



One of market leader for bioenergetic products implements a Metro High Availability Cluster with ZFS-based Open-E JovianDSS



Memon Bionic Instruments GmbH conducts research in damaging influence on the environment, producing and distributing exclusively its own high-quality products. Their transfer to a new CRM system was accompanied by increased demands on the performance of the hardware.

On one hand, all relevant data in production and sales had to be 99.9% available, but on the other hand, the space requirements for visual installation instructions and videos of the marketing department were very high.

The customer was looking for a failure-resistant, highly available and high-performance IT system. Long-term archiving is done in tape libraries with access times of less than 30 seconds. The company has already been using the XFS-based Open-E DSS V7 cluster in an Active-Passive mode.

The system critical 17 virtual machines run in a high availability configuration on 3 fast ESXi hosts. The ESXi hosts, terminal servers and shared storage installed on Intel hardware are interconnect with the production network at 10GB. Replication in the redundant shared memory is running at 25GB. All components were split into 2 fire sections.



Solution

After several tests with competing products, the decision was to start using Open-E JovianDSS because of its good performance, scalability and above all because of the ZFS file system. Another aspect was the really easy-to-use GUI. Particularly noteworthy was the robustness of the system. During the introductory phase some variants of hardware issues were also simulated. Open-E JovianDSS showed an outstanding robustness with the ZFS file system.

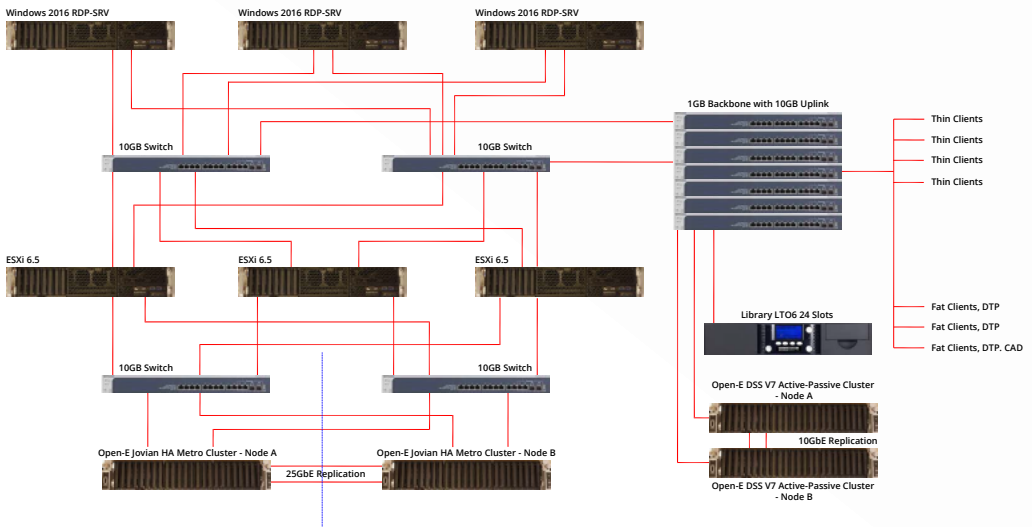
The Open-E JovianDSS HA Metro Cluster runs on 2 modern Intel machines with Purley platform. The extensive tests have shown that Open-E JovianDSS is also easily expandable. For compression, deduplication and snapshots 2 Intel Silver CPUs were enough, while RAM expansion to 512 GB per machine is a high performance boost in High Availability Metro configurations. This is especially good for the 4 virtual SQL servers. In total, 3 Intel Raid controllers with 26 SSD from Intel (10 DWPD) and Seagate (25 DWPD) per machine were installed on different RAID volumes.

Configuration per Cluster node

Server	Capricorn DP26-WFT
Processor	2 x Intel® Xeon® Silver 4112
RAM	512 GB DDR4 2666, ECC, Reg.
RAID	RAID-1 (Boot): Intel Raid Controller 3008 2x Raid-50 (Hot-Data): Intel Raid Controller 3516 with SuperCap 3x RAID-1 (SSD cache): Intel Raid Controller 3108 with SuperCap
SSD	26 SSDs from Intel and Seagate
Ethernet	4x 10 GB Ethernet onboard, 2x 25 GB Ethernet (SFP +)
Software	Open-E JovianDSS

Hardware setup

Memon Bionic Instruments GmbH Network setup with Open-E JovianDSS High Availability Metro Cluster and Open-E DSS V7 Active-Passive Cluster (soon to be archived)



Customer feedback

„The employees in the terminal server sessions with the frontend of the CRM were impressed by the high performance of Open-E JovianDSS. As a test, we also ran these SQL VMs on the old DSS V7 cluster. The initial opening of an address database (about 2.2 billion addresses) took up to 22 seconds in the old system, the second opening went down to 17 seconds. The same VMs open the address database on Open-E JovianDSS system in less than 2 seconds. The second opening of all databases is obviously not measurable because of the good caching. In addition, videos for online training and internal promotional purposes run from Open-E JovianDSS Cluster did not indicate any performance slumps to date. Memon has confirmed the full success of the system.“

About Memon Bionic Instruments

The management and research department of Memon aims to protect people and animals holistically from the increasing environmental pollution. Effective „Made in Germany“ products are the result of continuous research. Lectures and information events also help to raise and expand people’s awareness of the link between pollution and the deterioration of well-being and quality of life.

About Team 103

Already in 1987, Team 103 GmbH employees were involved in the prototype development of geological reconnaissance equipment as part of DFG projects at the Technical University of Munich. In 1994, the IT system house Team 103 GmbH was founded in Rosenheim (BY) as a company for data technology and communication. In 2001 they relocated their administration and development departments to Neukirchen a. Simssee. The production was outsourced to the Riedering site. Since 2012, additional services have been offered and new special equipment developed in the newly founded department of CNC model technology.

For our worldwide active customers we offer complete solutions. For more info visit: <https://team103.com/>

About Open-E

Open-E, founded in 1998, is a well-established developer of IP-based storage management software. Its flagship product Open-E JovianDSS is a robust, award-winning storage application which offers excellent compatibility with industry standards, and is the easiest to use and manage. Additionally, it is of the most stable solutions on the market and undisputed price performance leader. Thanks to its reputation, experience and business reliability, Open-E has become the technology partner of choice for industry-leading IT companies. Open-E accounts for over 30,000 installations world-wide and has received numerous industry awards and recognition, also with its product Open-E DSS V7.

For further information about Open-E, its products and partners, visit www.open-e.com

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