Delivering digital services faster with microservices

CompuSoft

To develop and deliver innovative digital services to tourism businesses more efficiently, CompuSoft is transitioning to a cloud-native microservices architecture running on Lenovo ThinkSystem SR665 V3 servers powered by AMD EPYC™ 9555 processors.

Lenovo

AMD

Who is CompuSoft?

CompuSoft is a leading Danish software and technology company that specializes in providing complete booking systems and ticketing solutions for tourism businesses in Scandinavia and the DACH region (Germany, Austria, and Switzerland).

The company offers dynamic e-commerce solutions, online booking systems, self-service solutions, guest apps, point-of-sale (POS) systems, access control, and electricity consumption metering, all aimed at increasing efficiency, revenue, and guest service. Every day, CompuSoft services millions of transactions and ensures high performance for more than 600 campsites, motorhome sites, holiday resorts, marinas, attractions, and holiday parks.

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2 The challenge

Across the tourism industry, guests increasingly expect sleek and swift digital services. CompuSoft is an expert in digitization and omnichannel strategy for hospitality and leisure companies, specializing in optimizing and future-proofing tourism businesses.

Thomas Traberg-Larsen, CEO at CompuSoft, begins: "Guests expect to be able to access all the information related to their booking, anytime, anywhere. They want to be able to skip the line, and easily and conveniently serve themselves. Self-service and digitalization are important competitive differentiators that our customers are eager to implement."

Using CompuSoft solutions, guests can conveniently check in around the clock at a self-service machine, after which barriers, gates, and doors can be opened with just a few clicks on their mobile phone. The system sends an SMS to the guest as soon as their campsite pitch, cabin, or room is ready.

2 The challenge

Previously, CompuSoft delivered managed services hosted on a traditional three-tier infrastructure based on Lenovo x86 rack servers and an IBM SAN array. While these systems had proved reliable over the years, performance was waning as demand grew and CompuSoft expanded its solution portfolio.

"We pride ourselves on being a one-stop shop for tourism businesses," comments Traberg-Larsen. "Our digital services portfolio provides everything our customers need to run the front desk and serve their guests."

To deliver these digital services to customers efficiently, CompuSoft was eager to modernize its IT architecture through a microservices, API-first approach. "Innovation is in our DNA," says Traberg-Larsen. "We saw the opportunity to become more adaptable by transitioning to cloud-native microservices."

3 The solution

Making a change

As the first step in its modernization journey, CompuSoft worked with technology partner ALSO A/S to virtualize its compute and storage resources using Microsoft Hyper-V and Storage Spaces Direct (S2D) solutions.

Now, the company is transitioning to Proxmox Virtual Environment (VE), an open-source server management platform for enterprise virtualization. Proxmox VE integrates the KVM hypervisor and Kubernetes containers, Ceph software-defined storage, and software-defined networking functionality on a single platform, running on Lenovo ThinkSystem SR665 V3 servers powered by AMD EPYC™ 9555 processors.

Hardware
Lenovo ThinkSystem SR665 V3 powered by AMD EPYC™ 9555 processors

Software
Ceph
Kubernetes
KVM
Lenovo XClarity Administrator
Proxmox Virtual Environment

Deploying a modern microservices architecture

CompuSoft is currently installing the final Lenovo ThinkSystem SR665 V3 servers in its data center in Odense, Denmark. In parallel, the company is rebuilding existing solutions and functionality as microservices running in containers to make software development faster and more efficient.

"There will be a total of nine physical servers, deployed as three three-node clusters and all working in conjunction for our Kubernetes container platform," says Traberg-Larsen. "This setup helps us to ensure data integrity. If something goes wrong, there's always a copy on another cluster where the containers can continue running."

CompuSoft takes advantage of the Lenovo XClarity Administrator tool to manage the servers, giving the company's IT administrator a unified overview of the entire infrastructure.

Keeping sustainability in mind

Powered by 5th Generation AMD EPYC™ 9555 processors, the Lenovo ThinkSystem SR665 V3 servers offer exceptionally high density and performance, enabling CompuSoft to meet compute demands with fewer physical servers.

"The core density and energy efficiency of the AMD EPYC™ processors is very impressive," confirms Traberg-Larsen. "Keeping our energy usage to a minimum is very important to us, and we have set ourselves ambitious sustainability goals. We reutilize the heat generated by our servers to warm our offices and workshops, and our data center is powered by solar and wind energy."

CompuSoft's 48 KW hybrid solar system and 18-meter wind turbine currently deliver far more power than the company consumes and are connected directly to the power grid. This not only supports a positive climate impact but also enables people to book holidays and experiences with a green conscience.
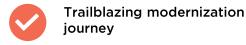
"A great feature of the Lenovo ThinkSystem SR655 V3 servers, powered by AMD EPYC™ 9555 processors, is that they can be **retrofitted with Lenovo Neptune® water-cooling technology** in the future, giving us another option to **further improve energy efficiency**."

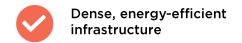Thomas Traberg-Larsen

CEO, CompuSoft

4 The results

As a result of the modernization journey, CompuSoft's customers and their guests will benefit from new and better digital services.

Traberg-Larsen comments: "We are future-proofing our business by moving to a microservices architecture. It will enable us to develop and deploy innovative digital services much more efficiently, stay ahead of industry trends, and meet the evolving needs of our customers and their guests."

- ✓ Trailblazing modernization journey
- ✓ Cloud-native microservices approach
- ✓ Dense, energy-efficient infrastructure

> **"Our cloud-native microservices transformation, supported by ALSO A/S and Lenovo, positions us as an innovator and industry leader."**
>
> **Thomas Traberg-Larsen**
>
> CEO, CompuSoft

Why Lenovo and AMD?

For CompuSoft, the design and build quality of the ThinkSystem servers put Lenovo ahead of competitors. "We really like the modular design of the servers and the flexibility that gives us," confirms Traberg-Larsen. "We played around with a lot of configuration options before finding the perfect fit for our needs."

CompuSoft's chosen Lenovo ThinkSystem SR665 V3 configuration features two 64-core AMD EPYC™ 9555 processors and 3 TB of memory per host. "The AMD EPYC™ processors have a higher clock frequency than other CPU architectures we considered and the per-core performance is excellent," says Traberg-Larsen. "Moving to the open-source Proxmox solution means we're no longer restricted by licensing conditions, so we can unleash the full potential of those cores."

"CompuSoft is always **pushing boundaries** and looking for new ways of doing business. We're currently **exploring the potential of an OEM partnership between CompuSoft and Lenovo** to make it quicker and easier for CompuSoft to bring edge, retail, and point-of-sale solutions to its customers."

Troels Andersen

Focus Sales Manager, ALSO A/S

How can tourism businesses deliver in-demand digital services?

Working with ALSO A/S and Lenovo, CompuSoft is moving to cloud-native microservices to launch innovative digital services faster and more efficiently.

Explore Lenovo ThinkSystem Solutions

Lenovo

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