



Automotive

# Speeding ahead in the EV marketplace

Huaihai Holding Group

To meet booming global demand for small, economical vehicles, Huaihai Holding Group is ramping up production, supported by integrated business systems running on Lenovo ThinkAgile VX7520 Appliances powered by 2nd Gen Intel® Xeon® Scalable processors.

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Lenovo

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## Who is Huaihai Holding Group?

Founded in 1976 and headquartered in Xuzhou, China, Huaihai Holding Group is a specialist producer of small vehicles, including electric tricycles, electric bikes, motorcycles, electric vehicles (EV), and related accessories. With more than 40 years of industry experience, the company operates 13 wholly owned subsidiaries and manufacturing facilities in China, Pakistan, India, Chile, and Peru.

One of the world's largest manufacturers of small vehicles, Huaihai Holding Group employs 7,000 people and has shipped more than 23.8 million units since it was established. The company's marketing network spans 108 counties and regions around the world, and it has maintained first-place for production and sales volumes in the industry for 17 consecutive years. Today, Huaihai Holding Group ranks among the Top 500 Private Enterprises in China and the Top 100 Companies in Jiangsu Province.



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## The Challenge

Huaihai Holding Group specializes in environmentally friendly transportation solutions—valuable for remote areas where transporting fuel is difficult as well as built-up areas with strict controls on fossil fuel emissions. Demand for electric vehicles is growing fast, and the company aims to capture the opportunities by scaling its operations and unlocking new efficiencies in its production, logistics and supply chain processes.

Each year, approximately 1.8 million vehicles roll off Huaihai Holding Group's production lines all over the world. Every order represents a carefully choreographed flow of business processes, and the organization relies on a wide range of digital systems to help orchestrate its business efficiently at scale.



**“The sheer size of our business means that it would not be feasible to manage workflows manually. We rely on technologies such as enterprise resource planning [ERP], manufacturing execution systems [MES] and business intelligence [BI] to augment our workforce.”**

**Wang Ning**

Head of IT and Digitalization, Huaihai Holding Group

As part of its long-term growth strategy, Huaihai Holding Group has embarked on a digital transformation. The initiative will replace multiple BI, R&D and HR platforms deployed across the group with a single, shared set of solutions—improving data-sharing, facilitating collaboration, and driving efficiency. In parallel, the group is standardizing on a single ERP platform for its domestic and international businesses: SAP ERP for its companies in China, and Oracle ERP for all other regions.

In the past, Huaihai Holding Group relied on a traditional three-tier data center infrastructure to deliver around 100 digital services to the business. However, the existing servers and storage arrays were approaching end-of-life, and there was limited space available in the data center for further expansion. To support the transformation program, the company targeted a fresh approach.



**“Whenever I went into our data center, I was struck by how noisy and cramped it was. The room was stacked full of servers, and power consumption was very high. To enable the digital transformation initiative, we looked for a more compact and efficient solution.”**

**Wang Ning**

Head of IT and Digitalization, Huaihai Holding Group

# On the road to hyper- convergence

To build a solid platform for a new generation of business systems, Huaihai Holding Group selected a hyperconverged infrastructure (HCI) solution from Lenovo. Built on VMware software, the new platform is based on three Lenovo ThinkAgile VX7520 appliances, populated with 30 nodes powered by 2nd Gen Intel® Xeon® Scalable processors.

Pre-configured with VMware vSAN and VMware vSphere, the HCI solution enables straightforward management of compute, storage, and networking resources from a single point of control via Lenovo Software Defined Infrastructure (SDI) Management Platform and Lenovo XClarity Administrator—helping to reduce the need for manual management tasks.

## Hardware

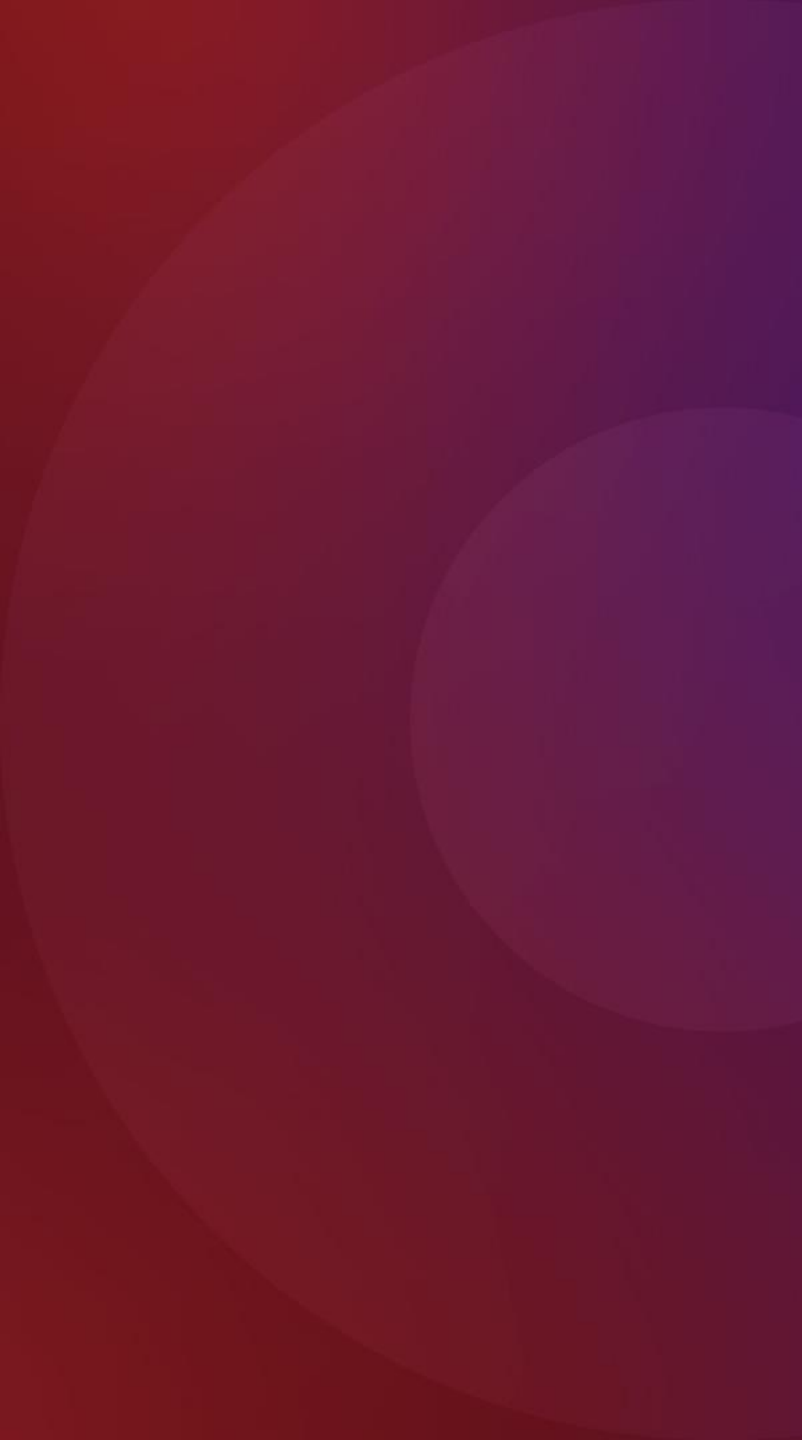
Lenovo ThinkAgile VX7520  
with 2nd Gen Intel® Xeon®  
Scalable processors

## Software

Lenovo Software Defined  
Infrastructure Management Platform  
Lenovo XClarity Administrator  
VMware vSAN  
VMware vSphere

## Services

Lenovo On-site Services –  
Deployment  
Lenovo Post Warranty Services



“With the new HCI solution, provisioning and managing new environments for the business is far faster and easier,” comments Wang Ning. “In the past, it often took up to two working days to set up a new IT system. Today, we can provision a new virtual environment in less than two hours—95% faster—which enables us to be a more agile partner to the business.”

The Lenovo platform also empowers Huaihai Holding Group to ensure that mission-critical financial systems are online around the clock. Wang Ning elaborates: “In our previous environment, the failure of an individual production server would practically guarantee a service interruption. With HCI from Lenovo, VMware, and Intel, our high-availability configuration helps ensure that our systems will run and run, even if individual components fail.”





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“Lenovo offered us an excellent service, from the initial evaluation to the deployment and beyond. We were impressed by how responsive and attentive the Lenovo team was to our needs, and we greatly appreciated the advice and best practices that they shared with us.”

**Wang Ning**

Head of IT and Digitalization, Huaihai Holding Group

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## Results

Thanks to high-performance Intel® Xeon® Silver 4216 processors at the heart of its Lenovo ThinkAgile solution, the organization now has the compute resources to deliver on its digital transformation vision.

“Even though we have significantly increased our compute, storage and networking capacity, we’ve shrunk the physical footprint in our data center and reduced IT management requirements by 1.5 full-time equivalents,” says Wang Ning. “By embracing a HCI platform, we can deliver vital digital services to the business 24/7 while slashing the time we spend on operation and maintenance tasks by 60% and reducing costs by 20%.”<sup>1</sup>



95% faster provisioning of new virtual environments



60% reduction in IT maintenance tasks



20% lower IT operational costs

<sup>1</sup>Data provided by Huaihai Holding Group



Huaihai Holding Group has also boosted CPU utilization by 20%<sup>2</sup>, allowing it to utilize its IT resources efficiently. When the time comes to scale out the solution, Huaihai Holding Group is confident that the process will be straightforward.

“Our Lenovo ThinkAgile appliances have a distributed architecture, which means we can scale non-disruptively simply by adding new nodes to the cluster,” explains Wang Ning. “It gives us great peace of mind to know that we can increase the capacity and performance of our HCI environment rapidly—especially as we plan our upgrade to the next-generation ERP platform, SAP S/4HANA.”



**“Thanks to our HCI solution from Lenovo and Intel, we are building integrated business systems that will help accelerate our global growth and bring sustainable transportation to millions more people around the world.”**

**Wang Ning**

Head of IT and Digitalization, Huaihai Holding Group

<sup>2</sup>Data provided by Huaihai Holding Group

# Why **Lenovo**?

After reviewing traditional and HCI offerings from leading vendors, Huaihai Holding Group selected Lenovo and Intel based on the quality of their solutions and the reach and responsiveness of their support.

“Our digital transformation means that IT is under more pressure than ever to deliver stability, security, agility and elastic scalability for the business,” says Wang Ning.

“Building our new IT platform on Lenovo ThinkAgile VX7520 appliances—powered by 2nd Gen Intel® Xeon® Scalable Processors—empowers the business to achieve its goals.”

Huaihai Holding Group was also impressed by the cost-effectiveness of the Lenovo and Intel solution. Wang Ning adds: “Lenovo SDI Management Platform and XClarity Administrator offer us excellent value. By automating routine management tasks, we substantially reduce IT department workload, which means we can focus on supporting the business through the ongoing transformation effort.”



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