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open-e


JovianDSS

OpenStor

NFS/iSCSI SAN Storage ZFS Based OS



OpenStor Jovian

The OpenStor Jovian addresses the needs of enterprise users looking for high-performance, high-capacity SAN storage systems.

Only best components are used on the 12Gb/s SAS3 platform. From High-Endurance HGST SSDs to Intel 10 and 40 GbE network adapters - every component is carefully selected to offer supreme performance, guaranteed reliability, and unlimited scalability. At the same time, OpenStor Team provides technical support on a software and hardware level simultaneously, for best and fastest possible customer service and support.

Suitable applications:

- iSCSI SAN
- Private Cloud
- Cloud Infrastructure
- Enterprise Data Center
- VDI

OpenStor Jovian allows easy and intuitive integration with VMware, Citrix and Microsoft Hyper-V environments. It was tested for each of the applications above and performed reliably with maximum performance, since the configuration is easily adaptable to the present requirements.

- Optimized for Private Cloud
- Guaranteed data protection
- Optimal resource utilization
- Simplified management
- In-line data deduplication
- Data compression
- Unlimited number of snapshots and clones

www.openstor.net

OpenStor Jovian

Enhanced storage performance

Nowadays, enterprise storage has to provide big capacity; while also being fast, affordable and include reliable support. Exactly what OpenStor Jovian Series based on Open-E JovianDSS has to offer. OpenStor Jovian Series based on Open-E JovianDSS 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, OpenStor Jovian Series based on Open-E JovianDSS 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.

Guaranteed data protection

Data is your most important resource. This is why the OpenStor Jovian Series based Open-E JovianDSS Storage OS includes several mechanisms for data protection. Automatic and scheduled multi-layer data integrity checks ensure data consistency, while unlimited Snapshots and Clones make it 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.

Flexible scalability

The OpenStor Jovian Series based on Open-E JovianDSS will let you experience unlimited flexibility and minimize unappreciated downtime. 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's no limitations and you may easily control the total cost of ownership and expand your storage infrastructure as data grows.

Optimal resource utilization

OpenStor Jovian Series based on Open-E JovianDSS 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 to reach high performance values from all disks which can be managed and monitored in OpenStor Jovian Series based on Open-E JovianDSS. This server fully leverages Hybrid Storage, combining high performance and high capacity at an affordable price.



High performance with new technology



In-line data deduplication

The in-line deduplication feature on OpenStor Jovian based on Open-e JovianDSS removes redundant data and minimizes your storage capacity usage. The software checks each block for redundancy in the system and if it finds a match the new block isn't written; instead, a shortcut leading to the original block is created. Such a system can reach a deduplication ratio of 3:1 or more, which means that if you place 3 TB of data on OpenStor Jovian system it will only use 1TB of physical disc space. This feature is especially interesting for highly repetitive data, i.e. in VDI, server virtualization or backup, where much higher deduplication ratios can be reached.

Data compression

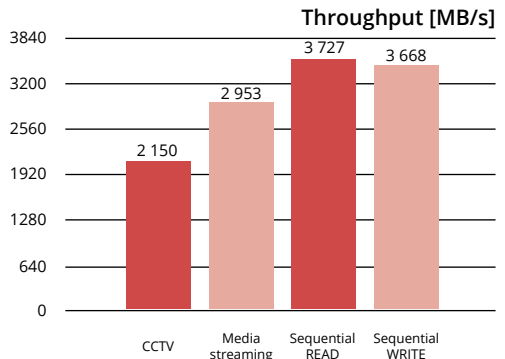
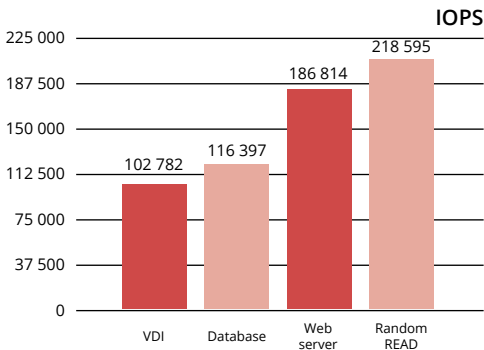
The OpenStor Jovian Series based on Open-E JovianDSS offers data compression for minimizing your storage capacity usage. Smaller data blocks means that the system can read and write quicker, ultimately boosting performance and taking less space on your storage. In OpenStor Jovian Series based on Open-E JovianDSS 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 system lifecycle.

Unlimited number of snapshots and clones

Every OpenStor Jovian Series based on Open-E JovianDSS allows an unlimited number of snapshots and clones - greatly simplifying backups, replications and data recreation in case of accidental deletes and 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 OpenStor Jovian Series based on Open-E JovianDSS 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.

Tiered RAM and SSD Cache

OpenStor Jovian Series based on Open-E JovianDSS 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 OpenStor Jovian Series based on Open-E JovianDSS data is always saved on HDDs and only Hot Data is stored in RAM and SSD, to ensure data safety and increase performance.



Details

Hardware information

	Default configuration	Options
CPU	2 x Intel® Xeon® Processor E5-2620 v3 2.40GHz	All Intel® Xeon® E5-2600-V3 Certified CPU
RAM	256 GB DDR4 2133Mhz ECC Registered	up to 1.5TB DDR4 2133Mhz ECC Reg
RAW Capacity	10.8TB	scalable to petabytes
Read Cache	400GB	scalable up to >1TB
Write Log	200GB (redundant)	scalable up to 800Gb
Hard drive interface	SAS3 12Gb/s	-
Network interface	4 x 10GbE NIC (copper) 2 x 10GbE Intel® X520 SFP+ port (fibre)	up to 16 x 10GbE up to 8 x 40GbE SPF+
Form factor	2U Rack (16.93" x 27.95" x 3.44")	-
Weight	35kg	-
Power	920W high-efficiency power supply, redundant with PMBus and I2C - Platinum Certified	-
Fan	3 x Redundant and hot-swap cooling fans	-
Power Consumption	227W (idle) 390W (load)	-

About OpenStor

OpenStor is a storage brand of Share Distribuzione srl, which is the leading Italian manufacturer and distributor of Server and Storage since 1997. Share Distribuzione srl is an official distributor of Supermicro, Areca and HGST partner, and has many years of experience and know-how in the Unified Storage Servers thanks to a strong partnership with Open-E since the market launch of first Open-E NAS storage OS, this allows Share distribuzione srl to obtain many success stories in particular with storage systems with HA Active-Passive and Active-Active based on Open-E DSS V7 and JovianDSS.

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/>

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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.