



veeam

**Solution Brief**  
BACKUP, VEEAM READY

# High Performance and Scalable Veeam Ready iSCSI SAN Storage Solutions

## Challenge Summary

Veeam's Backup and Replication repository supports a wide variety of workloads from virtual and physical machines to databases and network-attached storage. Veeam's backup software is deployed in a variety of configurations and capacities ranging from remote office/branch office to enterprise scenarios—making efficient, high-performance, flexible storage systems critical.

## Benefits Summary

- Veeam-Ready validated primary backup repository
- Web-based storage management console makes it easy to provision and manage storage.
- Data protection with Seagate ADAPT or RAID
- Faster disk rebuild times than traditional RAID 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
- High performance, scalability, and built-in data protection

Veeam's popular Backup and Replication repository combined with Seagate's dense storage systems create efficient, flexible backup storage solutions.

Seagate® storage systems have been certified as primary data storage solutions for Windows Servers, providing an efficient, low-cost platform that the Veeam Backup Repository can build upon in the back end. These systems ensure high performance, scalability, and built-in protection.

## The Need for Powerful Enterprise Storage

Veeam, one of the most popular backup applications on the market today, features several components that make up the Veeam Backup and Replication solution and Availability Suite—and many run on the Microsoft Windows Server operating system. One component, the Veeam

Backup Repository, is responsible for keeping all of Veeam'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 storage area network (SAN) and direct-attached storage (DAS) enterprise storage systems that are ideal solutions for Veeam Backup Repository's primary and archive storage, delivering high

performance, scalability, and built-in data protection. Available from selected distributors worldwide, Seagate systems feature a variety of pre-integrated enterprise nearline capacity-optimized hard drives and high-performance SSDs.





### Seagate Exos® X

Seagate Exos X advanced storage arrays are petabyte-scalable, rack-mounted block storage systems with advanced data protection options and an abundance of storage features powered by VelosCT™ ASIC-driven controllers. A value-rich solution for applications that require massive capacity, high performance, low latency, and always-on resiliency—perfect mass storage for conventional data centers and cloud infrastructure applications.

Available in 2U, 4U, and 5U enclosures that are expandable for up to 336 drives. Seagate's Exos X storage controllers provide flexible connectivity options with iSCSI, Fibre Channel or SAS options. These capacity-optimized disk and hybrid disk/flash arrays combine HDD and SSD storage with integrated data protection options using Seagate's Advanced Distributed Autonomic Protection Technology (ADAPT) for erasure coding, Autonomous Drive Regeneration (ADR) to automatically renew failed drives in place, or traditional RAID options.



### Seagate Exos E

Seagate Exos E high-performance SAS-based expansion supports both SSDs and HDDs. The Exos E expansion enclosures provide throughput of 28.8GB/s with dual 12Gb/s SAS controllers for maximum throughput.

Exos E disk and hybrid JBOD enclosures come in 2U and 5U form factors supporting 12, 24, and 84 drives in a single enclosure with a 12Gb/s SAS interface for up to 28.8GB/s throughput in a dual controller configuration. Expand Exos X 2U options with up to nine Exos E 2U enclosures for up to 240 drives. Exos X 5U systems can be expanded to 336 drives with three Exos E 5U enclosures.



### Seagate Exos CORVAULT™

Seagate Exos CORVAULT includes the same data protection options as the Exos X systems (ADAPT, ADR, and RAID) in a SAS-attached, 4U 106 disk system. Exos® CORVAULT™ is a high performance, self-healing block storage system that delivers multi-petabyte capacity, five-nines reliability, and hyperscale efficiencies for data center and macro edge environments. Exos CORVAULT includes Seagate's Advanced Distributed Autonomic Protection Technology (ADAPT) for erasure coding, and Autonomous Drive Regeneration (ADR) to automatically renew failed drives in place.

### Certified For VMware data centers

Seagate storage is certified by VMware as primary data storage solutions for their popular ESXi Virtual Data center server software, offering an efficient, low-cost storage platform to build upon. All of Seagate's enterprise storage systems are built for demanding workflow. Systems include efficient deployment and administration,

a comprehensive software stack, 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.



## Seagate Storage Solution 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.

- High-performance, flexible connectivity options for any VMware environment
- High-density solutions built for the modern data center or server closet
- Unfettered data access with dual-redundant controllers
- 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 HDDs
- Snapshots (with optional software bundle) reduce 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 and ADR Makes a Difference with Veeam

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

- Automatic rebalancing of stripe health 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
- Supports from 12 to 128 drives per disk group
- Works with SSD and HDD groups
- Unique Seagate ADR reduces human intervention and e-waste by automatically renewing hard drives “in situ” and on the fly



## Seagate Veeam Ready Systems

Seagate systems are Veeam-Ready and have been certified with both Windows Server and VMware ESXi, which are very often used together with Veeam. Seagate storage solutions are compatible with Veeam Backup & Replication™ features.

Exos X and Exos CORVAULT are listed “Veeam Ready – Repository” supporting all Veeam backup and restore features as a (Backup Target – Disk) with Veeam Backup & Replication 11

## In Conclusion

Seagate systems provide high-performance, scalable storage to Windows Servers, ensuring the Veeam Backup Repository can do its job—storing important data efficiently and securely. Seagate ADAPT/

ADR provides high-performing large volumes with fast rebuild times and self-healing, delivering superior data availability and protection.



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