Open-E & Optima Packaging
A SUCCESSFUL MIGRATION FOR EXTENDED DATA STORAGE POSSIBILITIES

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Executive Summary

> Optima Packaging Group GmbH is a company that produces filling and packaging machines. They're headquartered in Germany, but their activities are global.

> They needed a data storage system that could match their specific needs in terms of centralized management and protection over globally-stretched infrastructure.

> After a positive experience with using Open-E DSS V7, they decided on Open-E JovianDSS as a base for their new system operations.

> The final effect equipped Optima's data storage with a set of new features for better data storage management and protection.

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OPTIMA

Challenges & Objectives

With its main office in Schwäbisch Hall, Germany, **OPTIMA Packaging Group GmbH** is a global company that produces filling and packaging machines for various sectors, such as food, cosmetics, healthcare, and paper hygiene. The company is at the forefront of the industry in terms of quality and innovation.

Back in 2012, **Manuel Kuss, Optima's System Administrator, turned to Exomium, Open-E's Gold Partner, and IT system integrator,** to find a solution that would help to match the company's needs, such as central management and protection of the globally stretched, **virtualized data storage system** with multiple appliances in different locations.

The main challenges that Manuel had to deal with included:

- Managing and protecting data storage to support operations on a global scale
- Continuous monitoring of the whole system infrastructure
- Centralization of the data storage management
- Dealing with disasters and threats
- Data storage virtualization
- Constant production operations

They chose Open-E as a software base for the created solution. **The initial system was based on Open-E DSS V7**, which at the time was one of Open-E's top solutions for data storage and protection. The final effect of this cooperation matched all of Optima's requirements and enhanced company data storage capabilities for years to come.
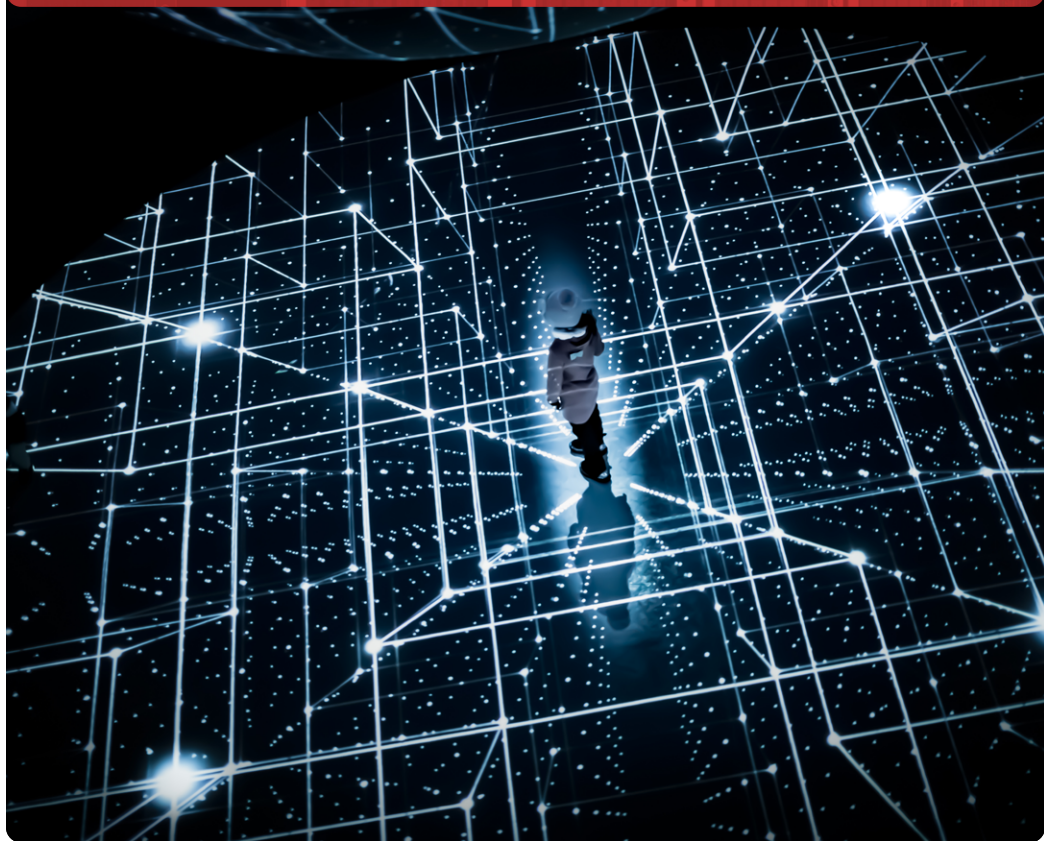
However, the years have passed, and **at some point, the Open-E DSS V7-based data storage system was reaching its limits in terms of capacity**. The old requirements stayed the same, yet there was still a place for improvement. Open-E had even more advanced software that could not only help extend the available space but also **enhance the system with extra features to raise its reliability and resilience.**

Testimonial

Based on our experience, Open-E was, of course, the obvious choice. We then looked at the Open-E JovianDSS solution, which simply won us over with its feature set. These are the familiar features of the ZFS Data System with snapshot technology and Open-E On- & Off-Site Data Protection. These were simply good solutions that made the product interesting for us.

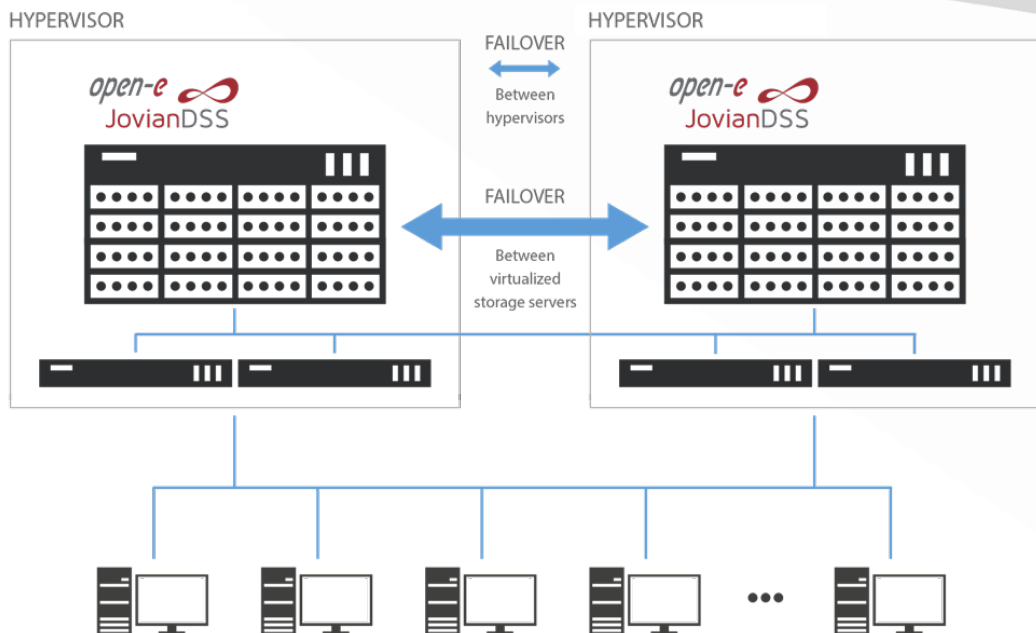Manuel Kuss, Senior System Administrator at Optima Packaging.

Solution

To raise the system capacity and dependability, **Manuel decided to migrate the whole system from Open-E DSS V7 to Open-E JovianDSS and configure it in a hyper-converged infrastructure** with our software running as virtual machines on VMware. For the new system, new hardware was used, while the old parts were reused as components for a backup appliance that was configured using the **Open-E JovianDSS On- & Off-Site Data Protection feature**.

The new solution was set up as a **Non-shared Active-Passive High Availability Cluster** with 1 pool on each node, one serving as a production appliance and the other used as a redundant node. When it comes to virtualization, VMware was used as a hypervisor. Additionally, the system was empowered with a **backup solution (3rd node), created by reusing hardware components acquired from the company's previous Open-E DSS V7-based system**. It is a great way to give a new life to already-owned hardware. It is also worth mentioning that this **approach was very friendly for both the environment and the budget**.

The system empowered Optima Packaging with several features that **ensured constant, smooth, and safe operations**. Additionally, Manuel pointed out several aspects and features that were especially important from his perspective during the implementation process:

- **Flexibility:** in terms of system configuration, but also considering the virtualization, as during the pre-deployment process, the system was prepared in advance to deal with a growing number of virtual machines.

- **Easy to set up:** the whole implementation process turned out to be clear and smooth, resulting in a seamless transfer from the Open-E DSS V7 to Open-E JovianDSS.

- **Snapshots feature:** one of the best solutions to ensure data storage system stability and to protect it from such threats like ransomware attacks or other unwanted changes in the system.

- **Open-E On- & Off-Site Data Protection:** ultimate data protection solution that empowered Optima Packaging to protect their data on the highest level by creating backups not only locally but also in another location so that even natural disasters won't harm their data.

HYPERVISOR

HYPERVISOR

FAILOVER
Between hypervisors

FAILOVER
Between virtualized storage servers

Results

The new system implementation and migration from Open-E DSS V7 to Open-E JovianDSS turned out to be very intuitive and easy. It allowed Manuel to create an even more complex and powerful environment with advanced data protection configurations that ensure continuous operations in all of Optima Packaging's locations. Additionally, thanks to the hardware-agnostic nature of Open-E JovianDSS, **Manuel was able to reuse old parts from his Open-E DSS V7-based system** and create a backup solution that was configured with Open-E JovianDSS On- & Off-Site Data Protection feature. Moreover, the system was **prepared to perfectly match Optima Packaging's virtualization needs**, letting them run a centrally managed system for more control and easy monitoring of the system status.

After a very positive experience with Open-E DSS V7, Manuel was convinced that Open-E software would be the best solution to extend the company's data life. **In the end, he was highly satisfied again**, empowered with our top-notch data storage solution based on Open-E JovianDSS.

Hardware details

Chassis	2x Super Micro 436+
Motherboard	2x Super Micro
CPU	2x Xeon Gold 6226R
RAM	2x 256 GB
NIC	2x Intel I210 Gigabit, x2 Intel X550 10G
HBA	2x Broadcom LSI 9400-8i
Disks	32x Seagate Exos X10 ST16000NM004J (16TB)
Cache	2 x Seagate Nytro 3732 XS800ME70084 (800GB)

Data Storage Configuration

High Availability	Active/Passive Non-shared Cluster
Redundancy	4-way Mirror
Zpool	2, One per node

Data Storage OS Licenses

Licenses	2x Open-E JovianDSS Product License 0TB 1x Open-E JovianDSS Advanced Metro HA Cluster Feature Pack 2x 256TB Open-E JovianDSS Storage Extension
Support Licenses	2x 3 Years Open-E JovianDSS Standard Support

Do you still use
Open-E DSS V7?
Learn more about migrating to Open-E JovianDSS!

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OPEN-E DSS v. **7**

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Open-E DSS V7
End-Of-Life Guide

Open-E DSS V7 is a Linux and XFS-based data storage software released in 2012. It was one of the best-selling Open-E's products, appreciated by customers and experts worldwide. The system won many awards, including the Storage Insider Readers' Choice Award 2019 and the IT Professional Product of the Year 2018. **Open-E has decided that the system will reach its end of life on November 1st, 2024.** After this date, the product's licenses will not be available for purchase, and Open-E will stop providing software updates.

"The reason for discontinuing Open-E DSS V7 is Open-E's focus on the ZFS-based Open-E JovianDSS product line, which offers superior performance, reliability, and scalability. Open-E JovianDSS, a high-performance ZFS- and Linux-based data storage software for enterprise environments, supports features such as tiered RAM and SSD caching, thin provisioning, deduplication, compression, snapshots, clones, replication, and high availability." **Krisztof Franek, CEO at Open-E.**

www.open-e.com

About Optima Packaging

Optima Packaging is a global company, founded in 1922 in Germany. It is a leader in filling and packaging technology for various products, from liquids to solids. The company has about 3,000 employees who create, produce, and deliver innovative solutions, systems, technologies, and services. They mainly serve the pharmaceutical and biotech industries, hygiene products, consumer goods, and other demanding sectors. Optima Packaging is committed to using digital technologies strategically and beneficially, giving its customers a competitive edge. This shows its leadership and innovation in its field.
Find more information on: **https://www.optima-packaging.com/en**

About Exomium

Exomium is a company that delivers outstanding customer value. Since 1999, Exomium has focused on computer networking and NAS/SAN storage solutions. Their storage server series, powered by Open-E, is one of their key products. Exomium trains their technical and sales team regularly to meet their customers' needs. They can custom-tailor their storage servers. They offer cutting-edge technology at competitive prices. They stand out for their customer satisfaction and technological innovation.
Find more information on: **https://www.exomium.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 that offers excellent compatibility with industry standards. It's also the easiest to use and manage. Additionally, it is one of the most stable solutions on the market and an 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 38,000 installations worldwide. Open-E has also received numerous industry awards and recognition for 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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