

Stadtwerke Tuttlingen

Utilities Provider

Use Case

Primary NAS-based storage

Requirement

Deploy a new easy to use storage system that offered high performance, flexibility and high availability

Solution

Two NFS storage arrays based on NexentaStor™ with HA clustering support SWT's entire headquarters Data Centre

COMPANY OVERVIEW

Founded in 1896, regional energy supplier Stadtwerke Tuttlingen (SWT) is responsible for providing electricity, gas, and water utilities to over 34,200 residents across 980 square miles in the South West area of Germany. Along with its responsibility for the power grid, SWT also supplies natural gas to private and business customers while managing two-thirds of Tuttlingen's drinking water and urban drainage.

SWT has a focus on sustainability and rejuvenation. Their corporate philosophy is feeding a percentage of their revenues back into the region to help projects that have a direct impact on the region's citizens. In addition, they also manage fast fibre optics networks in residential and commercial areas, a large recreational water park and several parking facilities.

CHALLENGES

The company had consolidated all its physical servers into 50 VMware Virtual Machines across two data centres in separate buildings at its main site in Tuttlingen. But while this had helped SWT save money and resources, it also placed all the data in one central repository and increased the need for high availability and redundancy to run the virtual machines.

At the backend, SWT used to run multiple high performance databases (Oracle, MSSQL) with Datacore and a classic 8GB Fibre Channel Infrastructure which was hampered by relatively bad optimization. The storage system was four years old and incapable of supporting a planned VDI deployment. As the Datacore solution was coming to its end of life, the utility company was faced with making an important decision. To ensure future expandability they could choose to renew their licenses and upgrade the hardware in their existing solutions or look for a suitable alternative.

SOLUTION

Initially, SWT had planned to continue with Datacore's Software Defined Storage (SDS) solution. However, at the last minute SWT received a recommendation from another Nexenta customer who had already deployed a feature-rich enterprise SDS solution based on NexentaStor.

NexentaStor

- ZFS 128-bit file system
- 2 x HP head nodes
- 2 x HP JBODs
- Each appliance supports 30TBs of storage
- Configured for high availability

"To keep our IT-system flexible enough to react on the quickly changing energy market, we were looking for a new storage system that offered high performance, flexibility and high availability. With Nexenta's software defined approach we found the right solution."

Meik Müller
IT Manager
Stadtwerke Tuttlingen



A meeting was arranged with Nexenta's German premium partner, Sievers Group, an IT systemhouse that provides a wide spectrum of innovative IT solutions, ranging from infrastructure and network systems to ERP and telecommunications. Sievers Group has a strong focus on storage and virtualization.

After testing and evaluating the system, SWT realized that Nexenta offered a storage system that was built on NFS. Not only did this make it a very cost-effective and scalable unified storage solution but it also meant that the majority of SWT's data could be deposited directly onto the storage which would boost reliability and performance.

SWT opted for a Nexenta Cluster based on 2 x HP head-nodes and 2 x HP JBODs with a capacity of 60TB. The two NexentaStor appliances, installed by Sievers, underpin the entire SWT infrastructure at the its headquarters data centre.

Meik Müller, IT Manager at SWT comments: 'To keep our IT-system flexible enough to react on the quickly changing energy market, we were looking for a new storage system that offered high performance, flexibility and high availability. We already had experience with Software Defined Storage but finally found the right solution with Nexenta's approach.'

BUSINESS BENEFITS

Using NexentaStor, SWT has significantly increased the performance of its storage environments while keeping its costs low. One of the key selling points for SWT was the simplicity of Nexenta. There was no need for complex licensing.

NexentaStor features such as unlimited snapshots, thin provisioning and hybrid storage pooling are designed to help enterprise customers implement cost-effective, high performance storage. In addition it supports a wide range of protocols for unified storage including CIFS, NFS, rsync and iSCSI.

NexentaStor's open source technology roots mean users are not locked in to buying more expensive products from a particular vendor or paying unnecessary mark-ups for standard features. In addition, ZFS offers massively scalable storage environments with a virtually unlimited number of snapshots, free versioning and high granularity of data protection.

Nexenta offers SWT improved performance and scalability at a very cost effective price SWT has avoided vendor lock-in so there are no concerns about following an expensive and inflexible proprietary upgrade path.

Easier administration and management, greater stability and resilience.