nexenta™ Case Study

Spital Triemli Selects NexentaStor™ to Backup Critical Hospital Data

Challenge
Backup, archive and quick data recovery for several critical applications.

Benefits
Affordable storage with full data security, work as a volume for instant recovery for some of the most critical virtual servers.

Solution
NexentaStor with dual CPU server

System Configuration

- Supermicro 4U, 36 bay storage server
- 2 x Intel Xeon E5640 quad core CPUs
- 288GB RAM
- 1 x Intel X520-DA2 dual port 10GbE Nic
- 1 x 45 bay expansion shelf
- 81 x 3TB Seagate Constellation ES.2 HDDs

COMPANY OVERVIEW

Municipal hospital Spital Triemli is the second biggest hospital in the Zurich region with 11 clinics, 5 institutes and more than 500 beds in various integrated, specialized sections. Spital Triemli offers comprehensive medical services to a large section of Zurich's local inhabitants as well as specialized treatments to patients from a wider region.

Built in 1970, Spital Triemli has an up to date IT system, running countless unique medical applications for administration and treatment of more than 30,000 patients a year. Two internal data centers serve all systems creating a steadily growing amount of data. After opting for a three-tiered storage setup to backup its critical data, Spital Triemli was looking for an affordable storage solution to backup its first tier storage.

As a municipal hospital, Spital Triemli has a very limited IT investment budget. To maximize its investment, the hospital needed a solution that would provide affordable storage, offer full data security and work as a volume for instant recovery for some of the most critical virtual servers running vital applications.

CHALLENGES

A modern day hospital like Spital Triemli requires a multitude of vertical applications. For instance, the hospital proprietary radiology system, a critical system for diagnostics, is fully virtualised and needs to be available 24/7. Spital Triemli runs more than 200 virtual servers under VMware on a high available first tier storage system, with a current capacity of more than 300TB.

The backup and recovery strategy put in place by the internal IT team was designed to have a three tier storage setup with tape being the third and final tier for cheap long term backup. The second tier needed to be fast, allow for quick recovery and also have to host a second volume for instant recovery of several critical virtual applications. With a constantly growing amount of data, the tier two storage capacity would have to be easy to upgrade within budget in the future.

"The decision was easy. We needed powerful, secure and affordable storage to fulfill our mission to complete our backup and recovery strategy. NexentaStor was the only option that ticked all the boxes. It will also give us planning security for further expansions as the cost can be calculated exactly."

Gabriel Müller
Head of Operations
Spital Tremli

SOLUTION

Confronted with the challenge of finding the right second tier storage, Gabriel Müller, Head of Operations at Spital Triemli, opted for a system based on NexentaStor™, the leading storage solution based on Open Source. “The most important reason we picked NexentaStor was that it runs one white-box hardware and is much cheaper than any storage from a legacy storage vendor,” explains Müller. “It will also give us planning security for further expansions as the cost can be calculated exactly.”

In addition, NexentaStor’s built-in ZFS file system offers complete protection from data corruption, making it the perfect choice to secure the hospital’s data.

The solution provided by Swiss open storage specialist Q5 consists of two enclosures hosting 72 bays for hard disk drives with a current capacity of 250TB – enough space to save the daily snapshots of the tier one system.

Müller had no reservations in choosing an open source-based solution: “Open Source made it into the enterprise world a while ago and there are more and more very mature solutions. WordPress, SugarCRM or MySQL are good examples and NexentaStor is a good illustration of this development in storage.”

Deployment of the system took place only 2 months after the decision was made and it was up and running after 2 days.

Müller concludes: “The decision was easy. We needed powerful, secure and affordable storage to fulfill our mission to complete our backup and recovery strategy. NexentaStor was the only option that ticked all the boxes.”

Christof Zihlmann, CEO at Nexenta’s partner Q5 in Switzerland agrees: “Vendor lock-in increases the price of storage in the long run. Going with an open solution will not only save initial investment, but will also keep the cost of future expansion down.”

BUSINESS BENEFITS

Müller estimates that the hospital has saved 70% of investment by implementing Nexenta.

As NexentaStor is based on open source technology, the hospital is 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 high granularity of data protection.

No vendor lock-in makes Spital Triemli’s storage much more affordable. NexentaStor offers the highest level of data protection and ease of management to support Spital Triemli’s backup strategy.

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