Computer Services

Scaling fast
to meet surging demand for cloud services

IT-Stöd

Taking on a twofold increase in client numbers with speed and ease with Lenovo ThinkAgile MX Certified Nodes for Azure Stack HCI.

Lenovo

Powered by

Microsoft

Who is IT-Stöd?

IT-Stöd is an IT services provider with a strong focus on hosted cloud solutions. Founded in 2004 by a team of three, the company now employs 25 people and continues to grow every year. IT-Stöd supports some 450 customers across Sweden, most of them small and medium-sized enterprises (SMEs).
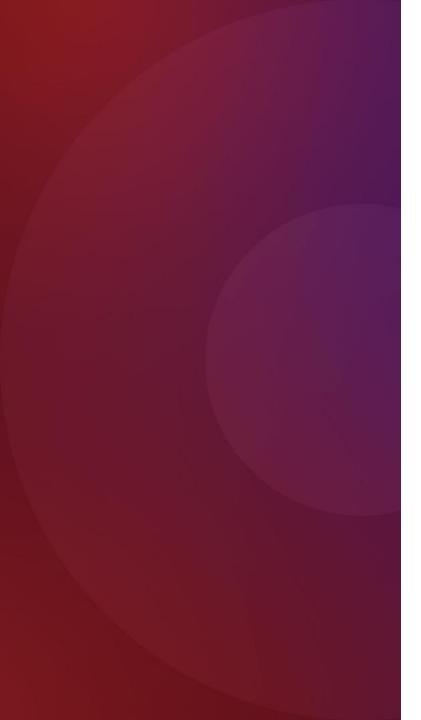
The company aims to deliver tailor-made solutions that meet each customer's unique demands, whether it's high availability, performance, scalability, or security. IT-Stöd also prides itself on meeting strict data residency requirements, enabling customers in highly regulated industries such as healthcare and financial services to keep their data safely within Sweden's borders.

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The
Challenge

As a cloud services provider, IT-Stöd's reputation rides on delivering consistently high-quality service to customers. Recently, that commitment was put to the ultimate test when a new collaboration with a leading financial software company sparked a big boom in business.

Christopher Flach, IT technician at IT-Stöd, explains: "After we announced the partnership, our customer base doubled in just a few months. We were welcoming five to ten new customers every week. This was unprecedented growth for us, and we needed to scale very fast to accommodate it. At the same time, it was important to keep costs down, so that prices remained accessible for our customer base."

IT-Stöd decided to expand to a new data center location, adding much-needed capacity, as well as geographical redundancy for business continuity and disaster recovery. The company recognized that its existing SAN-based architecture wasn't feasible for this new approach, primarily because it would be prohibitively expensive to operate SANs at two separate sites. That realization sparked a search for an infrastructure platform capable of supporting IT-Stöd's new ambitions.

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"When it was time to look at acquiring new hardware, our goals were twofold. We were determined to maintain the high levels of performance and functionality that we had worked hard to establish, while improving scalability so that we were well-prepared for growth."

Christopher Flach
IT technician, IT-Stöd

Hyper-convergence has arrived

A hyperconverged infrastructure (HCI) solution from Lenovo and Microsoft proved to be just what IT-Stöd was looking for. The company opted to replace its traditional SAN with an infrastructure based on the Lenovo ThinkAgile MX Series, powered by Microsoft Azure Stack HCI.

Engineered and tested by Lenovo and certified by Microsoft, ThinkAgile MX is fully software defined and runs on Windows Server 2019 Datacenter Edition, which includes Hyper-V virtualization and Storage Spaces Direct (S2D) technology from Microsoft.
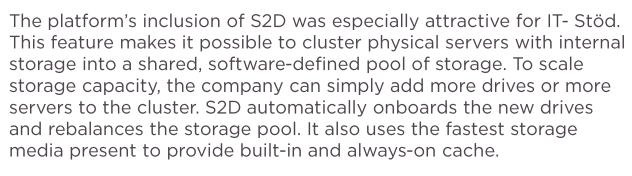
Hardware
Lenovo ThinkAgile MX Series Certified Nodes

Software
Lenovo XClarity Administrator
Microsoft Azure Stack HCI
Microsoft Dynamics
Microsoft Exchange Server
Microsoft SQL Server

Services
Lenovo Premier Support

The platform's inclusion of S2D was especially attractive for IT- Stöd. This feature makes it possible to cluster physical servers with internal storage into a shared, software-defined pool of storage. To scale storage capacity, the company can simply add more drives or more servers to the cluster. S2D automatically onboards the new drives and rebalances the storage pool. It also uses the fastest storage media present to provide built-in and always-on cache.
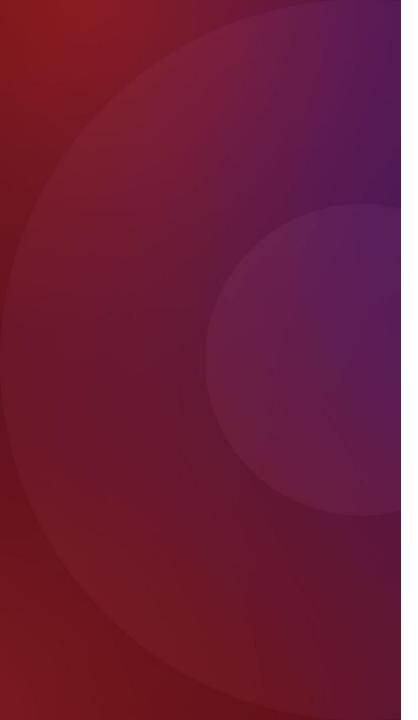
IT-Stöd started by deploying two clusters across two data center locations. Each cluster comprises six ThinkAgile MX Certified Nodes with all-flash storage. Exactly one year later, it implemented another cluster, again featuring six ThinkAgile MX Certified Nodes.

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"We've built in a lot of headroom with the HCI. Our strategy is to use no more than 45% of total performance per cluster. It means we can easily shift all virtual machines [VMs] to a single site if there's an issue or if we need to perform maintenance, avoiding any downtime."

Christopher Flach
IT technician, IT-Stöd

Today, the Lenovo-Microsoft infrastructure powers a steadily growing cloud services portfolio at IT-Stöd. Typical hosted applications include Microsoft Exchange Server, Microsoft Dynamics ERP solutions, and Microsoft SQL Server for databases.

To provision and manage its data center resources, IT-Stöd counts on Windows System Center Virtual Machine Manager (VMM). It also makes use of the Lenovo XClarity Integrator for Microsoft Windows Admin Center to manage firmware and driver updates for its servers.

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"With the Lenovo-Microsoft HCI, we found an effective way to divide our storage space over two sites. Not only does this make our hosted environment highly available, it also provides great performance and reduces the cost of storage."

Christopher Flach
IT technician, IT-Stöd

> "Lenovo's support is really good. When we have a hardware failure on any site, they are so quick to respond. Recently, one of our memory modules failed and before we even noticed it ourselves, we got a call from Lenovo asking if we'd prefer to have a technician come out to replace the part or if they should send it by mail. It's really reassuring to know that we can count on such proactive and effective support."

Christopher Flach
IT technician, IT-Stöd

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Results

Opting for all-flash storage in the Lenovo-Microsoft HCI has delivered big performance gains. Overall, system performance is up around 35% compared to the company's old hardware. Even more impressively, IT-Stöd has slashed the time taken to run backup jobs by up to 40%.

"The performance of the Lenovo ThinkAgile MX platform is great," says Flach. "Previously we used a tiering system and now that we've moved to all-flash, there's no comparison. We've been able to take backup times down from 8-9 hours to 3-4 hours—and that's even as our environment has more than doubled in size."

IT-Stöd has seen a similar boost to I/O performance with its new Lenovo hardware. This has been a boon for the company's financial services clients, many of whom have large SQL databases with hefty read/write requirements.

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"For one of our clients, a large accounting firm, we host a SQL database with 3,200 entries. They have very high requirements for read/write speed, and Lenovo ThinkAgile MX allows us to meet them with ease. We've had glowing feedback from the client since introducing the HCI."

Christopher Flach
IT technician, IT-Stöd

Most importantly, embracing hyperconvergence has provided IT-Stöd with the scalability it needs to support today's customers and tomorrow's demands. The company continues to add two to three new clients every week, and can now accommodate the steady rise in business volumes with ease. In the future, when IT-Stöd needs to scale up, it can do so easily by adding new nodes or a new cluster entirely—a highly straightforward and cost-effective approach.

Flach comments: "Easy scalability was one of the things that most attracted us to HCI, and the Lenovo-Microsoft solution absolutely delivers on that front. We now have all the room we need to continue growing and building our customer base."

- 35% performance boost
- 40% faster backups
- 2-3 new customers onboarded weekly

Why Lenovo?

IT-Stöd is a longstanding Lenovo client, having used Lenovo hardware to support both its data center and business operations since the company's inception. When the time came to select a new infrastructure platform to underpin its hosting environment, it didn't take long for IT-Stöd to decide on Lenovo's hyperconverged offering.

Flach remarks: "We looked at Lenovo ThinkAgile MX and an offering from one other hardware vendor, but there was honestly no contest. We have a great partnership with Lenovo and know we can count on them for reliable performance at fair prices, so it was an easy choice in the end."

As an IT services provider, IT-Stöd especially values the responsive support that it receives from Lenovo.

How do you scale operations without sending costs soaring?

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Lenovo and Microsoft technology.

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