Sandico Jovian NSS HA Metro Cluster

With more than 30 years of experience as a renowned manufacture of excellent server and storage solutions, ICO Innovative Computer GmbH offers with Sandico Jovian NSS HA Metro Cluster a new storage solution especially for small and medium businesses which do not own a dedicated server rack. Preconfigured with the powerful Open-E JovianDSS, both systems are mounted in tower systems that fits in every room, even in small offices and do not need a dedicated server room or rack. The utilized AMD EPYC processor, fast SSDs and tiered RAM combined with Open-E JovianDSS, provides a high-performance Metro Cluster with no single point of failure.

Sandico Jovian NSS HA Metro Cluster is pre-configured for high-availability with ultra-low latency for a variety of applications and use-cases. All stored data is replicated in 4-ways between both nodes in real-time. Based on the advanced features of Open-E JovianDSS like data compression, snapshots and offsite replication, Sandico Jovian NSS HA Metro Cluster provides a solid storage solution for all use-cases modern business needs.

> Enhanced storage performance
> Flexible scalability
> Simplified management
> Optimized for Private Cloud
> High Availability
> Data integrity check
> Thin provisioning
> Data compression

Compact Storage ICO Sandico Jovian NSS HA Metro Cluster

Enhanced storage performance

Nowadays, enterprise storage has to provide big capacity while also being fast, affordable and include reliable support. This is exactly what Sandico Jovian NSS HA Metro Cluster has to offer. Open-E JovianDSS-based Sandico Jovian NSS HA Metro Cluster is an innovative data storage system fusing the capacity of small - large SSD's to create flexible all flash based solutions that offers high performance while lowering the cost. Sandico Jovian NSS HA Metro Cluster 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.

Flexible scalability

The Sandico Jovian NSS HA Metro Cluster 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.

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 Sandico Jovian NSS HA Metro Cluster 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 re-sellers that manage resources for their end users. With Sandico Jovian NSS HA Metro Cluster 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

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High Availability

The Sandico Jovian NSS HA Metro Cluster 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 Sandico Jovian NSS HA Metro Cluster 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, 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.
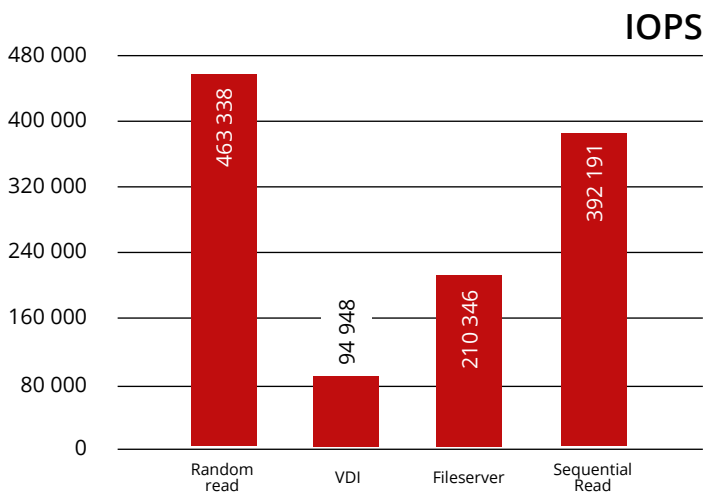
Data integrity check

The Sandico Jovian NSS HA Metro Cluster storage system effectively detects data corruption, as even minor integrity violations could cause loss of data. Sandico Jovian NSS HA Metro Cluster 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 SSD. 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.
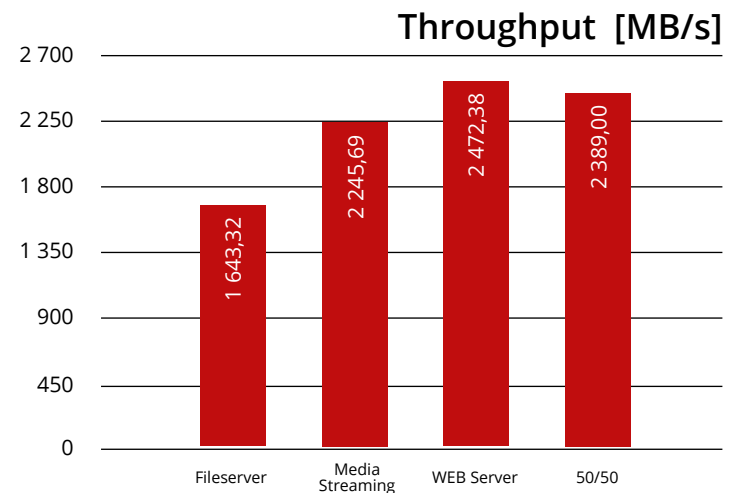
Thin provisioning

Sandico Jovian NSS HA Metro Cluster uses thin provisioning to improve your storage utilization by allocating just the exact amount of server space at the time it is required. You'll eliminate the cost of unused storage space and never again have to pre-allocate storage up front and buy too much hardware. In Sandico Jovian NSS HA Metro Cluster there is no need for evaluating storage requirements and take the risk of rebuilding the entire system when it runs out of space. With this system it is easy to manage storage capacity and set notifications when physical space shrinks. This is a highly scalable solution – just add physical disks as your data grows.

Data compression

The Open-E JovianDSS-based Sandico Jovian NSS HA Metro Cluster offers data compression for minimizing your storage capacity usage. Smaller data blocks mean that the system can read and write quicker, ultimately boosting performance and taking less space on your storage. In Sandico Jovian NSS HA Metro Cluster 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.

IOPS

463 338	94 948	210 346	392 191
Random read	VDI	Fileserver	Sequential Read

iSCSI Active-Active

Throughput [MB/s]

1 643,32	2 245,69	2 472,38	2 389,00
Fileserver	Media Streaming	WEB Server	50/50

iSCSI Active-Active

Hardware details

For each of the 2 servers

	Default configuration	Options
Motherboard	Supermicro H11SSL-i	-
CPU	1x AMD EPYC 7232P 8-Core Processor	-
RAM	2x 32GB Micron MTA36ASF4G72LZ-2G6D1	4x 32GB
Storage raw capacity	16TB	-
SSDs	16x 1.9TB Intel® SSDSC2KB019T8	16x 3,8TB or 16x 960GB Intel® SSD
Read cache	-	-
Write log	-	-
Drive controller	1x Microsemi Adaptec HBA 1100-16i	-
Network interface	1x Intel® Ethernet Controller I210-AT 1x Intel® Ethernet Converged Network Adapter X550-T2 1x Intel® Ethernet Converged Network Adapter X710-DA2	-
Form factor	Tower	19 Zoll 2HE

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IT-COMPETENCE SINCE 1982

About ICO

The ICO Innovative Computer GmbH evolved at the beginning of 1991 from the 1982 founded Klaus Jeschke Hard- und Software GmbH and has an experience of more than 35 years as a distributor and importer of computer- and communication-components inside the young IT-branch.

Especially in the field of industry- and high-performance-server ICO has satisfied by the implementation of complex individual requests, entirely according the build-to-order-principle. The qualified consultation as Intel® Channel Partner Premier Member supports customers during the realization of their projects and agrees foresighted planning with performance optimization and minimizing of costs - completely as you desire.

Of course ICO offers also individual storage solutions. The product range reaches from entry-level solutions inside the small- and home-office-area (SOHO) up to the HA Metro Cluster in the high-end-area.

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About Open-E

Open-E, founded in 1998, is a well-established developer of IP-based storage management software. Its flagship product Open-E JovianDSS is a robust, award-winning storage application which offers excellent compatibility with industry standards, and is the easiest to use and manage. Additionally, it is of the most stable solutions on the market and undisputed price performance leader.
Thanks to its reputation, experience and business reliability, Open-E has become the technology partner of choice for industry-leading IT companies. Open-E accounts for over 35,000 installations world-wide and has received numerous industry awards and recognition, also with its product Open-E DSS V7.
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.