Manufacturing

# Building a platform for international growth

## SJ Semiconductor Corporation

With its existing three-tier architecture approaching capacity, SJ Semiconductor Corporation (SJSemi) teamed up with Lenovo and Nutanix to move its key business systems to a brand-new hyperconverged infrastructure platform— delivering the headroom for the next eight years of business growth.

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# Who is
# SJ
# Semiconductor
# Corporation?

Headquartered in Jiangyin, China, SJ Semiconductor Corporation (SJSemi) is a front-end chip manufacturer that delivers high-quality mid-stage silicon wafer manufacturing and testing services to global customers. Founded in 2014 and with operations in China and the United States, SJSemi's professional engineering team uses automated, high-end equipment to meet its customers' testing needs.

**SJSEMI**

**SJ Semiconductor (Jiangyin) Corporation**

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# The
# Challenge

SJSemi aims to provide integrated circuit design houses around the world with a one-stop shop for all their manufacturing and testing requirements. To support its operations, the company leverages a range of digital systems, including its SAP HANA platform, manufacturing execution system (MES), product data management (PDM) system, and many more.

As it prepared for significant international growth, SJSemi aimed to ensure that the IT infrastructure underpinning these business systems could support rising demand for compute and storage resources. In the past, the company used a mixture of server and storage systems from different vendors. As the data center infrastructure aged, reliability issues were becoming more common, and the heterogenous systems were complex and costly to manage.

Shi Ming, IT Director at SJSemi, says: "Our previous three-tier architecture was beginning to cause performance bottlenecks. So, we looked for a new solution to accommodate our growing workloads."

"We had a number of important goals in mind for our data center refresh project. As well as improving overall reliability and availability, we were keen to modernize our infrastructure and embrace modern technologies such as containers."

**Shi Ming**
IT Director, SJ Semiconductor Corporation

# Targeting a **hyper-converged** infrastructure

SJSemi decided to replace its three-tier architecture with a hyperconverged infrastructure (HCI) solution from Lenovo and Nutanix. The new HCI solution is based on a five-node Lenovo ThinkAgile HX5530 cluster with Nutanix Cloud Platform software, consolidating compute, storage, and networking in a compact and easy-to-manage footprint.

To support its database and application servers, the company deployed Lenovo ThinkServer SR660 V2 and Lenovo ThinkSystem SR650 V2 servers connected to low-latency Lenovo ThinkSystem DM5000H and DE6000H storage arrays. And for SAP HANA workloads, SJSemi selected Lenovo ThinkSystem SR950 servers, deployed in a high-availability cluster.
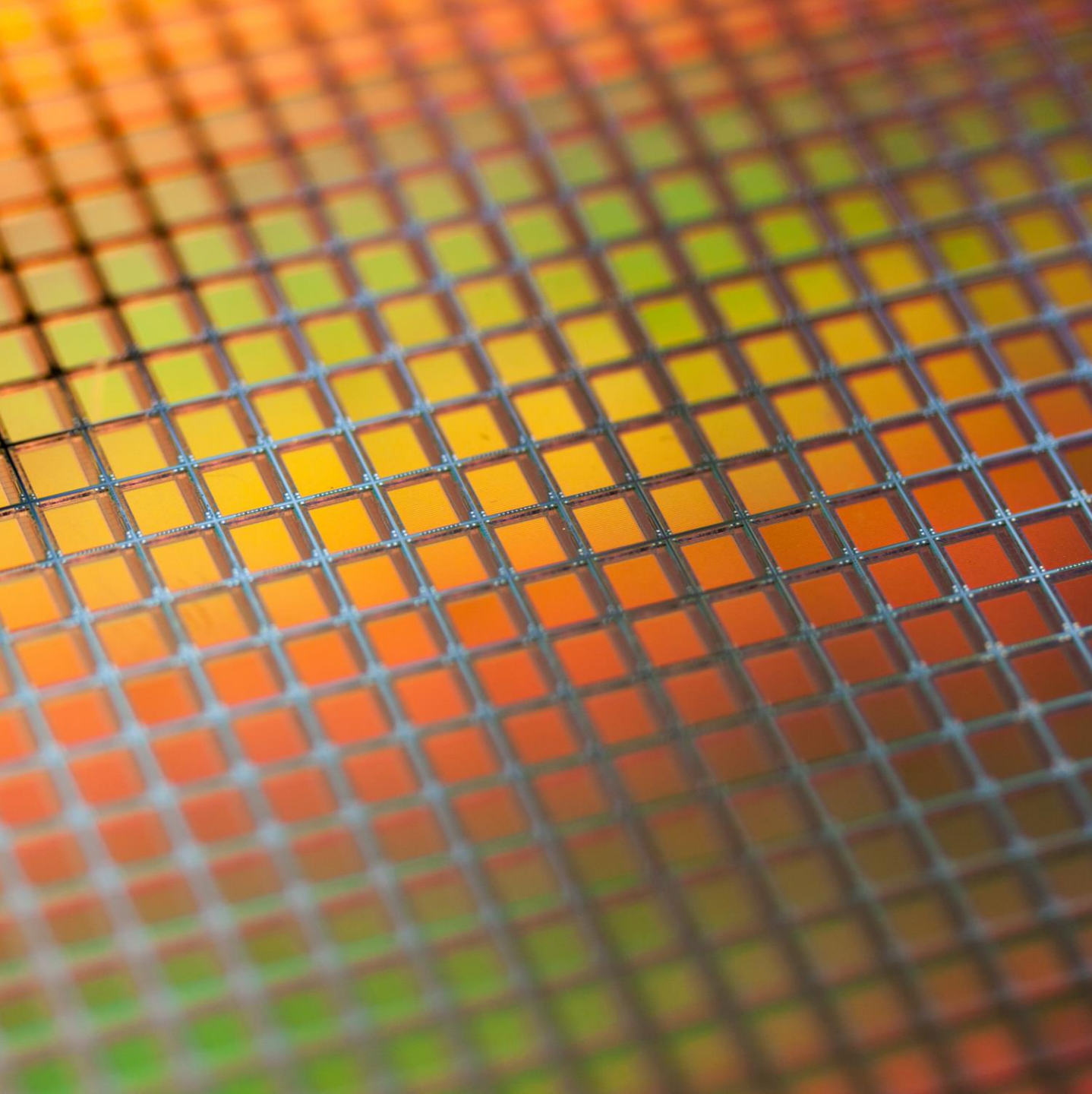
## Hardware
Lenovo ThinkAgile HX5530
Lenovo ThinkSystem DE6000H
Lenovo ThinkSystem DM5000H
Lenovo ThinkSystem SR650 V2
Lenovo ThinkServer SR660 V2
Lenovo ThinkSystem SR950

## Software
Lenovo XClarity
Nutanix Cloud Platform
Nutanix Prism

## Services
Lenovo Deployment Services

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"Since we migrated our ERP, MES, and PDM applications to the new HCI solution from Lenovo and Nutanix, we've seen a major boost in end-user application performance. Everyone—from senior leadership to managers and employees—has noticed the difference."

**Shi Ming**
IT Director, SJ Semiconductor Corporation

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# Results

With the new Lenovo and Nutanix solution supporting its global manufacturing and testing operations, SJSemi has gained the headroom for the next eight years of business growth.

"Refreshing our data center infrastructure with Lenovo and Nutanix gives us the stable foundation we need to expand internationally and explore new approaches such as containerization," says Shi Ming. "It's only been a few months since we went live, but we've already measured a 30% improvement in availability, and a 40% reduction in our IT operations and maintenance costs."

✓ **30% improvement in system availability**

✓ **40% reduction in operations and maintenance costs**

✓ **Capacity for eight years of business growth**

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"Lenovo and Nutanix combine stable, mature solutions with excellent aftersales support. With a new HCI platform supporting our key business systems, we're ready to pursue our long-term growth objectives."

**Shi Ming**
IT Director, SJ Semiconductor Corporation

# Why Lenovo and Nutanix?

As well as offering compelling operational cost-efficiency, SJSemi was attracted to the Lenovo and Nutanix offering for its ease of management and scalability. With Lenovo XClarity and Nutanix Prism, the IT team can orchestrate its physical hardware and virtual environments from a single point of control.

"By using Lenovo and Nutanix system management software, our infrastructure fades into the background—allowing us to focus on supporting the business," confirms Shi Ming. "We have also been very impressed with the responsiveness of Lenovo's aftersales services. If we need support, we can access technical resources and spare parts very quickly."

# How can businesses ensure IT doesn't get in the way of growth?

SJSemi teamed up with Lenovo and Nutanix to build the compute, storage, and networking headroom for eight years of business expansion.

**Explore Lenovo ThinkAgile HX Series**

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