

Efficient and Flexible Data Backup Storage Solutions

Challenge Summary

Commvault supports a wide variety of workloads from virtual machines and physical machines to databases and network attached storage. It can also be run on a variety of operating systems, from Windows Server to distributions of Linux and versions of UNIX. The Commvault Backup software is deployed in a variety of configurations and capacities and is deployed in a range of scenarios from Remote Office / Branch Office to the enterprise —making efficient, high-performance, flexible storage systems critical.

Benefits Summary

- Certified for Commvault's Windows Server
- Certified for VMware ESXi
- Seagate ADAPT makes it easy to expand virtual volumes
- Data Protection with Seagate ADAPT or RAID
- Fast rebuild times with Seagate ADAPT
- Seagate ADAPT supports much larger volumes, not limited like RAID
- Seagate ADAPT protects against double disk failures and provides automatic spares
- Efficient, dense storage systems requiring lower power and less rack space
- Low-cost storage platform to build upon for Windows Server
- High performance, scalability, and built-in data protection

The Commvault Complete™ data protection platform and Commvault Backup and Recovery platform combined with Seagate's dense storage systems create an easy, efficient, flexible data backup solution.

Seagate® storage systems have been qualified by Commvault as primary data storage solutions for the Commvault Media Agent Server running on Microsoft Windows, as well as Linux distributions and UNIX versions, providing an efficient, low-cost platform that the Commvault Media Agent can build upon in the back end. These systems ensure high performance, scalability, and built-in protection.

The Need for Powerful Enterprise Storage

Commvault, one of the most pervasive backup solutions on the market today, features several components which make up the Commvault software suite—and many run on the Microsoft Windows Server operating system. One component in particular, the Commvault

Media Agent, is responsible for keeping all of Commvault's backup data. Therefore, it requires efficient, flexible, high-performance data storage to support a variety of scenarios, capacity demands, and performance needs.

The Seagate Solution

Seagate offers a variety of SAN (storage area network) and DAS (direct-attached storage) enterprise storage systems that are ideal solutions for the Commvault Media Agent's primary and archive storage, delivering high performance, scalability,

and builtin data protection. Available from selected distributors worldwide, they feature a variety of Seagate's enterprise nearline capacity-optimized hard drives and high-performance SSDs pre-integrated.



The Seagate Exos® X system series offers families of 2U and 5U form-factor chassis using one of Seagate's hardware RAID controllers, enabling Fibre Channel or iSCSI SAN solutions. These capacity-optimized disk and hybrid disk/flash SAN arrays enable up to 84 drives and 1.3PB of raw data storage with integrated Seagate hardware-based data protection using RAID and Seagate ADAPT erasure coding technology.



The Seagate Exos E system series offers families of 2U and 5U form-factor chassis with high-performance interfaces to enable DAS for JBOD (just a bunch of disks) server-attached solutions. These disk and hybrid disk/flash DAS JBODs in 2U and 5U form factors support up to 84 drives and 1.3PB of raw data storage with a 12Gb/s SAS interface for up to 28.8GB/s throughput in a dual controller configuration.



The Seagate Nytro X features SAN controllers (3005, 4005, and 5005) that use Seagate's proven RAID and erasure coding ASICs and Seagate ADAPT (Autonomic Distributed Allocation Protection Technology) next-gen erasure coding technology to enable rebuilds that are up to 95% faster than traditional solutions. As capacity grows, rebuild times can be cut from many hours or days to minutes using ADAPT. These controllers also provide thin provisioning, snapshots, asynchronous replication, and allow capacity expansion beyond the chassis by adding Seagate's optional expansion disk arrays (EBODs).



The Seagate Nytro® E 2U24 system is a high-performance SAS-based all-flash array that supports up to 24 SSDs and provides throughput of 28.8GB/s with dual 12Gb/s SAS controllers for maximum throughput and expansion to up to 16 enclosures and up to 384 drives.

All of Seagate's enterprise storage systems are built for demanding data centers and include active-active redundant components (hot-standby spare) with automatic failover and redundant hot-swap of key components. Enterprise system management features ensure they're simple to maintain while

Seagate's patented AcousticShield™ technology in certain models enables maximum performance from every drive. Additionally, they've been certified by VMware as primary data storage solutions for their popular ESXi server software, offering an efficient, low-cost storage platform to build upon.



Seagate Drive and System Benefits

All system components—enclosure, controller, firmware, and drives—are developed and optimized by Seagate engineers to work together seamlessly. This reduces support calls and eliminates

technical learning curves. Our modular architecture makes components interchangeable between systems, and upgrades are simple due to common FRUs, PCMs, controllers, and software.

- Cost-effective JBOD-SAS models
- High-performance, flexible connectivity options for any VMware environment with SAS, iSCSI, and Fibre Channel
- High-density solutions built for modern data center or server closet
- Unfettered data access with dual-redundant controllers capable of achieving up to 7GB/s sequential read, 5.5GB/s sequential write performance
- Seamless data center scalability with single enclosures that host up to 1.3PB of data
- Thin provisioning saves on storage costs by dedicating storage only when needed
- Virtual storage pools streamline management
- Improved performance for read-intensive workloads while minimizing SSD cost
- SED- and FIPS-capable devices extend data security with array-based data-at-rest encryption
- Auto tiering (with optional software bundle) accelerates performance with SSDs while providing the cost and capacity benefits of HDD
- Snapshots (with optional software bundle) reduces RPO and RTO with efficient, block-based hardware snapshots
- Asynchronous replication (with optional software bundle) replicates data between arrays for business continuity and disaster recovery
- Easy setup, maintenance, and expansion

Why Seagate ADAPT Makes a Difference with Commvault

Seagate ADAPT data protection, a form of distributed parity RAID, enables faster-than-ever drive rebuilding.

- Automatic rebalancing of stripe health (REFT) allows more drive failure protection
- Avoids idle spare drives (all drives provide performance and spare capacity is distributed evenly)
- Allows mixed drive sizes and easy capacity expansion
- Works with SSD and HDD groups



Supported Versions

Windows Server versions tested with Seagate systems: 2008, 2008 R2, 2012, 2012 R2, 2016, 2019

VMware ESXi versions tested and certified with Seagate systems : 7.0, 6.7 U3, 6.7 U2, 6.7 U1, 6.7, 6.5 U3, 6.5 U2, 6.5 U1, 6.5, 6.0 U3, 6.0 U2, 6.0 U1, 6.0, 5.5 U3, 5.5 U2, 5.5 U1, 5.5

For the most up-to-date list of supported Seagate models, visit the Microsoft Windows Server Catalog:

<https://www.windowsservercatalog.com/results.aspx?&text=seagate&bCatID=1511&cpID=24239>

In Conclusion

Seagate systems provide high-performance, scalable storage to Windows Servers as well as Linux and UNIX, ensuring the Commvault Media AGent server can do its job: storing important data

efficiently and securely. Seagate ADAPT provides high performing large volumes with fast rebuild times and protection against double disk failures.



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