

# LCFC (Hefei) Electronics increases agility to meet surge in global demand

Laptop manufacturer LCFC boosts performance and scalability with hybrid cloud platform powered by hyperconverged infrastructure from Nutanix and Lenovo

A subsidiary of Lenovo, LCFC (Hefei) Electronics Technology Co., Ltd. manufactures one out of every eight laptops sold worldwide at its facilities in Anhui Province, China. LCFC is Lenovo's largest research and development (R&D) and production base globally, and the company has sold more than 180 million units since it was founded in 2011.

After partnering Nutanix and Lenovo, LCFC's business critical workloads like MES production workloads and R&D applications have recorded a performance increase by up to 30%. In addition, the company has also boosted business agility as it can now scale easily meet new business needs.



"By deploying Nutanix and Lenovo's hyperconverged infrastructure, we have the performance, scalability, and stability needed to support manufacturing on a massive scale."

- Hong Xiaojun, Senior Engineer, LCFC

## INDUSTRY

Manufacturing

## BENEFITS

- Just 10 seconds needed to launch a new virtual machine, faster time to market
- 30% performance increase of MES and R&D applications
- At least 20% savings from licensing costs

## SOLUTION

Nutanix Enterprise Cloud Platform

- Nutanix AOS storage
- Nutanix AHV hypervisor
- Nutanix Prism
- Lenovo ThinkAgile HX Series

## Applications

- MES workloads
- R&D applications

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## CHALLENGES

With more people working and learning remotely because of the COVID 19 pandemic, sales of laptops have soared. LCFC was quick to ramp up production to meet this surge in demand. But increasingly heavy application workloads placed huge strain on the company's traditional three tier infrastructure.

While most of LCFC's workloads are deployed in a private cloud environment, the company runs its most critical business applications manufacturing execution systems (MES) and R&D applications on premises because of the demanding CPU, RAM, storage, and IOPS requirements.

While the legacy on premises infrastructure was highly performant, it lacked flexibility: making it difficult to scale out quickly to support increased business volumes. Hong Xiaojun, Senior Engineer at LCFC, confirms: "our existing three tier infrastructure proved difficult and costly to expand. We wanted easy scalability without sacrificing performance or stability."

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## SOLUTION

To achieve seamless growth, LCFC chose to replace its three-tier data environment with Nutanix-Lenovo solution, featuring a hyperconverged infrastructure (HCI) platform powered by Nutanix.

First, LCFC worked with Lenovo to implement 12 Lenovo ThinkAgile HX5520 appliances, configured as two separate six node clusters, at its primary site in Hefei, China. One cluster supports MES workloads and the second runs R&D applications.

Next, the company implemented an additional three-node cluster at its Tapei site to support R&D activity there. "The deployment went very smoothly at both sites," says Hong Xiaojun. "We were impressed with the professionalism of the Lenovo team, which helped to ensure that everything was completed on schedule."

The Nutanix-Lenovo platform supported the company's heavy MES and R&D application workloads with ease. The largest MES application alone requires 64 GB memory and 16 cores at maximum peak demand.

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## CUSTOMER OUTCOMES

"HCI offers the best of both worlds: public cloud like automation and flexibility, and performance from on premises infrastructure," says Hong Xiaojun. "The simplicity of the Nutanix-Lenovo platform appealed to us. Nutanix Prism gives us visibility and control over our virtualized compute and storage resources, which we can allocate dynamically to meet peaks and troughs in demand," says Hong Xiaojun.

"It takes just 10 seconds to launch a new virtual machine—53% faster than before. If we need to expand capacity, it's as simple as connecting a new node to the cluster. And we can even integrate our HCI with public cloud providers such as Amazon or Alibaba to meet new business needs."

Besides gaining faster time to market, the company has also gained business agility as they are able to scale quickly to accommodate fast-changing market demands. Its core MES and R&D applications hosted on the Nutanix platform have also reported a performance increase by 30% since its migration to the new environment.

Another key benefit for LCFC was saving software licensing costs. By using Nutanix AHV hypervisors as opposed to other virtualization and hyperconverged solutions, LCFC saved 20% in licensing.

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## PARTNER

Lenovo is a Fortune Global 500 company serving customers in 180 markets around the world. Focused on a bold vision to deliver smarter technology for all, Lenovo is proud to be the world's largest PC vendor.

Lenovo's portfolio now includes workstations, servers, storage solutions, IT management software, smart TVs, tablets, smartphones, and even apps.



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