Open-E Use Case

Executive Summary

An innovative technology firm specializing in AI-driven fuel management solutions partnered with Open-E and EUROstor to address their growing data storage needs.

The collaboration, initiated in January 2023, enabled the company to implement a robust and scalable infrastructure, **leveraging Open-E JovianDSS with ZFS and High Availability.**

This strategic choice ensured the company could achieve exceptional reliability and system flexibility with a future-ready solution supporting the expansion and zero-downtime updates.

open-e
JovianDSS

Business Challenge

The company needed a robust data storage infrastructure to accommodate its critical AI models and extensive data generated from aircraft performance analytics. The requirements included:

- **Scalability**
  Starting with 100TB and expanding to 500TB over five years without service interruptions.

- **Reliability**
  Achieving 99.99% uptime, including rapid failover capabilities—less than 60 seconds for large arrays and under 10 seconds for smaller ones.

- **Operational Efficiency**
  Eliminating significant downtime during system updates and software patches.

Finding the Right Solution

The company embarked on an extensive search, evaluating various data storage technologies such as virtual storage platforms and distributed clusters. Their selection criteria focused on:

- **High Availability** and data replication options

- **Cost-effectiveness** and independence from proprietary hardware

- A flexible, open-source-based system for **seamless future upgrades**

Following the consulting firm's recommendations, the company chose Open-E JovianDSS implementation.

Implementation Highlights

The company deployed an **Open-E JovianDSS-based High Availability Shared Storage Cluster** with the following specifications:

Storage configuration

Licenses:	2x Open-E JovianDSS Product license 0TB 1x Open-E JovianDSS Standard HA Cluster Feature Pack 1x Open-E JovianDSS Storage Extension 128TB
Features:	High Availability, Failover, 2-tier Cashing, Encryption
Support license:	2x 5 years Premium Support (From 20TB to 128TB of storage)
Storage configuration:	High Availability Shared Storage Cluster

Challenges and Solutions

The implementation faced an early challenge with random HDD connection resets. The Open-E Support Team rapidly addressed the issue, updating the firmware to maintain system performance and reliability. The system never went offline, showcasing the resilience of the Open-E technology.

Impact and Results

After the implementation, they experienced significant improvements:

- **Seamless Updates**
  Routine updates no longer require team-wide coordination, allowing for efficient operations.

- **Operational Stability**
  Consistent 99.99% uptime ensures uninterrupted access to critical AI data models.

- **Ease of Management**
  Simplified infrastructure management and expansion capabilities.

Future Plans

As the company aims to **extend its backup strategy by integrating ZFS replication and enhancing disaster recovery and data protection**, this step was crucial to continuously focusing on sustainability and fuel-saving technology innovation.

Customer Feedback

CEO of the company expressed satisfaction with the streamlined infrastructure:

We have forgotten about the worries of data storage. Now, we simply add connections, new volumes, disks, and perform updates, which are straightforward and no longer require orchestrating the entire development team.

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 40,000 installations worldwide.**
It has received numerous industry awards and recognition. For further information about Open-E, its products, and partners, visit www.open-e.com.

About EUROstor

EUROstor has been a manufacturer of storage systems for more than 12 years. Originally manufacturing RAID systems, today the main part of the product portfolio are server based systems, acting as flexible storage servers, tailor-made for the customers' needs. Solutions range from small file servers and CCTV storage to high available storage clusters, scale-out clusters and cloud solutions. EUROstor is located in Filderstadt near Stuttgart (Germany) sells to professional end users all over Europe, SMBs, universities and research institutes and data centers.

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