



# Virtual Computing

## Cloud Computing provider achieves great flexibility and performance with Open-E JovianDSS Metro Cluster

Virtual Computing is a Cloud Computing services provider for small and medium sized businesses. As the company is one of the pioneers in the field of workplace hosting and cloud computing who has been developing rapidly since its establishment, they required the best-in-class data storage solutions for their own business.

The company has already been successfully using Open-E's DSS V7 XFS-based Data Storage product since 2014. But along with the growth of the company their IT requirements started growing as fast as the company itself and thus they had to decide for a new solution that would fulfill all their business requirements. They needed a High Availability twin data center storage product with iSCSI in an Active-Active mode. Being already satisfied with the cooperation with Open-E they decided to implement the ZFS-based Open-E JovianDSS in a Metro Cluster setup to their IT environment.



# Solution

The Open-E JovianDSS Metro Cluster with On- & Off-site Protection turned out to be a tailor-made solution for Virtual Computing. Open-E JovianDSS includes failover functionality not only for iSCSI, but also for FC and NFS, SMB (CIFS), so users are able to set up High Availability Load-Balanced Storage Clusters that ensure reliability and redundancy through failover in case of a server crash. For Virtual Computing, as a service provider, the most important goal was providing 100% availability in a twin datacenter setup. They were using 10Gbit DWDM connections for their storage network. The Open-E JovianDSS Metro Cluster offered them secure data storage options in both of their datacenters, with highest speed access and failover.

Additionally, Open-E JovianDSS enabled the company to achieve high retention rates of snapshots on their business critical Virtual Machines without compromising the performance and at the same time maintaining data consistency. Open-E JovianDSS allowed them to create an unlimited number of snapshots which can be asynchronously replicated to their local and remote locations according to specific retention plans. The basic compression in turn, allowed the company to save around 60% of storage space without using deduplication. As for hardware, the company used Supermicro Servers, each with 20TB Full SSD.

## Configuration per Cluster node

<b>Server</b>	1 x Supermicro SC216BE1C-R920LPB, 2U
<b>CPU</b>	2 x Intel® Xeon® Scalable Silver 4108 Processor - 8 Cores - 16 Threads - 1.8Ghz - 3Ghz turbo - 85W
<b>Motherboard</b>	Supermicro X11DPI-NT with 6 x PCI
<b>RAM</b>	8 x Samsung 32GB DDR4 2666Mhz Registered ECC
<b>HBA</b>	1 x Supermicro AOC-S3008L-L8E, LSI 3008
<b>SSDs</b>	2 x ZHBACK Samsung PM863a Enterprise SSD, 240GB 10 x ZHCB Samsung PM863a Enterprise SSD, 1.92TB
<b>NICs</b>	2 x Supermicro AOC-STG-I2T Network Card, 10Gbit/sec RJ45 Ethernet, X540 chip

# Cluster setup

Open-E JovianDSS Metro High Availability Cluster



## Customer feedback

Robin Damen, CEO at Virtual Computing

„Open-E DSS V7 did the job during the first years but as our business requirements were growing we needed even more flexibility than before. The Open-E JovianDSS ZFS-based solution provides us with the demanded flexibility. What is more, thanks to the Metro Cluster setup we can now provide our twin datacenter with high speed SSD storage.“

# About Virtual Computing BV

Virtual Computing was founded in 2006 by Robin Damen who started the development of workplace hosting, a service where companies can easily and quickly organize their IT affairs.

The company was one of the pioneers in the field of workplace hosting and cloud computing. Robin Damen gained a lot of experience during his first years at the company at larger organizations where Terminal Server and Virtualization were used.

Virtual Computing has now grown into a full-fledged ICT service provider for small and medium-sized businesses. With a team of 7 motivated professionals, the company offers its customers daily customization, flexibility and personal service, always optng for a fair and transparent working method and clear communication with the customer when developing its services. Every organization is different and therefore the company offers every customer a suitable solution.

Virtual Computing now manages more than 2000 end users all over the world. With more than 300 end customers, they are still growing every year.

# 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 <http://www.open-e.com>

More information:  
**Virtual Computing BV**  
+31 137110324 | [info@virtualcomputing.nl](mailto:info@virtualcomputing.nl)

**Open-E GmbH**  
+49 (89) 800777 0 | [info@open-e.com](mailto:info@open-e.com)