Open-E JovianDSS
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ES-8724DJDSS25

The ES-8724DJDSS25 is a high performance storage system optimized for databases, file servers and virtualization tasks. It is possible to build a fully redundant and fault-tolerant solution with features easily accessible from the intuitive Open-E JovianDSS browser-based interface.

A big advantage of this server is the high CPU ratio compression, NFS performance of 4 GB/s and big RAM Cache of 128 GB. Also, ES-8724DJDSS25 has high I/O from 12 Gbit backplane connected to a 12 Gbit SAS HBA and 12 Gbit Drives, and can be upgraded with a second processor. Unlike traditional infrastructures, the ES-8724DJDSS25 allows to integrate with VMware, Citrix and Microsoft Hyper-V environments.
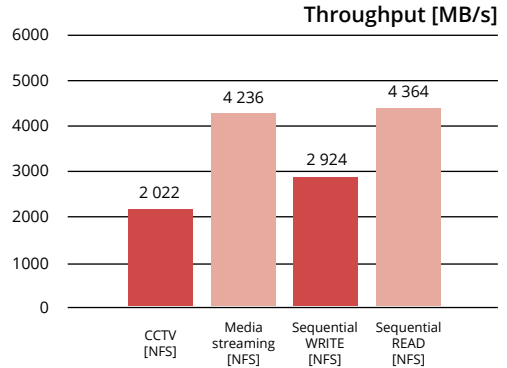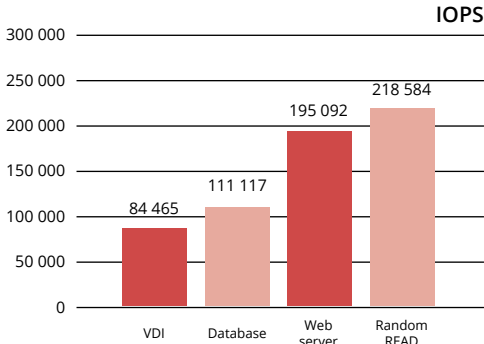
Suitable applications:

- **VDI**
- **Databases**
- **Media Streaming / CCTV**
- **High RAM cloud servers**
- **Exchange / SQL Server**

In ES-8724DJDSS25 RAM Cache performance is increased by 10-20% with DDR4-2133, compared to DDR3. This is essential for high performing storage environments. For best compression and deduplication results EUROstor uses one single Quad Core CPU, each 3,5 GHZ and 128 GB RAM with 2133 MHZ. The system can be expanded with another CPU up to 1 TB memory.

EUROstor provides professional support with Open-E JovianDSS Certified Engineers. This strategy ensures that you are supported from deployment to daily business. Since many years, customers have been using the combination of EUROstor hardware with Open-E software and now, with ZFS-based Open-E JovianDSS you are able to build software-defined storage for Enterprise business.

> Guaranteed data protection
> Data compression / in-line data deduplication
> Enhanced storage performance
> Flexible scalability
> Simplified management
> Data integrity check
> Unlimited number of snapshots and clones
> Tiered RAM and SSD Cache

IOPS

300 000	
250 000	
200 000	218 584
150 000	195 092
100 000	111 117
50 000	84 465
0	

VDI — Database — Web server — Random READ

Throughput [MB/s]

6000	
5000	
4000	4 236 — 4 364
3000	2 924
2000	2 022
1000	
0	

CCTV [NFS] — Media streaming [NFS] — Sequential WRITE [NFS] — Sequential READ [NFS]

Guaranteed data protection

Data is your most important resource. This is why the Open-E JovianDSS based ES-8724DJDSS25 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. Even when a disk fails, the software-based spare function offers one disk to several RAID arrays, saving you money on extra hardware without compromising data safety.

Enhanced storage performance

Nowadays, enterprise storage has to provide big capacity; while also being fast, affordable and include reliable support. This is exactly what ES-8724DJDSS25 offers. It is an innovative Hybrid Storage System fusing the capacity of HDDs with the performance of SSDs in a single solution offering high performance while lowering cost. Additionally, by leveraging capacity optimization technologies and advanced tiered SSD and RAM caching, ES-8724DJDSS25 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. Plus, predefined profiles save annoying testing time as well as money on unnecessary components. True hardware independence.

Flexible scalability

The ES-8724DJDSS25 enables you to experience unlimited flexibility and to minimize the 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 Zeta Byte, as well as an unlimited amount of disks which can be increased on the fly without effort by using thin provisioning. There are no limitations and you can easily control the total cost of ownership and expand your storage infrastructure as your data grows.

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 simple 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 case of creating iSCSI targets or when expanding the size of your storage. This way, you are able to quickly and easily manage ES-8724DJDSS25 with Open-E JovianDSS, barely involving actions of a storage administrator.

With the service and support that you need

Data integrity check

The ES-8724DJDSS25 system effectively detects data corruption, as even minor integrity violations could cause loss of data. ES-8724DJDSS25 ensures reliability by checksumming individual blocks of data. Once faulty blocks have been detected they are automatically rewritten. If the same error appears 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 blocks that are not accessed. All actions are done in atomic writes to ensure consistency of your data and to reduce data loss, even during power cuts.

Unlimited number of snapshots and clones

Every Open-E JovianDSS based ES-8724DJDSS25 allows an unlimited number of snapshots and clones - greatly simplifying backups, replications and data recreation in case of accidental deletions and viruses. Snapshots are read-only points in time and allow an easy roll-back. They are a must-have option for effective disaster recovery scenarios and in ES-8724DJDSS25 you may schedule snapshots for months, weeks, hours or even minutes. Whereas, a clone is a writable copy of a snapshot that allows to easily duplicate virtual machines and scale out virtual networks - instantly and without duplicating data.

Tiered RAM and SSD Cache

Open-E JovianDSS-based ES-8724DJDSS25 works as a tiered storage environment - significantly speeding up the access to frequently accessed files. It uses a caching algorithm to cache "often used" and "recently used" data separately, and it provides the best performance for your storage by tiering hot data between RAM and SDD Cache. In ES-8724DJDSS25, data is always saved on HDDs and only Hot Data is stored in RAM and SSD to ensure data safety and to increase performance.

Data compression

The ES-8724DJDSS25 offers data compression for minimizing your storage capacity usage. Smaller data blocks ensure that the system can read and write quicker, ultimately boosting performance and taking less space on your storage. In ES-8724DJDSS25 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 back-up (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 system lifecycle.

Details

Hardware information

	Default configuration	Options
CPU	Intel® Xeon® Processor E5-2637 v3 3.50GHz	2 CPUs
RAM	128GB DDR4 2133 MHz	Up to 1TB
RAW Capacity	13.2TB	Up to 39.6TB (10K rpm), still more with JBODs
Read Cache	400GB	Up to 800GB
Write Log	16GB Zil optimized	16GB Zil optimized mirrored
Hard drive interface	SAS 12 Gbit	-
Network interface	6 x 10GbE	Up to 12 x 10GbE
Form factor	2U Rack with 12 3.5" disks (16.93" x 27.95" x 3.44")	3U with 16 3.5" disks 4U with 24 3.5" disks
Weight	30kg	-
Power	2 x 920W	-
Fan	3x 80mm 7000 RPM PWM fans	-

About EUROstor

EUROstor is a European storage manufacturer located in Filderstadt, Germany (near Stuttgart). President of EUROstor is Franz Bochtler. We develop, manufacture and sell high quality storage systems to the European market, designed for professional use and according to the specific needs of large and medium enterprises, research centers and universities.

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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.