



VSN

With soaring data volumes pushing existing storage systems to their limits, IT provider VSN decided to transform its storage infrastructure with SUSE® Enterprise Storage. With this highly scalable and efficient software-defined storage solution in place, VSN has broken down the barriers to growth—minimizing time spent managing storage, reacting faster to changing business demands, and boosting availability to keep its IT services ahead of the game.

Overview

VSN Systemen is a developer of telecoms hardware and software solutions for VoIP and SS7 carriers, as well as a provider of hardware and software solutions including infrastructure hosting, support and consultancy services. The company was founded in 1991 as a developer of services in the Telecom IT. Over time, it evolved into a developer of telecom hardware and software solutions for VoIP and SS7 Carriers.

VSN's IT engineers have many years of experience in designing, implementing and

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Director
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maintaining IT and telecommunication infrastructures, varying from a single server to an entire server park, including enterprise virtualization and networking, big data architectures and software-defined storage platforms.

Challenge

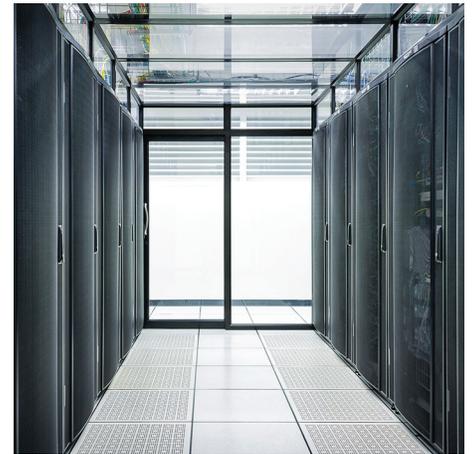
Clients count on VSN to deliver solutions and services that keep their businesses on the leading edge. While the company works with clients from a range of industries, it has particularly strong experience in developing solutions for the telecommunications sector.

Telecoms firms have especially demanding needs when it comes to their infrastructure hosting. Mathie van Montfort, Director of Sales and Operations at VSN, gives a snapshot of one client's hosted environment: “We work with a VoIP services provider that processes close to one million payments and generates over 400 TB of VoIP data every month. To support them, we operate and maintain a huge landscape that comprises some 2,000 servers in a 1,000-square-meter data center.

“And this is just one of the many environments that we operate and maintain. In total, we manage many petabytes of data—from call records, fraud detection

Case Study

SUSE Enterprise Storage



■ Industry and Location

Computer Services, Netherlands

■ Product and Services

SUSE Enterprise Storage

■ Results

- + Keeps IT costs low through use of software-defined storage on commodity servers and disk drives
- + Extreme scalability allows VSN to seamlessly keep pace as data volumes grow
- + Reduces administrative effort and expense with intuitive management tools and self-healing, self-managing storage
- + Accelerates response to business demands with the ability to rapidly optimize or add storage as needed



logs and transaction data for our clients, to our own enterprise data such as logging and tracking records, and all kinds of statistics from systems, web applications and databases.

“Both our clients’ teams and our own teams rely heavily on these systems and data to keep operations running smoothly, so it’s absolutely vital that we maintain optimum levels of availability and performance around the clock.”

MEETING NEW STORAGE DEMANDS

With business—and data volumes—growing steadily, existing storage systems at VSN were being pushed to their limits.

Mathie van Montfort, Director at VSN Systemen BV, elaborates: “Our storage environment was definitely starting to experience growing pains. We were rapidly

reaching the upper limits of capacity, and a lack of easy scalability meant that we would have to significantly increase budget and management effort to meet growing data demands. As a small company with a lean IT team, keeping a tight rein on costs is a key priority for us, and we were keen to make sure that rising demands and complexity did not eat into our profit margins.

“Another challenge was that it was becoming harder to keep up with changing requirements from the business. For example, if our engineers wanted to spin up a new test environment that required a lot of storage, it took considerable time and effort for us to provision the necessary systems. We were concerned that the lack of agility was increasing time-to-market for new ideas and offerings, and potentially damaging our competitiveness.”

Solution

Following careful consideration, VSN determined that a software-defined storage solution offered an ideal way to bring greater efficiency and flexibility to its storage landscape. After evaluating a number of options, the company chose SUSE Enterprise Storage to underpin a new strategic approach to storage management.

A software-defined storage solution powered by Ceph technology, SUSE Enterprise Storage enables organizations to build cost-efficient and highly scalable storage using commodity, off-the-shelf servers and disk drives.

SUSE Enterprise Storage builds on the core Ceph system to add advanced management and deployment tools, along with seamless integration capabilities and proven enterprise support.

“In our opinion, SUSE Enterprise Storage offered the total package,” says Mathie van Montfort. “While other solutions lacked the full range of functionality we were after or locked us into using proprietary hardware, with SUSE we didn’t have to compromise—we got an open, feature-rich solution, with the bonus of full enterprise support. We liked that SUSE Enterprise Storage is integrated with technology like OpenStack and supports the iSCSI protocol. Features like this give us much better flexibility and control when it comes to configuring and managing our storage infrastructure. We also felt that the SUSE solution offered better management tools than were available with the standard Ceph system, making it easier for us to set up and maintain the software.”

PARTNERING FOR SUCCESS

Working with SUSE, VSN currently has one storage cluster running SUSE Enterprise Storage, which is being used to support the operations of one of the company's biggest clients—an international VoIP and telephony services provider.

VSN has deployed the cluster at the client's private data center, located in Frankfurt, Germany. The company has configured 80 x 2TB and 80 x 1TB hard disk drives, along with 48 x 400GB solid state drives, with 10 Gb Ethernet interfaces—all running on eight DELL PowerEdge R730xd Rack Servers.

Mathie van Montfort recalls: "This project was new ground for us, and being able to call on SUSE for guidance and support has been a great help. We had a number of meetings with the SUSE team to gain a deeper understanding of how the software worked and build up our in-house knowledge of the solution. SUSE also worked alongside us to deploy the storage software and configure the underlying hardware. The support we received from SUSE has definitely exceeded our expectations. We work with many different IT providers and some of them have made us feel like we are less important just because we are a small company. In contrast, SUSE has treated us as an equal partner from day one—they have gone above and beyond to help us make this project a success, and we have been very impressed by their enthusiasm and willingness to answer our questions and solve our challenges. This high quality of support has confirmed that we made a good decision in choosing SUSE."

LOOKING AHEAD

VSN plans to add a further three SUSE Enterprise Storage clusters to its landscape

within the next year—opening up new opportunities to extend the benefits of software-defined storage to more of its customers.

"So far, our SUSE Enterprise Storage environment is doing an excellent job of meeting our client's storage needs," notes Mathie van Montfort. "Once all four clusters are up and running, we feel we will have a truly future-proof platform, ready to handle whatever demands arise from the business and other clients."

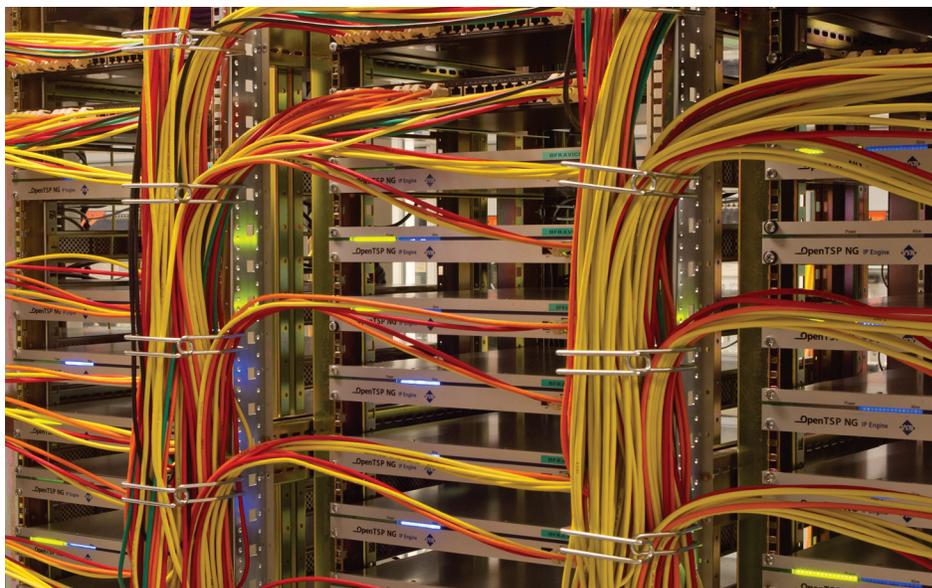
"We have been following the development roadmap for SUSE Enterprise Storage with interest and there are a many upcoming features, such as performance enhancements, that we are keen to take advantage of. It gives us confidence to know that SUSE is continuing to extend and improve the solution."

Results

With this project the knowledge of VSN on the SUSE specific products grew enormously. As a result VSN wants to share this knowledge in a partnership with SUSE to help other users of SUSE Enterprise Storage.

SUSE Enterprise Storage delivers a single, unified, software-defined storage cluster that provides applications with object, block and file system storage designed with no single points of failure, optimizing system resiliency. VSN can also take advantage of the software's powerful self-healing capabilities to ensure that mission-critical data remains highly available.

Mathie van Montfort says: "As SUSE Enterprise Storage is self-healing, if one component fails, another will take over automatically. This means that we only lose capacity, not performance, which helps



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us maintain very high levels of availability and ensure that end-users can reliably access the information and applications they need.

“This is an especially useful advantage for us as our client’s data center is located many miles away from our head offices, and it takes several hours for us travel there. So in the event that a disk or a node fails, for instance, the cluster will adjust automatically and keep working without downtime. This means we don’t need to drop everything and rush over to fix the issue; instead, we can make a note to resolve the issue on our next planned visit. As a result, we can minimize the need to make emergency data center trips that are costly and disruptive to our work. We can also plan repair and maintenance activity in a much more effective way.”

STRONG SCALABILITY AT LOW COST

As a distributed storage cluster, SUSE Enterprise Storage provides virtually unlimited scalability—giving VSN the ability to quickly and easily expand storage resources as the business needs them.

Mathie van Montfort explains: “With SUSE Enterprise Storage we have room to grow—it is an ideal solution for an IT provider like ourselves that has to deal with large volumes of constantly growing data. We can take advantage of the object storage technology provided by Ceph to scale out our cluster in a very efficient way. When we add a new node, it adds not only additional disk storage capacity, but also more RAM,

CPU and networking resources to improve the overall performance of the cluster and avoid bottlenecks.”

He continues: “Importantly, SUSE Enterprise Storage allows us to scale up in small increments as needed. In the past, if we wanted to increase storage capacity, we had to scale up in large increments—often adding more capacity than we actually needed—which required more up-front investment. Today, we can easily scale up disk-for-disk and node-for-node—and the cluster will automatically integrate the new disks and nodes as we add them. This is a much leaner and more controlled approach, which helps us work more efficiently as an IT team.”

What’s more, unlike traditional storage solutions that can be expensive to scale in capacity or performance, SUSE Enterprise Storage helps VSN keep CAPEX costs low by leveraging commodity servers and disk storage.

“We have been making use of commodity hardware in our data centers for some time to drive down costs, and SUSE Enterprise Storage fits perfectly with this approach,” notes Mathie van Montfort.

LEADING THE WAY

With a fast, flexible storage foundation in place, the IT team at VSN can react faster to changing business and data needs—helping cut time-to-market for new offerings and driving more responsive service to demanding customers.

Mathie van Montfort states: “With SUSE Enterprise Storage it is easy for us to provision additional storage and seamlessly deliver it to the business on demand. When users come to us with a new request, we are no longer held back by inflexible systems. We can flexibly allocate the storage resources they need, allowing them to spin up new environments, test their concepts and bring them into production—all in a very quick and efficient way. And once their testing and development work is done, we can remove or re-use storage with very little effort or waiting time. Not only does this make life easier for us as IT administrators, it also helps our teams bring new concepts and services to market much faster—sharpening our agility and competitiveness as an IT provider.”

Mathie van Montfort concludes: “We believe that SUSE Enterprise Storage gives us the best of all possible worlds—we get highly scalable, resilient and cost-effective storage, backed by great support from SUSE. We can now keep pace with fast growing data volumes and continue expanding our business to reach new heights of success.”