nexenta™ Case Study

Dataoppdrag AS®

Hosting and Managed Services

Use Case
Complete storage upgrade required due to growing customer base

Requirement
Mirrored-system approach to provide high availability and scalable storage for company expansion

Solution
Single Storage Management Interface

NexentaStor™

- 128-bit file system
- 2 x Supermicro appliances
  - 100TB raw storage
  - 40TB of usable storage
  - Deployed as VM storage (using iSCSI and NFS) and NAS (using CIFS)
- Incumbent storage solution with 20TB utilized as VM storage
- Four 10Gb multimode connections (two for iSCSI and two for CIFS and NFS)

COMPANY OVERVIEW

Bergen-based Dataoppdrag AS began in 2002 providing service and consultancy to private and corporate customers. In 2006, they concentrated solely on the business market. Today their focus is hosting and managed services.

The company provides most Microsoft applications on a hosted basis, including Exchange, SQL Server, SharePoint and Navision, as well as vertical software that customers choose for their specific industry. They now have over 100 physical servers and 300 virtual machines using VMware.

CHALLENGES

The Company's existing storage platform was struggling to cope as Dataoppdrag AS grew and took on more customers. It could not provide the performance, flexibility or scalability needed for the company's growth.

The mirrored-system approach required to provide high availability with its existing storage system was proving too expensive for Dataoppdrag AS. They were forced to buy new storage servers whenever more storage was needed.

The Company decided that it was time to look for an alternative that would cope with the desired flexibly and rapid increase in customer data.

"NexentaStor™ has helped us to provide the highest performance, scalability and flexibility at a fraction of the cost of legacy vendors to our growing customer base. The new solution has met all of our needs offering enterprise features with the open source background we trust."

Ole Myhre
CTO
Dataoppdrag

dataoppdrag

SOLUTION

Dataoppdrag AS had six main requirements for its new storage platform; it had to be flexible, stable, deliver good performance, offer strong security, have snapshot capabilities and be open source-based. Because their previous system was based on open source, they had no reservations about continuing down that route.

All of the features could be delivered with ZFS, the 128-bit file system and logical volume manager which includes data integrity verification against data corruption, support for high storage capacities, integration of snapshots and volume management, continuous integrity checking and automatic repair.

The Company opted for Nexenta over competing vendors because it was one of the biggest players in the ZFS storage market. Nexenta could also handle the 10Gb fibre connection to the Company's disaster recovery site, which is 15km away from the data centre.

Dataoppdrag deployed NexentaStor on the two Supermicro appliances with 100TB raw storage and 40TB of usable storage, used as VM storage (using iSCSI and NFS) and NAS (using CIFS). The incumbent storage solution with 20TB has also been utilised as VM storage.

While the IOPs requirements are described as modest, it is essential for Dataoppdrag AS that storage latency does not increase during peak and VM operations because it will degrade the performance of other customers. Availability was also a major company concern. While there are no specific availability requirements at the data centre should an outage occur, it is equipped with redundant UPS and cooling, and a backup generator.

By opting for a ZFS-based solution, Dataoppdrag AS is able to replicate every ZFS file system to its primary backup storage and then to an identical backup system on its disaster recovery site.

BUSINESS BENEFITS

Deploying a NexentaStor solution has resulted in a 50% reduction in the amount of hardware Dataoppdrag AS requires for its storage solution because the data does not have to be replicated between systems to create high availability. NexentaStor's open source technology roots enables Dataoppdrag AS to use standard components in its equipment spares inventory.

Recovery time from failure has improved exponentially. By using snapshots, the company can restore a virtual machine or customer data from a snapshot instead of having to rely on backup software to do so. Data that used to take hours to recover can now be restored instantly.

NexentaStor's ZFS roots have provided Dataoppdrag AS access to massively scalable storage environments with a virtually unlimited number of snapshots, free versioning and high granularity of data protection. By deploying NexentaStor, DataoppdragAS was able to continue with its preferred option of using open source-based technology while delivering improved performance, flexibility and scalability.

NexentaStor's ZFS foundation delivers the scalability DataoppDragAS required to meet its future storage requirements and the snapshot capability to provide instant recovery of data.

The Company has reduced its hardware requirements by 50% using NexentaStor while being given the freedom to use standard components in its inventory.

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