



SENYUM Supermicro All-NVMe HA Cluster

The **SENYUM Supermicro 1U-STR-NVMe HA Cluster** is a balanced, flexible, and high-performance **High-Availability (HA) cluster system** designed to meet the data storage needs of medium-sized companies. This system is designed to provide a redundant and fault-tolerant data storage solution in a compact **1U rack**.

The **Supermicro HA Cluster 1U-STR-NVMe** system is engineered for peak performance and reliability in any environment. It features a robust **Super X13DDW-A motherboard** and **two Intel Xeon Silver 4410 processors** (20 total cores at 2.7GHz) to handle demanding workloads without performance drops, even with intense database access.

This versatile 1U system supports options for **4, 8, or 10 NVMe disks** (up to 30TB each) and massive scalability with **up to 4TB of RAM**. It provides ultra-fast data integrity and flow thanks to **four 10Gbit network cards** and a **high-performance 100Gbit dual-port replication interface** between the two nodes.

This **Open-E JovianDSS-based storage system** unifies the unique features of software-defined storage with compact, ultra-fast, and scalable hardware. It is particularly geared towards delivering **shared iSCSI SAN data storage** or a block storage system with high availability to virtualization platforms like **VMware, Proxmox**, and other Hypervisor systems.

This solution is ideal for customers who require a data storage system that is always operational and can withstand availability issues caused by hardware or network connection failures.



Medium-sized
Companies



SAN
Data Storage



Block Storage



Virtualization



High-density
Storage



open-e 
JovianDSS

Multi-purpose High-Density SENYUM Supermicro 1U-STR-NVMe HA Cluster System

High-performance All-NVMe Data Storage

The **SENYUM Supermicro HA Cluster** delivers superior, high-speed NVMe data storage performance. Leveraging Micron 7500 PRO NVMe™ SSDs, this advanced solution is designed for exceptional speed and reliability across various demands, including I/O-intensive databases and virtualization environments. You can maximize efficiency by using robust tuning tools to customize performance, or simply select from predefined profiles to streamline setup and reduce operational complexity.

Data integrity check

The **SENYUM Supermicro HA Cluster** proactively safeguards your data through continuous integrity checking. Using sophisticated checksum techniques, the system validates every data block to detect and instantly correct any discrepancies or errors. If an issue persists, the data is automatically moved to a secure, new location. The cluster performs these integrity checks continuously during all read and write operations, as well as on infrequently accessed blocks, to ensure your data is always accurate and protected.

Thin provisioning

The **SENYUM Supermicro HA Cluster** enables Thin Provisioning to give you efficient, adaptable storage without upfront cost. This feature eliminates the need to over-reserve space by dynamically allocating storage only when data is actually written. This means you only pay for the capacity you use. With Thin Provisioning, you can create flexible, scalable data storage volumes that expand automatically as your data grows, removing the risk of unexpected space shortages or costly system overhauls.

Unlimited Snapshots and Clones

Ensure robust disaster recovery with the **SENYUM Supermicro HA Cluster's** unlimited Snapshots and Clones. Integrated with Open-E JovianDSS, the system gives you the power to instantly restore data after a deletion, corruption, or ransomware attack. You get full control to customize read-only snapshot schedules and closely monitor storage metrics, including setting alerts for low physical space. These features guarantee optimal performance and efficiency without limits on how many **snapshots or clones you create**.



Maximize your business's data storage performance and reliability with the **SENYUM Supermicro All-NVMe HA Cluster**. Contact us today to learn more and enhance your data storage capabilities!
Explore the solution now!



The SENYUM Supermicro 1U-STR-NVMe HA Cluster: Powering Mid-sized Companies with Cutting-Edge Performance



Data compression and in-line

The **SENYUM Supermicro HA Cluster** maximizes storage efficacy through integrated in-line deduplication and data compression. Deduplication typically achieves a 3:1 storage efficiency ratio (3TB of logical data occupies 1TB of physical space), which is highly beneficial for data-intensive environments such as VDI, server virtualization, and backup operations. The system also offers a selection of compression protocols to accommodate diverse performance and archiving objectives.

Guaranteed data protection

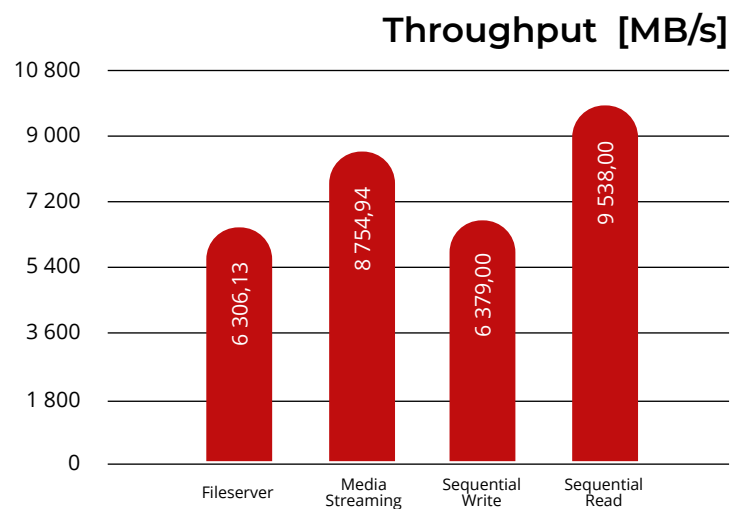
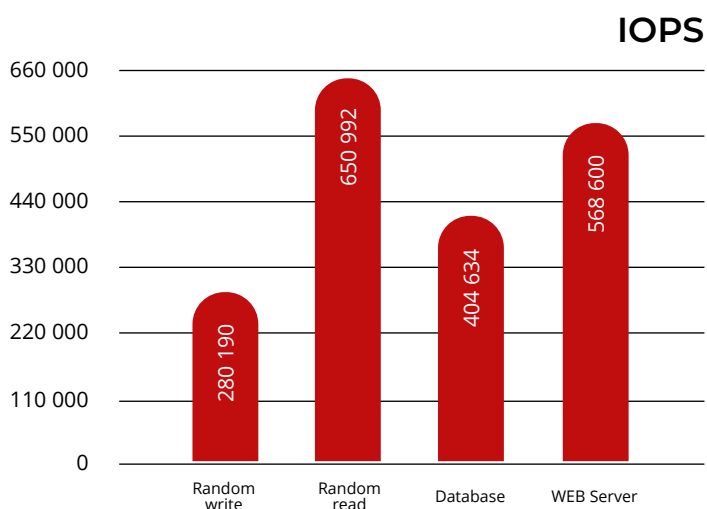
Your data is fully secured and resilient with the SENYUM Supermicro HA Cluster, which integrates **multiple layers of protection via Open-E JovianDSS**. The system ensures continuous data integrity through automatic and **scheduled integrity checks** that detect and instantly correct errors, while a sophisticated self-healing mechanism moves faulty data to a safe location, ensuring redundancy. For flexible backup and rapid recovery, you benefit from unlimited snapshots and clones, and in the event of hardware failure, built-in **RAID arrays** provide an essential layer of security, resulting in a comprehensive approach that safeguards against data loss and facilitates effective disaster recovery.

Enhanced data storage

The **SENYUM Supermicro HA Cluster** delivers superior data storage performance, reliability, and speed to meet modern demands. This innovative, high-density solution provides enhanced efficiency for diverse workloads - from I/O-intensive databases to high-throughput video recording. You can easily tailor the system to your exact needs using its powerful tuning tools, or simply choose from predefined profiles to streamline setup, save time, and immediately boost performance.

Optimal resource utilization

The **SENYUM Supermicro HA Cluster** system, powered by Open-E JovianDSS, is perfect for virtual environments, offering unparalleled efficiency and flexibility. Features like deduplication and compression minimize your storage footprint and maximize usable capacity. Plus, Thin Provisioning allocates space on demand, allowing you to expand physical storage seamlessly and without downtime. These core capabilities simplify overall storage management, extend disk retention periods, and dramatically reduce costs.



Hardware details

Default configuration	
Motherboard	Supermicro X13DDW-A
CPU	Intel(R) Xeon(R) Silver 4410T 10x 2.70GHz
Chassis	Zstor GS41102
RAM	4x Hynix HMCG88AGBRA190N DDR5 RDIMM ECC 5600MHz
Storage raw capacity	30.72TB
Data drives	4x Micron 7500 PRO 7.68TB U.3 NVMe Gen4. MTFDKCC7T6TGP-1BK1JABYY
Network interface	Broadcom BCM57416 NetXtreme-E Dual-Media 10G RDMA Broadcom BCM57508 NetXtreme-E 100Gb/s
Form factor	1U

About SENYUM Servicios Informáticos

SENYUM Servicios Informáticos is an IT services company based in Spain with over a decade of experience, specializing in managing information systems for over 700 satisfied clients. They offer a comprehensive suite of services, including IT maintenance, cybersecurity, cloud solutions (SENYUMCLOUD), networking, and IT consulting, complemented by expertise in ERP consulting (a3ERP) and a fully integrated Digital Marketing department for online promotion. Defined by core values like closeness, teamwork, quality, and innovation, Senyum is committed to providing professional, efficient, and personalized support that treats the client's business needs with loyalty and a positive attitude.

SENYUM Servicios Informáticos
Travessera de les Corts, 174
Barcelona, Catalonia 08028
Spain

@ info@senyum.es
📞 www.senyum.es
🌐 +34 933 22 19 00

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 41,000 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 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.