Manufacturing | Taiwan

Unlocking AI for R&D

Sunplus Innovation Technology Inc.

To supercharge its research and development efforts with AI, Sunplus Innovation Technology deployed Lenovo ThinkSystem servers, powered by AMD EPYC™ 7003 Series processors, and ThinkSystem storage—giving the company the capacity and performance to harness new AI applications.

1 Customer background

Who is Sunplus Innovation Technology?

Sunplus Innovation Technology Inc. develops and manufactures microcontrollers and system-on-chip integrated circuits (ICs) with embedded software solutions. Based in Hsinchu Science Park, Taiwan, the company specializes in IC solutions for human interface devices such as keyboards, mice, and touchscreens, PC external hard disk and optical disc drives, and camera and industry controllers.

Sunplus Innovation Technology is a spinoff from Sunplus Technology Co., Ltd.—a leading IC provider for multimedia and automotive applications such as DVD players, home entertainment audio products, car infotainment, and advanced driving assistance systems.

SunplusIT

2 The challenge

ICs have become indispensable to modern life. From communication systems and consumer goods to healthcare and automotive applications, ICs are the building blocks of modern electronics.

To keep its products at the leading edge of innovation, Sunplus Innovation Technology is always looking to advance its research and development (R&D) capabilities. The company is currently exploring how best to harness AI to support its R&D processes. To enable the new AI capabilities, Sunplus Innovation Technology looked to upgrade the IT infrastructure underpinning its R&D environment.

“To take advantage of **AI for generative design and visual quality inspection**, for example, we first needed to beef up our infrastructure. We would need much more **computing power** and much more **storage capacity**.”

System Manager

Sunplus Innovation Technology Inc.

3 The solution

AI-ready infrastructure

Sunplus Innovation Technology teamed up with Lenovo and Lenovo Gold Partner AUSenior to refresh its R&D infrastructure.

The joint team implemented 20 Lenovo ThinkSystem SR645 servers, powered by AMD EPYC™ processors and virtualized with VMware, and a Lenovo ThinkSystem DM5000H unified hybrid storage array.

Hardware

Lenovo ThinkSystem SR645 Server powered by AMD EPYC™ 74F3 processors
Lenovo ThinkSystem DM5000H Unified Hybrid Storage Array

Software

VMware vSphere

3 The solution

“Lenovo and AUSenior also supported the migration of our R&D systems to the new environment, which went very smoothly,” recalls the company’s system manager. “Having their support throughout the entire process—hardware installation, configuration, and migration—gave us peace of mind.”

> **“Lenovo ThinkSystem technology gives us the powerful compute and storage resources we need to take our first steps with AI.”**

System Manager

Sunplus Innovation Technology Inc.

4 The results

Since moving its R&D workloads to Lenovo, Sunplus Innovation Technology has significantly increased compute and storage capacity. Shortly after installing the new solution, the IT team ran a test job on the old and new infrastructure and found that it ran up to 50% faster, improving productivity by up to 30%.

“We’ve reduced data loading times, accelerated simulation times, and generally improved the performance of R&D workloads, so we are delighted with the move to Lenovo and AMD technology,” says the system manager. “Crucially, we have laid a strong foundation for the adoption of AI applications that will help us to improve chip designs, shorten development cycles, and reduce time to market.”

- Up to 50% performance improvement
- Up to 30% improvement in productivity
- 20% reduction in IT maintenance

“We’ve been running R&D workloads on Lenovo ThinkSystem infrastructure for two years now, and we’re so happy with the **performance and reliability** of the hardware.”

System Manager

Sunplus Innovation Technology Inc.

Why Lenovo and AMD?

For Sunplus Innovation Technology, Lenovo's reputation for reliability was an important deciding factor. "We place huge importance on R&D, so it is vital that these workloads run reliably," notes the system manager. "We can depend on Lenovo ThinkSystem technology to keep R&D operations on track."

"Of all the solutions we considered, the Lenovo ThinkSystem SR645 server offered the best price-performance ratio, thanks to the energy-efficient AMD EPYC 7003 Series processors. The AMD EPYC processors deliver excellent performance for our electronic design automation [EDA] simulation workloads."

How can manufacturers prepare to adopt AI?

By refreshing its R&D infrastructure with Lenovo and AMD, Sunplus Innovation Technology gained the capacity and performance needed to explore AI.

Explore Lenovo ThinkSystem Solutions