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Enterprise class storage for everyone

Case Study

High Availability, Scalability, and No Vendor Lock-in: CADENAS Chooses NexentaStor

Key Highlights

Industry: Software supplier

Challenge:
- Leverage existing hardware into new storage solution
- Access and speed were impeding company productivity
- Cost, cost, cost

Solution: NexentaStor 3.0.4 with HA Cluster Plug-in

Benefits:
- Deduplication, unlimited snapshots, thin provisioning, and hybrid storage pooling
- File compression and thin provisioning enable efficient management of large datasets by using fewer hard drives
- Fewer servers needing to be purchased, lower power consumption, and increased administrative efficiency were achieved

Business Overview

German parts management and process chain optimization specialist CADENAS is an independent software supplier with offices in Europe, the U.S., and Asia. Products include intelligent parts management, parts consolidation and classification, specialized product configurators, and digital product catalogues.

The company develops off-the-shelf and custom-made enterprise solutions for customers worldwide and is the only company that can offer next generation CAD-native 3D parts catalogue management and hosting.

Today, CADENAS provides CAD components from 260 manufacturers to 2,800,000 engineers and designers.

Challenges

Data Management: Hosting 3D images of industrial parts presented CADENAS with a number of data storage challenges. With thousands of engineers relying on the company to provide consistent access to data, the company required a highly available storage solution that allowed multiple users to access the same data at the same time, from different devices with minimal disruption.

Usable Hardware: The company did not want any of its hardware to go to waste, but finding a traditional storage vendor prepared to configure such a solution proved to be a problem. CADENAS decided to explore the option of deploying hybrid storage pooling.

Vendor Lock-in Costs: CADENAS was using a legacy storage vendor but was unhappy with the cost associated with being locked in to using proprietary hardware and software.

"Nexenta offers a hardware-independent storage solution based on ZFS, with a fair pricing strategy/policy: You only pay for what you want or need."

—**Ralf Humpfer,** Head of IT Systems & Infrastructure, CADENAS GmbH

The company wanted to re-evaluate the relationship with its existing supplier and considered more flexible enterprise storage alternatives.

Access Speed: With a large number of installed SATA hard disk drives (HDDs), CADENAS wanted to find a way of including its commodity HDDs in a proposed future solution that would use much faster solid state disks (SSDs) to speed up data access.

Solution Overview

CADENAS had some experience with ZFS and had been impressed with the technology's scalability, the OpenStorage architecture, and the relatively low operational and licensing costs.

After examining configuration options and services from a number of storage vendors for its unified storage strategy, CADENAS decided to standardize on NexentaStor, the leading hardware-independent storage solution built on ZFS.

The Nexenta Solution

NexentaStor's technology allowed the company to deploy a range of industry-standard hardware in its new storage configuration, saving on hardware costs while expanding capacity and preparing for future demand. CADENAS is no longer tied down to long-term contractual obligations or limitations, does not suffer from vendor lock-in, and no longer needs to buy proprietary hardware.

NexentaStor's hybrid storage pooling allowed CADENAS to retain the HDDs from its previous storage configuration while investing in SSDs for the faster data access it required.

NexentaStor supports a wide range of protocols for unified storage, including CIFS, NFS, rsync, iSCSI, Fibre Channel, SATA, and AoE. The NexentaStor HA Cluster Plug-in provides global access, in a range of time zones, with consistent data access, to the large 3D image catalogues hosted by CADENAS.

NexentaStor allows for simultaneous connections from multiple servers and clients, so data on the company's servers can be shown to multiple users on multiple devices at the same time.

NexentaStor gives CADENAS almost limitless future scalability, along with the capability to expand capacity more cheaply using commodity hardware, including SSDs. With NexentaStor, CADENAS is well-placed to meet whatever increases in storage infrastructure and access demands it encounters in the future.

Business Benefits

Presently, old and new hardware can be integrated into the same stack while still being able to upgrade to SSDs. Pairing the scalable ZFS with lightning fast SSDs provides optimal performance. Utilizing disparate resources, CADENAS quickly can scale the system to meet increasing demand without the legacy price tag.

Deduplication, unlimited snapshots, thin provisioning, and hybrid storage pooling provide CADENAS with a cost-effective, high performance storage solution.

File compression and thin provisioning enable efficient management of large datasets by using fewer hard drives while generating a lower carbon footprint.

With the benefit of fewer servers needing to be purchased, lower power consumption and increased administrative efficiency were achieved.

Employing NexentaStor solutions, CADENAS significantly improved data management and access speed, avoided vendor lock-in, and cut costs by about 70% when compared to legacy storage systems.

System Configuration

- NexentaStor 3.0.4 and HA Cluster Plug-In
- 2 DataON DNS 1400 JBODs
- Zstor turnkey solution
- 4x LSI 9200-8E Controller
- Intel XEON E5620 Westmere CPUs
- 2.5" SSD disks for ZIL & L2ARC

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Nexenta Systems is the leading supplier of enterprise-class OpenStorage solutions. Its flagship software-only platform, NexentaStor, delivers high-performance, ultra-scalable, cloud- and virtualization-optimized storage solutions.

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