



Computer Services

# Fueling technological innovation

Beijing China HPC

To meet growing demand for its powerful compute resources, Beijing China HPC enhanced its HPC cloud services with Lenovo ThinkSystem SR650 servers, powered by 2nd Gen Intel® Xeon® Scalable processors—driving pioneering research and economic growth.

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Lenovo

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## Who is Beijing China HPC?

Established in 2013, Beijing China HPC provides supercomputing resources for academic research, industrial innovation, and government agencies. Founded by experts from the Beijing Computing Center and the Chinese Academy of Sciences Supercomputing Center, Beijing China HPC is committed to delivering world-class research and development as well as manufacturing and operational excellence.

Beijing China HPC is home to the “China HPC cloud”—a high-performance computing (HPC) platform developed to support artificial intelligence (AI), machine learning (ML) and big data analysis. Located in Inner Mongolia, Beijing China HPC is one of eight HPC hubs in the country and plays a crucial role in China’s “Eastern Data, Western Computing” initiative, which seeks to ensure that researchers and businesses in every province can access best-in-class HPC resources.



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## The Challenge

Pioneers in industrial design and remote sensor solutions as well as metrologists and geologists rely on HPC resources to make new discoveries. In turn, these innovations will play a huge role in economic development throughout China.

Beijing China HPC provides researchers and business users with agile, low-cost software as a service (SaaS) and Desktop as a Service (DaaS) HPC solutions. And with data volumes increasing year-on-year, more organizations now rely on the company's HPC resources to support their research. To meet growing demand for its services, Beijing China HPC set out to scale up the China HPC Cloud and started looking for a technology partner to support this initiative.



**“Cutting-edge high-performance computing is a key ingredient for successful digital transformation across all sectors. We’re proud of our track record of supporting world-class research and we work around the clock to bring the very best resources to academics and industry leaders.”**

**Bai Yang**  
CEO, Beijing China HPC

# Scaling to meet **huge demand**

To enhance system performance and support larger AI, ML and big data workloads, Beijing China HPC expanded the China HPC Cloud by deploying sixty Lenovo ThinkSystem SR650 servers, powered by 2nd Gen Intel® Xeon® Scalable processors.

The China HPC Cloud cluster now comprises 4,000 nodes alongside a storage environment with a capacity of 20 petabytes. With support for up to eight GPUs per server, Lenovo ThinkSystem SR650 solutions provide a huge uplift in processing power.

To boost flexibility and reduce costs, Beijing HPC signed up for Lenovo TruScale Infrastructure Services. Through this service, the organization gains access to best-in-class hardware, but only pays for the resources it uses through a pay-as-you-go agreement.

## **Hardware**

Lenovo ThinkSystem SR650 powered by 2nd Gen Intel® Xeon® Scalable processors

## **Services**

Lenovo Infrastructure-as-a-Service (IaaS)  
Lenovo Post Warranty Services  
Lenovo TruScale Infrastructure Services



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“Our recent development of the China HPC Cloud platform marks the first time we’ve included Lenovo solutions in our architecture. It was clear from the excellent benchmarks of the Lenovo servers that Lenovo would be the perfect partner for our HPC expansion project.”

**Bai Yang**

CEO, Beijing China HPC

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## Results

With Lenovo ThinkSystem SR650 servers providing increased compute capacity and greater performance, Beijing China HPC is perfectly placed to support even the most sophisticated computational tasks.

Bai Yang explains: “Developing the China HPC Cloud with Lenovo solutions means that we are now able to scale up our resources to support clients’ growing workloads—whether that’s pioneering meteorological research or first-of-a-kind machine learning algorithms. As a result, we can continue to play an instrumental role in digital transformation and technological innovation across China.”



Boosts performance to support complex HPC workloads



Reduces capital expenditure and business risk



Empowers Beijing China HPC to drive technological innovation across sectors



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“By expanding our HPC resource, we can support larger, more complex workloads and, ultimately, contribute to digital transformation across China.”

**Bai Yang**  
CEO, Beijing China HPC

# Why **Lenovo**?

To ensure long-term business stability, Beijing China HPC looked for a technology provider it could trust to deliver expert support and guidance in the years ahead.

“As well as offering reliable, performant and highly flexible hardware, Lenovo provides excellent on-demand infrastructure services,” says Bai Yang. “Considering the size and scale of our HPC operations, knowing that we can rely on a technology partner with decades of experience in the field provides added confidence.”

Bai Yang adds: “With the flexible payment agreement from Lenovo we can deliver world-class services to our clients, without having to take on significant capital risk. With lower capital investment costs, we also keep more resources available to dedicate to enhancing our services and pushing the frontiers of scientific research and industrial development.”



# What new insights will you discover with HPC?

Driving cutting-edge innovation and powering economic growth with Lenovo and Intel® technology.

Explore Lenovo HPC Solutions

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