



## Abacus Electric Jova1



The Abacus Jova1 storage server with Open-E JovianDSS is a high performance and low power cost storage box offering flexible IO options (10 / 25 / 40 / 50G). It features the latest low-latency NVMe SSDs as well as an Intel Xeon-D processor. Built-in support for unlimited snapshots provides highest data security and enables the setup of an individual backup plan. The server can be equipped with up to 128GB DDR4 Cache to additionally boost performance.

With these hardware and software features, Jova1 is a perfect choice for setting up Private Clouds that require smart utilization of all storage resources, at the same time enabling an easy management and problem-free maintenance by the administrator.

- › Enhanced storage performance
- › Optimal resource utilization
- › Simplified management
- › Optimized for Private Cloud
- › Data integrity check
- › Data compression
- › Tiered RAM and SSD Cache
- › Unlimited number of snapshots and clones

## Enhanced storage performance

Nowadays, enterprise storage has to provide big capacity while also being fast, affordable and include reliable support. This is exactly what Jova1 has to offer. Open-E JovianDSS-based Jova1 is an innovative hybrid storage system fusing the capacity of HDDs with the performance of SSDs in a single solution that offers high performance while lowering cost. Additionally, by leveraging capacity optimization technologies and advanced tiered SSD and RAM caching, Jova1 provides an overall efficiency boost and increased cache performance. On top of that, powerful tuning tools allow the system to optimize on I/O heavy databases or high throughput video editing equally well and predefined profiles save annoying testing time.

## Optimal resource utilization

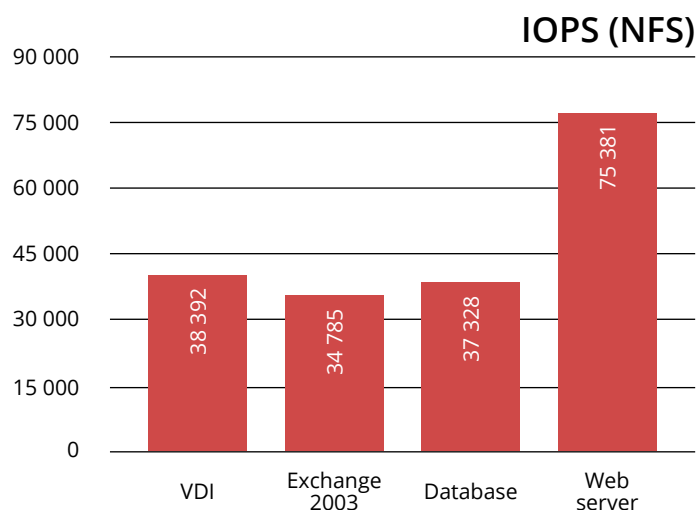
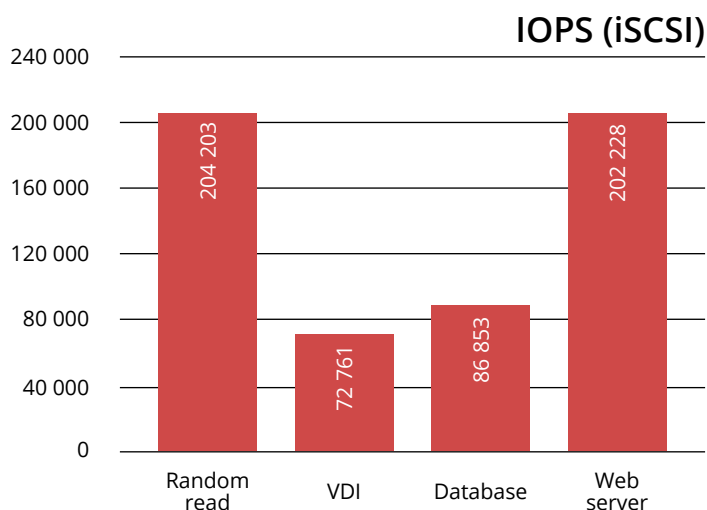
Jova1 fully utilizes your storage resources thanks to many high-end features included in Open-E JovianDSS. These features are especially crucial when deploying virtual environments. With deduplication and compression you are able to virtually increase your storage size and use thin provisioning to easily grow physical storage capacity without downtime. More efficient use of disk space also allows for longer disk retention periods. Tiered caching will allow reaching high performance values from all disks which can be managed and monitored in Jova1. This server fully leverages hybrid storage, combining high performance and high capacity at an affordable price.

## Simplified management

Managing Open-E JovianDSS and its extensive features is easy and intuitive compared to many competing solutions on the market. The WebGUI provides a quick overview and management of all storage resources and features. After extensive analyses of storage usage and user interaction the clicks per step in each functionality have been reduced to a minimum, i.e. in creating iSCSI targets or when expanding the size of your storage. This way, you are able to quickly and easily manage Jova1 with Open-E JovianDSS, barely involving actions of a storage administrator.

## Optimized for Private Cloud

A private cloud combines flexibility and scalability of a public cloud with the isolation and security required by many large organizations, since the storage system is located at your desired location. It is an ideal solution for service providers (MSPs), independent software vendors (ISVs), and resellers that manage resources for their end users. With Jova1 you get to design your own redundant environments and can easily distribute access to resources across various teams in your organization. It is a very secure solution that gives you total control over your data and allows you to grow as your company grows.



# High performance and optimal data security

## Data integrity check

The Jova1 storage system effectively detects data corruption, as even minor integrity violations could cause loss of data. Jova1 ensures reliability by check-summing individual blocks of data and once faulty blocks have been detected they are automatically rewritten. If the same error is found several times the data blocks are moved to different parts of the HDD. Each read/write is checked automatically plus you can schedule to perform checks on not accessed blocks. All actions are done in atomic writes to ensure consistency of your data and to reduce data loss, even during power cuts.

## Data compression

The Open-E JovianDSS-based Jova1 offers data compression for minimizing your storage capacity usage. Smaller data blocks means that the system can read and write quicker, ultimately boosting performance and taking less space on your storage. In Jova1 you will find resource-friendly compression protocols (lz4) with low system resource utilization at medium compression rates, but also protocols that are able to achieve very high rates for archiving or backup (as gzip-9). Compression in combination with deduplication, virtualization or high availability solutions further reduce acquisition costs, power and cooling costs, and rack space throughout the system lifecycle.

## Tiered RAM and SSD Cache

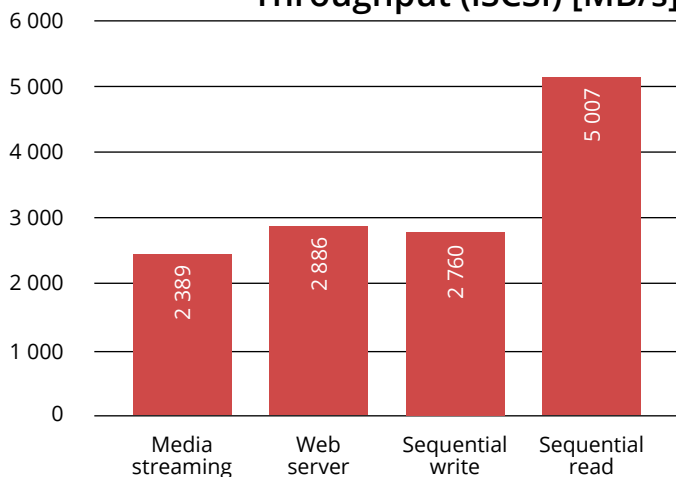
Open-E JovianDSS-based Jova1 works as a tiered storage environment - dramatically speeding up access to frequently accessed files. It uses a caching algorithm to cache "often used" and "recently used" data separately, and provides the best performance for your storage by tiering hot data between RAM and SSD Cache. In Jova1 data is always saved on HDDs and only Hot Data is stored in RAM and SSD to ensure data safety and increase performance.

## Unlimited number of snapshots and clones

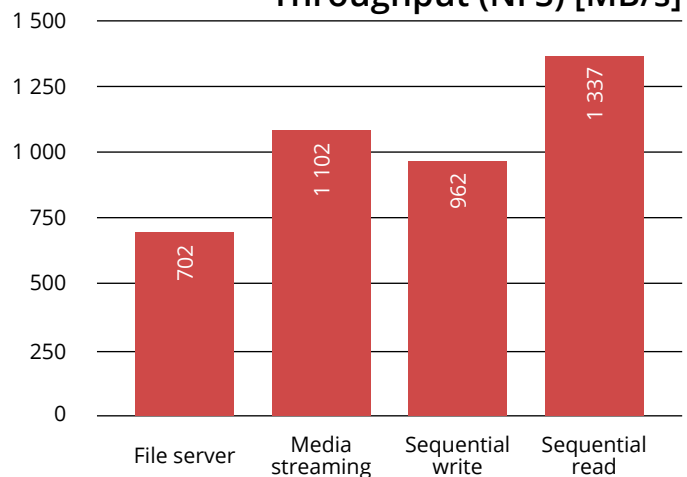
Every Open-E JovianDSS-based Jova1 allows an unlimited number of snapshots and clones - greatly simplifying back-ups, replications and data recreation in case of accidental deletes or viruses. Snapshots are read-only points-in-time and allow for easy roll-back. They are a must-have option for effective disaster recovery scenarios and in Jova1 you may schedule snapshots for months, weeks, hours or even minutes. Whereas, a clone is a writable copy of a snapshot and allows to easily duplicate virtual machines and scale out for virtual networks instantly and without duplicating data.



Throughput (iSCSI) [MB/s]



Throughput (NFS) [MB/s]





# Abacus Jovian

## Hardware information

	Default configuration	Options
CPU	Intel® Xeon® Processor D-1518 Quad core 2.20GHz	Intel® Xeon® Processor D-1537 Eight core 1.7GHz
RAM	4x32GB DDR4 ECC	4x32GB DDR4 ECC
RAW capacity	28TB	56TB / 84TB
Read cache	400GB NVMe SSD	480GB / 960GB / 1,92TB NVMe SSD
Write log	2 x 200GB high-endurance	-
Hard drive interface	SAS2 LSI-based	-
Network interface	2 x 10GbE-T 2 x 1GbE-T	Up to 2 from the following options: 2 x 10GbE-T 2 x 10GbE SFP+ 2 x 25GbE SFP28 2 x 40GbE QSFP+ 2 x 50GbE SFP28
Form factor	3U	3U
Weight	43kg	-
Power	Redundant 500W	-
Fan	3 x 80mm Hot-swap PWM fans 2 x 80mm Rear-exhaust fans	-
Power consumption	Idle: 450W (Estimated) Load: 715W (Estimated)	-

## About Abacus Electric

Founded in 1992, Abacus Electric is the largest Czech server specialist, which has over its history developed its services from box-mover over bare-metal servers assembling to delivering tailor-made storage and servers solutions.

Servers and storages are Build-to-Order (BTO) according to project requirements. With the advanced Abacus web-based configurator, anyone can easily and efficiently design and order the requested system or just save it for further discussion with our focused pre-sales team. Our trained and dedicated FAEs provide Abacus customers with the optional On-Site Service (SLA) for servers, storages, and solutions.

Backed up by industry leaders, such as Supermicro, Intel, Asus, Broadcom, Open-E, Suse Linux, and many others, Abacus is the right partner for "No Vendor Lock-in" storage and server solutions for private / public cloud, virtualization, HPC, and other.

## About Open-E

Open-E is a well-established developer of IP-based storage management software. Open-E JovianDSS and Open-E DSS V7 are robust, award-winning enterprise 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 27,000 installations world-wide and has received numerous industry awards and recognition. Thanks to our 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 <http://www.open-e.com/>

## Partner Contact

**Abacus electric, s.r.o.**  
**Planá 2**  
**37001 Ceske Budejovice**  
**Czech Republic**

E-mail: [servers@abacus.cz](mailto:servers@abacus.cz)  
Website: [www.abacus.cz](http://www.abacus.cz)  
Phone: +420 (387) 001450

## About the Open-E JovianDSS Server Certification

Open-E JovianDSS delivers software-defined storage which results in a wide variety of different hardware requirements such as performance range, capacity capability, and connectivity. To ensure compatibility and robust storage environments, all selected partners offer storage systems which are tested, benchmarked and certified by Open-E. This way, customers are able to use solutions that require exceptional security and redundancy, without compromising performance.