at its Shenyang and Benxi campuses in Liaoning Province, China.

At its two post-doctoral research stations, SPU focuses on using multi-disciplinary approaches and innovative technologies to create next-generation treatments. The university has broken new ground in the search for solutions to many health problems and led various clinical trial programs.

2

Challenge

In 2016, SPU opened a new campus in the ‘China Pharmaceutical Capital’—part of the Benxi High-Tech Development Zone. Traditionally, the university relied on a three-tier multivendor infrastructure, but this approach led to many problems, including the buildup of information silos and poor server utilization.

Each system had to be managed individually, creating a huge and complex workload for SPU’s IT maintenance team. As many servers were now more than five years old, repair costs increased every year, while identifying the source of hardware failures was difficult. Storage performance and scalability were limited, with a single point of failure in some arrays heightening the risk of downtime. To solve these challenges, SPU aimed to optimize data center operations at the new campus.



Why Lenovo? Superior stability, security, and ease of use.

To form a robust, scalable infrastructure for the Benxi site, SPU selected a hyperconverged infrastructure (HCI) based on three Lenovo ThinkAgile HX5520 appliances, which combine best-in-class Nutanix virtualization software with enterprise-grade Lenovo hardware.

After evaluating several vendors, SPU pinpointed Lenovo as the standout for stability, ease of use, and data security—an important consideration in pharmaceutical research. "Lenovo scored highest in our assessment for key criteria such as reliability, availability, and serviceability, which inspired high levels of trust," explains Yunfei Zhao, Director of Network Center at SPU.



Harnessing a modern, agile hyperconverged platform.

SPU uses the Lenovo ThinkAgile platform to run several key applications, including its pharmaceutical engineering solution, mail systems, and core databases. The integrated platform helps to eliminate data silos, enabling greater collaboration and information sharing.

The Lenovo ThinkAgile solution also provides advanced security capabilities that minimize the risk of data loss, along with sophisticated virtualization tools that accelerate deployment of new services and optimize server utilization. “One of the biggest advantages of the Lenovo platform is that it now only takes a few minutes to create a new virtual machine,” adds Yunfei Zhao.

3

Results

The Lenovo ThinkAgile platform is now helping SPU to keep its teaching and research programs on track for success. The flash storage configuration enhances performance and ensures low application response times for users, while the fault-resistant solution design improves storage uptime and safeguards business continuity.

The hyperconverged architecture also simplifies tasks for SPU's IT team, who now manage a single platform rather than a complex tangle of servers. "As a result, we expect to reduce maintenance costs by 50% compared to our previous infrastructure," says Yunfei Zhao. "The scalable solution will also enable seamless expansion to accommodate application growth, without needing new hardware—leading to up to 35% capital cost-avoidance on future expansion initiatives."

In addition, SPU believes built-in data compression and deduplication functionality will reduce floorspace requirements by 50% compared to its traditional architecture. Preventing hardware sprawl will help to optimize overall data center efficiency and contribute to significantly lower power and cooling costs.



✓ **50% lower management costs thanks to the simplified solution architecture**

✓ **35% capital cost-avoidance on future expansion initiatives**

✓ **50% reduction in floorspace requirements, helping to slash power and cooling costs**

✓ **Accelerates provisioning of virtual machines, cutting time-to-market for new services**



“Our work with Lenovo is helping us to drive forward our research into new treatments, while educating the next generation of pharmaceutical leaders.”

Yunfei Zhao,
Director of the Network Center,
Shenyang Pharmaceutical
University

What will you do with Lenovo ThinkAgile solutions?

Made for easy deployment and manageability, the ThinkAgile HX series combines Nutanix software with reliable, high performing hardware.

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