

Life Sciences | Taiwan

# BIOTOOLS invests in Lenovo HPC to advance next-gen sequencing

Biotoools Co., Ltd.

To support demanding DNA sequencing and analysis workloads, BIOTOOLS made a long-term investment in a high-performance computing (HPC) infrastructure based on Lenovo ThinkSystem SR850 servers, powered by 4th Gen Intel® Xeon® Scalable processors and backed by an extended warranty.



Lenovo

# 1

## Customer background

# Who is BIOTOOLS?

BIOTOOLS is the largest next- and third-generation sequencing service provider in Taiwan. The company provides microbiome-related research and metagenome sequencing, as well as next-generation sequencing (NGS) services such as RNA sequencing, single-cell RNA sequencing, Spatial transcriptomics, whole exome sequencing, whole genome sequencing, and metabolome analysis.

BIOTOOLS is dedicated to making next-generation sequencing more accessible, enabling advancements in research and clinical applications. The company focuses on enhancing understanding of microbiota dysbiosis and genetic disorders while empowering individuals to take a more active role in managing their health.

## 2 The challenge

Both next- and third-generation sequencing data analysis is highly computationally intensive. For sequencing service providers such as BIOTOOLS, robust high-performance computing (HPC) infrastructure is essential.

The substantial cost of high-end HPC servers represents a significant investment for any organization. For BIOTOOLS, as a small company operating in a niche market, managing the expense of HPC nodes presents an even greater challenge. To address this, BIOTOOLS prioritized investing in HPC infrastructure designed to deliver long-term reliability and scalability.

## 2 The challenge

Russell Yang, Chairman of BIOTOOLS, explains: “Our goal is to invest in technology that would provide long-term value. We focused on acquiring durable, high-quality servers equipped with the latest-generation CPUs and backed by an extended warranty.”

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**“The aim was to upgrade our HPC infrastructure with high-end servers capable of handling demanding sequencing workloads and ensuring reliable support for years to come.”**

**Chris Kuo**

Vice President, Biotoools Co., Ltd.

# 3 The solution

## Future-proof HPC infrastructure

BIOTOOLS found the ideal solution in the Lenovo ThinkSystem SR850 V3—a four-socket server that is densely packed into a 2U rack design, powered by 4th Gen Intel® Xeon® Scalable processors with built-in accelerators that help improve performance efficiency for emerging workloads.

To date, the company has deployed ten ThinkSystem servers to handle its demanding NGS workloads efficiently.

### **Hardware**

Lenovo ThinkSystem SR850 V3 powered by 4th Gen Intel® Xeon® Scalable processors

### **Software**

Lenovo XClarity Controller

### **Services**

Lenovo Warranty Upgrade

# 3 The solution

A key decision for BIOTOOLS was opting for an upgrade warranty service for the servers, extending the standard coverage to up to ten years. “Among all the vendors we evaluated, Lenovo offered the most extensive and comprehensive warranty and maintenance options,” says Chris Kuo, Vice President of BIOTOOLS.

“HPC infrastructure is a significant investment, so we wanted to invest in the best. The combination of reliable Lenovo hardware and powerful 4th Gen Intel Xeon Scalable processors is a big step up for us.”

**Russell Yang**

Chairman, Biotools Co., Ltd.

# 4 The results

Today, BIOTOOLS operates a high-end HPC infrastructure capable of handling the intensive demands of next- and third- generation sequencing data analysis. “The Lenovo ThinkSystem SR850 V3 servers have dramatically reduced analysis times,” says Kuo.

With the support of an extended hardware and firmware warranty, BIOTOOLS is confident in the long-term reliability of its servers. “By partnering with Lenovo to identify the optimal solution and extended warranty for our needs, we’ve established a robust, powerful, and future-proof HPC infrastructure,” notes Kuo.



Future-proof,  
high-end servers



Extended warranty  
upgrade



Long-term  
maintenance plan



**“We were impressed that Lenovo’s extended warranty options included firmware support as well as hardware.”**

**Chris Kuo**

Vice President, Biotools Co., Ltd.



# Why Lenovo?

For BIOTOOLS, Lenovo offered the most attractive long-term warranty options. “Many vendors only offer warranty support for up to six years, but Lenovo offers eight- and ten-year options,” says Kuo. “The reassurance that both the hardware and firmware are covered for such an extended period was a crucial factor in our decision, as this infrastructure upgrade is a long-term investment for our company.”

# How can biotech companies make the most of HPC investments?

BIOTOOLS builds a future-proof HPC infrastructure based on Lenovo and Intel® technology with a comprehensive extended warranty.

[Explore Lenovo HPC Solutions](#)



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