

Lenovo Powers Lenovo

Lenovo **transforms** hybrid cloud management with **AI-powered** automation

Cutting cloud costs, boosting cloud availability, and accelerating cloud management



Lenovo

Challenge: Managing Complex IT Resources



From empowering remote workers to boosting the reliability of key applications, it's easy to understand why so many global enterprises are embracing a hybrid cloud strategy. However, managing a complex and fast-growing set of public and private cloud resources can quickly overwhelm internal IT teams.

Originally developed as an internal tool to manage our global infrastructure and cloud services, Lenovo began to offer our hybrid cloud solution to other organizations. Built on Lenovo intellectual property, the solution has reduced the time we spend on cloud management by **60%**, boosted availability from **99.95%** to **99.99%**, and cut our public cloud costs by up to **35%**.



18 R&D sites



33.000 patents



23 private cloud & edge data centers



Operate Data Centers in **17 cities** across the globe

Challenge: Staying Ahead through **Tight Governance**



Lenovo has been pioneering IT innovation since 1984—and today, we have 18 research and development sites and hold 33,000 patents and patent applications. So, when the cloud revolution took off, Lenovo was quick to leverage cutting-edge private cloud technologies to support its global operations.

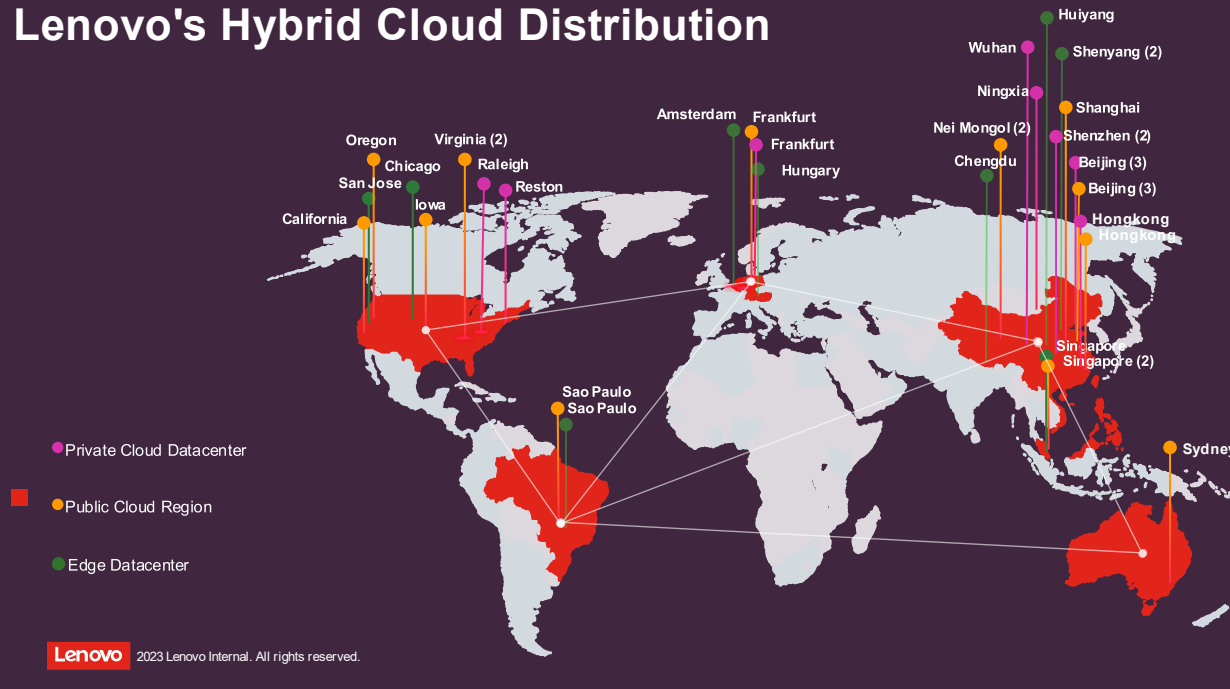
Lenovo follows a **cloud-first implementation strategy**, carefully reviewing workloads to determine whether private, public, or hybrid cloud deployment is the best fit. We operate 23 private cloud data centers and edge data centers in 17 cities across the globe, while also taking advantage of **16 public cloud regions**.



Wenjie Zhang

Cloud Native Products R&D Director
Lenovo

Lenovo's Hybrid Cloud Distribution



“Managing our data and services effectively has always been a top priority. Governance is crucial: we aim to maintain tight control over everything.”

Challenge: Managing Complex Hybrid Cloud Environments



Initially, Lenovo relied on commercial off-the-shelf virtualization and containerization tools to drive its private cloud environments. In regions where private cloud implementation costs were high, teams began to adopt public cloud services for less critical workloads.

Within Lenovo, demand for cloud services was growing steadily, with internal users leveraging Docker and Kubernetes to create, run, and manage containerized environments. However, the complexity of Lenovo's vast on-premises IT footprint and public cloud deployments created technical and operational challenges that soon outgrew the capabilities of our existing resource management tools.



Wenjie Zhang

Cloud Native Products R&D Director
Lenovo



We saw an opportunity to develop our own solution for hybrid cloud management. The aim was to unlock the full potential of containers and gain greater control over our global data centers and public cloud deployments.”

Solution: Lenovo powers Lenovo



Leveraging our technology expertise and leadership in cloud, Lenovo developed a solution to empower internal users to rapidly build, migrate, utilize, and manage private and public cloud environments.

The Lenovo hybrid cloud solution incorporates a range of innovative capabilities that streamline and accelerate key cloud management tasks. For example, the solution substitutes intelligent digital workflows for manual container management via scripts and command-line interfaces.



Wenjie Zhang

Cloud Native Products R&D Director
Lenovo



The solution offers powerful self-service tools that help users do their work more quickly and efficiently, for example, it enables users to self-order computing, storage, container, and database services on a unified portal, and automatically delivers the required resource environment to users within minutes or even seconds.”

Solution: leveraging AI innovation



By aggregating data from multiple sources into a single point of control, the Lenovo hybrid cloud solution offers users a 360-degree view of the health of their cloud environments. In addition, the solution incorporates AI capabilities that enable teams to rapidly drill down into the root causes of potential issues.



Wenjie Zhang

Cloud Native Products R&D Director
Lenovo



Lenovo Hybrid Cloud Management Platform

“Through AI-powered automation, the Lenovo hybrid cloud solution enables users to analyze data from their system logs to help ensure they have the optimal balance of compute, storage, and networking resources for their cloud workloads. AI-assisted analytics is useful because it can quickly pinpoint issues with APIs, servers, or networks, even if they are buried deep in the stack. The solution enables teams to manage all their cloud resources—including private cloud resources from Lenovo and hyperscaler platforms from other cloud companies. It allows users to analyze public cloud usage and spend, which creates valuable opportunities to reallocate workloads to most cost-efficient platforms.”

Result: Eliminating Repetitive Manual Tasks



By leveraging microservices and DevOps practices to automate repetitive daily management tasks, the Lenovo hybrid cloud solution delivers time-savings of up to 60% for operations engineers. Similarly, automated infrastructure management and proactive fault alerting can deliver a significant increase in uptime: Lenovo has boosted the availability of our cloud platforms from 99.95% to 99.99%.

The Lenovo hybrid cloud solution also brings valuable cost-efficiencies to multi-cloud operations, enabling teams to automatically determine the optimal private or public cloud platform for their workloads. Using the solution, Lenovo has achieved operational cost-savings of 35% on cloud resource consumption.



In addressing this pain point with this internal tool, Lenovo experienced:

- ✔ **60%** reduction in management time
- ✔ Boosts availability from **99.95%** to **99.99%**
- ✔ **35%** reduction in public cloud costs

Lenovo Hybrid Cloud Management Platform

Result: Fast and Flexible Transformation



In addition to using the hybrid cloud solution to manage our own global infrastructure and cloud footprint, Lenovo now offers the solution to customers in China. The Lenovo hybrid cloud solution can be deployed on customers' existing on-premises servers, delivered as a datacenter-in-a-box offering running on Lenovo hardware, or as a service.



Wenjie Zhang

Cloud Native Products R&D Director
Lenovo



“The hybrid cloud solution transformed the way that we manage our IT estate, bringing new levels of manageability and control. What started out as an internal-only tool for Lenovo has now grown into an enterprise-class solution for hybrid cloud management. Some of our largest customers now rely on the solution to orchestrate their environments, and the user base is growing all the time.”

Result: Unlocking the Value of Hybrid Cloud



The Lenovo hybrid cloud solution helps customers with a wide range of use cases.



Kevin Feng Tian

IaaS Solution Architect & Senior Project Manager
Lenovo

“We can help customers achieve their cloud goals, no matter how big or small their ambitions. As one of the world’s leading hardware manufacturers, we can provide everything as service to our customers need to spin up a hybrid cloud architecture quickly, efficiently, and securely.”



Wenjie Zhang

Cloud Native Products R&D Director
Lenovo

“The Lenovo hybrid cloud solution enabled customers to dramatically accelerate cloud deployments while slashing management requirements. We recently deployed the solution for a leading automotive manufacturer in China. After a year of using the solution, the company needed just one engineer to support their entire enterprise-class platform.”



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To find out how Lenovo could help your organization unlock the full value of cloud, visit [Lenovo.com](https://lenovo.com) or speak to your Lenovo contact.