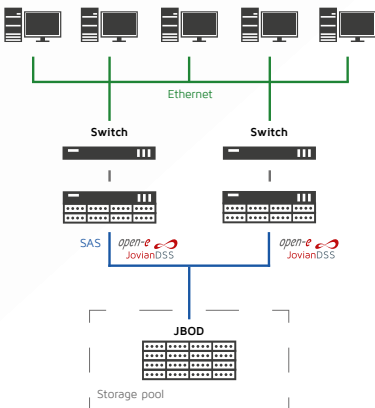




## Aviation Accounting Center improves the processing and storage of geospatial data with Open-E JovianDSS

by **entry**

Industries like state land cadastre, urban cadastre, road sector, hydro and electric power, agriculture and forestry, geology and other, cannot handle their work without well-developed remote data sensing regarding digital aerial photography, aerial laser scanning, thermal aerial survey, or space imagery. The calculated geospatial data sets are being processed and forwarded to the customers in a form of orthophotomaps, topographic and thematic maps, 3D models of cities, etc.



The data collected by Aviation Accounting Center (AAC), as well as the results of their processing, are unique, valuable and above all, enormous. Therefore, servers and data storage systems have an important role in the IT system of the company. Flexibility, performance and scalability by volume are a must. Current large numbers of terabytes of geospatial data are soon to be turned into significantly bigger amounts of data within next couple of years.

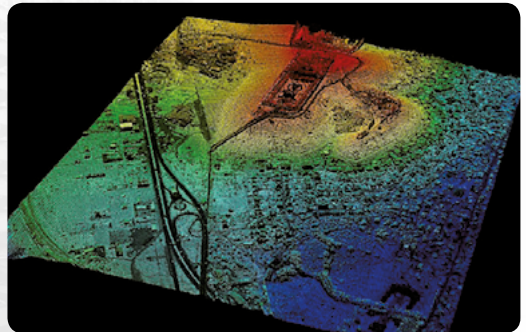
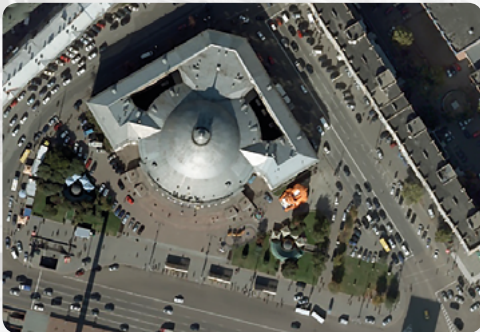
*open-e*   
JovianDSS

# Solution

In order to fulfill the growing demands of the company, Entry, a leading Ukrainian manufacturer of servers and storage systems, proposed a software-defined solution (SDS) in a High Availability Load-balanced Storage setup with Open-E JovianDSS, a specialized OS based on Linux and the ZFS file system. Physically, it is a cluster built of two servers and a JBOD with a shared direct access.

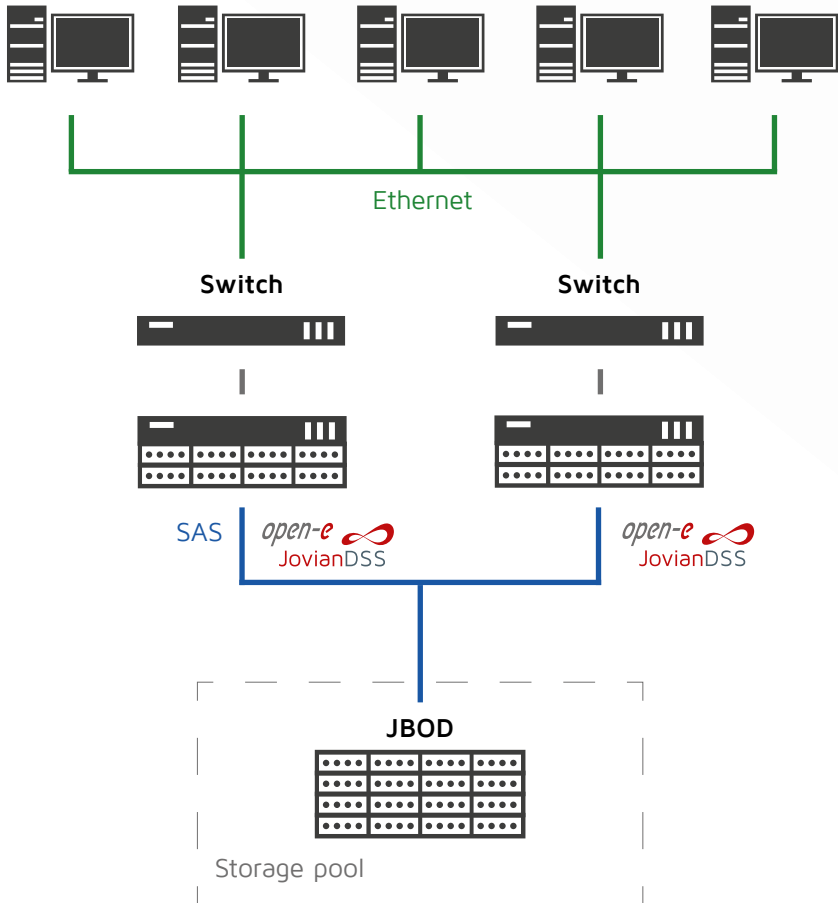
## Advantages of Software Defined Storage:

- › Inexpensive storage of several hundred terabytes of data (the volume of the basic HGST 4U60 JBOD with a 240TB raw capacity can be expanded)
- › Flexibility when it comes to selecting the interface and the protocol for connection of a storage system to the infrastructure (40Gb Ethernet-based network, iSCSI block protocol and NFS, SMB 3.1.1 file protocols are supported)
- › High performance thanks to a built-in support for hybrid SSD/HDD pools
- › A powerful RAID Copy-On-Write with three physical HDD for fault tolerance
- › Easy replication, thanks to built-in data integrity checks and support for an unlimited number of snapshots
- › Automatic service reports embedded in SNMP management
- › Implementation of the storage system on typical components to simplify and reduce the costs of support
- › Easy management and adaptable to growing application requests



# Hardware setup

In order to guarantee continuous and automatic calculations, a server with two Intel Xeon processors E5-2699A (22 physical cores, 2.40GHz) and 256GB of RAM is used. The server is connected to the storage via Mellanox SX1012 40Gb Ethernet switch, providing an unprecedented performance when processing large (from 20TB) data volumes.



## About Entry

Entry focuses on the manufacturing of high-density server and storage equipment optimized for compact, manageable, breakdown-tolerant data systems. Entry integrated solutions are perfectly tailored to enterprise and data centers operations, telecommunication applications, billing, supercomputers and clusters for mission-critical applications - wherever demanded are: high performance, reliability, scalability according to enterprise business growth. Module-based approach to IT infrastructures design enables Entry to offer optimal platform architecture and competitive server solutions for dynamically growing companies with increasing information flow. More on <http://www.entry.ua/>

## About AAC

Aviation Accounting Center (AAC, trademark «Aerogeoinformatics») is a leading geo-engineering company in the field of collection and processing of geospatial data, the basis to geo-information systems. The company carries out orders in Ukraine and around the world. Details on: <http://www.avia.org.ua/en/>

## About Open-E

Open-E is a well-established developer of IP-based storage management software. Open-E JovianDSS, Open-E DSS V7 and the free Open-E DSS V7 SOHO are robust, award-winning storage applications which offer excellent compatibility with industry standards, and are the easiest to use and manage. Additionally, they are some of the most stable solutions on the market and undisputed price performance leaders. Open-E accounts for over 30,000 installations world-wide and has received numerous industry awards and recognition. Thanks to its reputation, experience and business reliability, Open-E has become the technology partner of choice for industry-leading IT companies. For further information about Open-E, its products and partners, visit [www.open-e.com](http://www.open-e.com)

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