

Self-Healing, High-Density Data Storage

As hard drives expand with HAMR technology to 30TB, 50TB, and beyond, they create new challenges for storage systems due to longer rebuild times with increased capacity. To address these challenges, Seagate developed Exos[®] CORVAULT[™] to enable the recovery of a system to full health after a drive failure within minutes or hours, unlike traditional RAID which takes days. Seagate also continues developing new technologies like ADR that repair and put failed drives back into service without media replacement—reducing maintenance labor costs and providing environmental benefits.

The Seagate + QuantaStor Advantage

Seagate Exos[®] CORVAULT[™] systems provide a bedrock of reliable SAS attached block storage. Exos[®] CORVAULT[™] is a high-performing, efficient, durable multi-petabyte capacity block storage system that is self-healing and brings five-nines availability to scale out storage for data center deployments. CORVAULT breakthrough technologies provide hyperscale efficiencies, rapid deployment, and automatic hard drive renewal for less e-waste and operational costs.



Turning that SAS attached block storage into NAS, SAN, and S3-compatible object storage, Seagate combines the OSNexus[®] QuantaStor[™] platform with Seagate AP servers to deliver storage solutions with unique storage grid technology. Seagate and QuantaStor benefit highlights include:

- Unified Protocols Delivers file (NFS/SMB), block (iSCSI/NVMeoF), and object storage (S3) in a unified storage platform.
- Unified Architecture Scale-up (2 node) and scale-out (4+ nodes) storage architectures in one platform to cover a broad spectrum of workloads.
- CORVAULT[™] Integrated Directly add CORVAULT[™] systems into the QuantaStor storage grids for unified and distributed management of CORVAULT[™] systems used within QuantaStor storage clusters.

- Cloud Integrated Supports NAS Gateway and NAS-to-Object backup policies for auto-tiering to Seagate Lyve Cloud.
- Advanced Security Extensive security features include Active Directory integration, SSO, end-to-end encryption, patented RBAC system, MFA/2FA, and FIPS 140-2 certification.
- Reliable and Durable Seagate's ADAPT hardware erasure coding combines effectively with QuantaStor's software level RAID (scale-up) and erasure coding (scale-out) to maximize both benefits. This delivers ultra-high durability numbers ranging from 99.9999% to 99.999999999% durability (14 nines).



QuantaStor Integration and Auto-Configuration for Seagate Exos[®] CORVAULT[™]

With the release of QuantaStor 6.2, Seagate Exos[®] CORVAULT[™] systems can not only be monitored within a QuantaStor storage grid, but also completely configured with a single click. This removes the complexity of setting up new CORVAULT systems and simplifies correlating end-to-end from media to file system via the QuantaStor web management interface.

QuantaStor's one-click complete auto-configuration of CORVAULT systems simplifies expansion of scaleup and scale-out clusters and is performed via preset profiles which accelerates deployment times and provides consistency for Seagate customers.

QuantaStor and Storage Grid Technology

QuantaStor storage grids combine Seagate Exos AP storage server nodes across sites and locations enabling users to manage all storage clusters through a single distributed control plane. Within the grid, you can manage and secure multiple storage clusters, including scale-up and scale-out, hybrid, all-flash, and CORVAULT units. This helps eliminate storage silos, makes it easy to automate storage management, and simplifies implementation of security policies.

QuantaStor also contains advanced hardware integration with Seagate systems, including storage grid dashboards with hardware health information such as thermals, power supply status, and system load as well as hardware monitoring and management with controllers, enclosures, and correlation of pool device to enclosure view.

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