High Availability Ready ES-8700 JDSS

Benefit from scalable ZFS data storage with EUROstor's ES-8700 JDSS and Open-E JovianDSS. This software-defined storage solution is well-suited for a wide range of applications. It caters perfectly to the needs of enterprises that are looking to deploy a flexible storage configuration which can be expanded to a high availability cluster. EUROstor and Open-E can look back on a long-term strategic partnership. As a Platinum Partner, EUROstor has always been working hand in hand with Open-E to develop and deliver innovative data storage solutions. In fact, EUROstor supports worldwide enterprises in managing and protecting their storage with more than 300 cluster installations to date.

By partnering with EUROstor and Open-E, you receive highly efficient and reliable storage solutions that offer:

- Great adaptability
- Tiered and all-flash storage systems
- High IOPS through RAM and SSD caching
- Superb expandability with EUROstor's high-density JBODs – without downtime

EUROstor's ES-8700 JDSS offers not only great features, but also great flexibility – thanks to its modular architecture.

- Guaranteed data protection
- Enhanced storage performance
- Flexible scalability
- Optimized for Data Centers
- High Availability
- Tiered RAM and SSD Cache
- Data compression and in-line deduplication
- Thin provisioning and unlimited number of Snapshots

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ES-8700 JDSS

Guaranteed data protection

Data is your most important resource. This is why the Open-E JovianDSS-based ES-8700 JDSS includes several mechanisms for data protection. Automatic and scheduled multi-layer data integrity checks ensure data consistency, while unlimited snapshots and clones make it is easy to implement a disaster protection strategy and to instantly roll back to a previous point-in-time. At the same time, a scheduled self-healing mechanism fixes malfunctions and automatically restores full data redundancy in the system.

Enhanced storage performance

Nowadays, enterprise storage has to provide large capacity while also being fast, affordable and offering reliable support. This is exactly what the ES-8700 JDSS has to offer. The Open-E JovianDSS-based ES-8700 JDSS 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, the ES-8700 JDSS provides an overall efficiency boost and increased cache performance. On top of that, powerful tuning tools allow the system to optimize equally well on I/O heavy databases or high throughput video editing while predefined profiles save testing time.

Flexible scalability

The ES-8700 JDSS will let you experience unlimited flexibility and minimize unappreciated downtime. Open-E JovianDSS uses a 128-bit file system that includes unlimited snapshots for easy backup, unlimited clones for easy duplication, unlimited capacity with volume sizes up to one Zetabyte, as well as unlimited amount of disks which can be increased on the fly without effort by using thin provisioning. There are no limitations and you may easily control the total cost of ownership and expand your storage infrastructure as data grows.

Optimized for Data Centers

The ES-8700 JDSS is optimized for the modern data center and ready for compute-intensive applications that involve big data, intensive virtualization workloads and higher-density server configurations. The server allows administrators an intuitive management of storage infrastructures and the maintaining of continuous operations during updates or refreshes. By choosing the ES-8700 JDSS you benefit from flexible CPU power, networks running 1, 10, 40 or 56Gb Ethernet, and also from the knowledge and experience of EUROstor in developing ES-8700 JDSS servers specifically for data centers.

Active-active failover resource switching time test results

Total number of targets	Switching time [seconds]	Performance test results [passed/failed]
2	21	passed
10	29	passed
20	28	passed

High Availability solution functionality test results

Functionality test name	Functionality test results [passed/failed]
Automatic Failover triggering after reboot test	passed
Automatic Failover triggering after power-off	passed
Automatic Failover triggering after I/O test	passed

Service and support that you need

Tiered RAM and SSD Cache

The Open-E JovianDSS-based ES-8700 JDSS 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 SDD Cache. With the ES-8700 JDSS data is always saved on HDDs and only Hot Data is stored in RAM and on SSDs in order to ensure data safety and increase performance.

Data compression and in-line deduplication

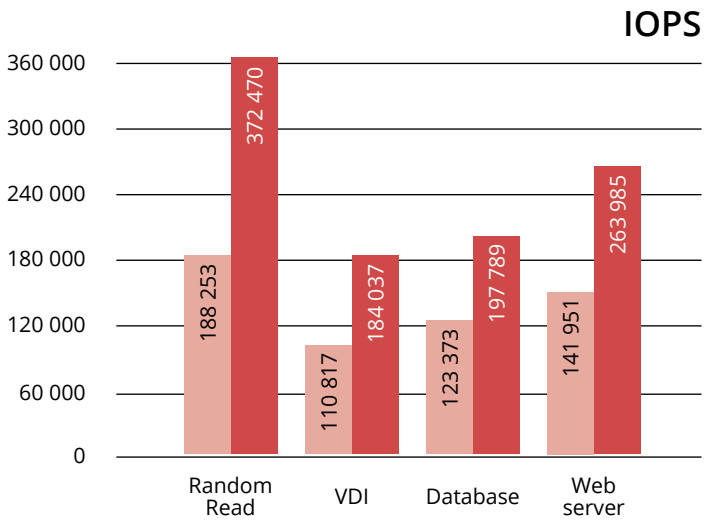
The ES-8700 JDSS offers data compression tor minimizing storage capacity usage and ultimately boosting performance and occupying less space on your storage. You can choose from resource-friendly compression protocols (lz4) with low system resource utilization at medium compression rates as well as from protocols that are able to achieve very high rates for archiving or backup (such as gzip-9). The in-line deduplication feature of the ES-8700 JDSS removes redundant data and minimizes storage capacity usage. The software checks each block for redundancy in the system and if it finds a match the new block is not written; instead, a shortcut leading to the original block is created. Such a system can achieve deduplication ratios of 3:1 or more, which means that placing 3TB of data might only use 1TB of physical disc space. This feature is especially interesting for highly repetitive data, e.g. in VDI, server virtualization or backup, where much higher deduplication ratios can be reached.

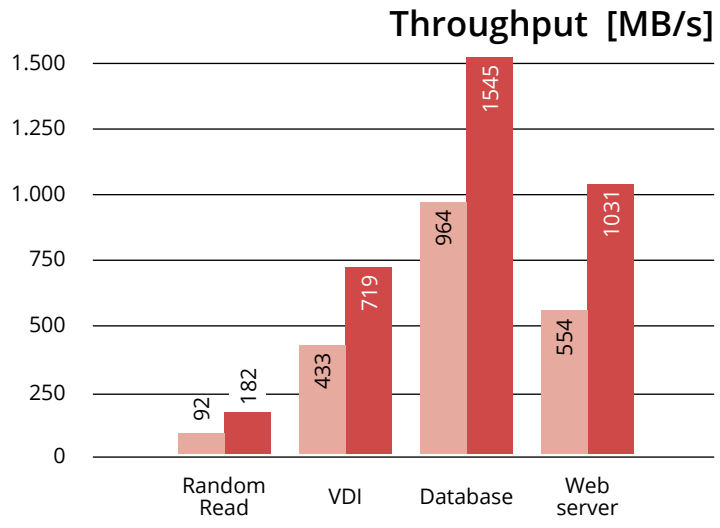
High Availability

The ES-8700 JDSS is a perfect option if you are looking to deploy a High Availability cluster setup with NFS or iSCSI for storing business-critical data. With the Open-E JovianDSS High Availability Cluster Feature Pack the ES-8700 JDSS ensures reliability and redundancy through failover in case of a failure. By using the cluster management software, all features related to the cluster setup can be quickly accessed and maintained - everything is in one place and guarantees ease of use for the storage administrator. Moreover, Open-E JovianDSS includes an independent Virtual IP (VIP) addresses feature. With this feature, VIPs can be used by multiple servers and flexibly switched at all times. When a hardware failure is detected, VIPs are automatically moved from the primary to the secondary node without the client servers noticing a timeout.

Thin provisioning and unlimited number of snapshots

The ES-8700 JDSS uses thin provisioning to improve your storage utilization by allocating an exact amount of server space at the required time. You eliminate the cost of unused storage space and never again have to pre-allocate storage up front and buy too much hardware. There is no need for evaluating storage requirements and taking the risk of rebuilding the entire system when it runs out of space. Also, every ES-8700 JDSS server allows an unlimited number of snapshots – greatly simplifying backups, replications and data recreation in case of accidental deletes or viruses. Snapshots are a must-have option for effective disaster recovery scenarios. Schedule snapshots on a monthly, weekly or hourly schedule – or even by the minute. With the ES-8700 JDSS it is easy to manage storagecapacity and set notifications when physical space becomes a limiting factor.





ES-8700 JDSS

Hardware information

	Default configuration	Options
CPU	2 x Intel® Xeon® Processor E5-2630 v3 2.40GHz	Intel® E5-2600 v3 family (up to 18 cores per CPU)
RAM	128GB DDR4 2133MHz	Up to 1TB DDR4 RAM
RAW capacity	5.5TB	Scalable to Petabytes
Read cache	400GB	All certified SAS SSDs
Write log	400GB mirrored	All certified SAS SSDs
Hard drive interface	12Gb/s SAS	-
Network interface	4 x 10GbE	1/10/40/56GbE optional (RJ-45 or SFP+ / QSFP)
Form factor	2U Rack (17.2" x 24.8" x 3.5")	Different chassis sizes available
Weight	24kg	-
Power	2 x 720W AC Gold Plus	-
Fan	3 x 80x80x38mm 4-pin PWM fans	-

About EUROstor

EUROstor has been manufacturer of storage systems for more than 10 years, located in Filderstadt near Stuttgart (Germany). Main products are EUROstor RAID systems and server based storage solutions sold to professional end users all over Europe.

Contact Information:

EUROstor GmbH
Hornbergstrasse 39
70794 Filderstadt
Germany

E-mail: sales@EUROstor.com
Website: www.EUROstor.com
Tel.: +49 711/707091-70
Fax: +49 711/707091-60

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/**

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.