Technology | Germany

Building and scaling a highly secure cloud platform

SysEleven GmbH

Cloud service provider SysEleven builds a new, modern data center with Lenovo ThinkSystem servers powered by 4th Gen Intel® Xeon® Scalable processors to increase capacity and performance for highly secure cloud-native deployments.

1 Customer background

Who is SysEleven GmbH?

SysEleven GmbH serves over 500 customers in the DACH market and employs more than 170 people. As a cloud and Kubernetes managed service provider, SysEleven has been a member of the Cloud Native Computing Foundation (CNCF) and a certified Kubernetes provider since 2018, and specializes in the operation of distributed and business-critical systems and the rapid scaling of workloads.

SysEleven is wholly owned subsidiary of one of Germany's leading cybersecurity companies, secunet. It supports customers that want to complete their transformation into cloud-native organizations, and that value speed, flexibility, and autonomy. The company's services include OpenStack public and private cloud offerings and partially or fully managed Kubernetes with 24/7 cloud operations. At the heart of SysEleven's vertical technology stack is "MetaKube", a managed Kubernetes service that enables organizations to develop and operate web-based solutions and services from data centers in Germany.

SysEleven

2 The challenge

SysEleven aimed to expand its data center infrastructure to meet the growing demand for its cloud services. The company operates its own cloud solutions, including a managed Kubernetes service.

To ensure reliable and secure operations while growing its business and data center footprint, SysEleven needed a partner capable of delivering cost-efficient and robust systems fast, enabling the company to respond flexibly to dynamic scaling requirements on its cloud platform.

“Our cloud services build on a software-defined data center architecture using open-source solutions. This approach requires **rock-solid physical servers** to power the higher-level services and offerings, as well as **fast and smooth support**. It was critical for us to use **tried-and-tested standard solutions** with simple, efficient processes backed by a strong and reliable partner. We need to be able to deploy new infrastructure seamlessly across our ISO 27001 certified data centers with our small and agile operations team.”

Robert Kühn

Teamlead Datacenter Operation, SysEleven GmbH

3 The solution

Expanding the cloud cost-efficiently

As SysEleven was looking to equip a new data center with the latest technology, the company got in touch with Lenovo to support this expansion. By working with Lenovo, SysEleven consolidated its procurement of servers and networking equipment for its data centers, streamlining processes and saving costs.

Robert Kühn, Teamlead Datacenter Operation at SysEleven GmbH, says: “Powered by 4th Gen Intel Xeon Scalable processors, Lenovo ThinkSystem SR630 V3 servers deliver great performance for our cloud services. One of our new data centers runs entirely with Lenovo servers.”

Hardware

Lenovo ThinkSystem SR630 V3 servers powered by 4th Gen Intel® Xeon® Scalable processors
Lenovo ThinkPad notebooks

Software

Ceph
Kubernetes
OpenStack
Ubuntu Linux

Services

Lenovo Warranty Extension

3 The solution

Maximizing efficiency and performance with flexible standard solutions

SysEleven selected different ThinkSystem server models for different tasks. To provide compute capacity to run virtual machines and containers, the company deployed Lenovo ThinkSystem SR630 V3 servers powered by 4th Gen Intel® Xeon® Scalable processors with built-in accelerators to help improve performance per watt and fast DDR5 memory—maximizing performance for cloud applications and users.

To run the distributed open-source, software-defined storage service Ceph, SysEleven selected Lenovo ThinkSystem servers, which offer better storage performance and cost-efficiency with minimum latency thanks to super-fast NVMe flash drives.

With Generative AI and large language model (LLM) workloads becoming more important for its customers, SysEleven now increasingly adds GPU capacities to its cloud servers. Working with Lenovo, the company can pick the latest GPU technologies and scale its cloud rapidly as needed, without slow delivery times holding back business growth.

“Running AI workloads in the cloud is a growth market for us. **By choosing Lenovo, we can quickly get new servers with powerful GPUs to scale up our cloud**—other vendors couldn’t offer that. Lenovo’s **supply chain excellence** ensures good delivery times and availability of a wide range of options. This also includes advanced networking solutions at very attractive prices, allowing us to expand our software-defined network fabric cost-efficiently building on open-source, standard network solutions.”

Robert Kühn

Teamlead Datacenter Operation, SysEleven GmbH

4 The results

Thanks to the powerful and reliable Lenovo servers, SysEleven can scale its cloud services smoothly to meet growing demand for highly secure cloud services and solutions from customers that need to handle secured and classified information.

By deploying about 40 new Lenovo servers per year, SysEleven is growing its Lenovo footprint quickly and powers its cloud native portfolio based on a customized, hardened multi-tenant OpenStack cloud platform, delivering trusted hosting services in compliance with the EU General Data Protection Regulation (GDPR) from data centers located across Germany.

- **4x faster negotiation and order process**
- **5x faster delivery time for standardized severs**
- **>400 servers deployed across several locations**

[1] Data provided by SysEleven GmbH

4 The results

Delivering reliable, secure native-cloud services

Building on Lenovo solutions, SysEleven runs its comprehensive managed service for Kubernetes at scale. The company relies on Lenovo infrastructure to offer a wide range of cloud-native services including container application lifecycle management, backup and recovery, load balancers, and Database-as-a-Service solutions.

By leveraging the reliability and stability of Lenovo systems, SysEleven engineers and developers can focus on providing personal support in direct contact with customers, adding value and building trust.

“For us as a fast growing, innovative cloud provider, **Lenovo covers all our requirements across compute, GPU, storage, and networking seamlessly and cost-efficiently**. On top of that, the Lenovo team is easy to work with, always offers valuable advice and finds quick solutions for our challenges. We’re now talking about further optimizing our data center performance with new servers that offer even higher density and efficiency for cloud-native and AI workloads.”

Robert Kühn

Teamlead Datacenter Operation, SysEleven GmbH

Why Lenovo?

SysEleven selected Lenovo because it wanted a flexible, reliable partner that could offer different configurations with fast delivery times. Working with security conscious customers, it was important to use certified hardware that delivers security by design.

To provide its software engineers with robust, high-quality devices to work remotely, SysEleven offers them Lenovo ThinkPad notebooks with fast performance and good Linux support. This helps the company to streamline development, testing, and deployment workflows.

Additionally, by becoming a Lenovo Cloud Service Provider, SysEleven plans to take advantage of additional training opportunities to upskill in-house technicians to be able to complete more maintenance tasks independently.

How do you scale a cloud platform cost-efficiently?

SysEleven deployed Lenovo ThinkSystem servers powered by Intel® Xeon® Scalable processors to add capacity for its highly secure cloud services. That's the power of Lenovo with Intel Inside®.

Explore Lenovo ThinkSystem Solutions