Reduce Storage TCO with Seagate and StorONE

Next-generation hybrid storage solution from Seagate and StorONE, designed for mainstream data centers, delivers high performance and capacity—enabling IT to consolidate all use cases while providing uncompromising data protection.

Challenge Summary

Mainstream data centers are forced to buy multiple storage solutions for each use case, which complicates storage management or forces the purchase of an expensive all-flash array, thereby significantly increasing storage costs.

Benefits Summary

- Lowest TCO
- Maximum SSD performance
- Record-setting RAID rebuild performance
- Unlimited snapshots/ cascading replication
- Balanced cost, performance and capacity with hybrid SSD/HDD architecture

Seagate application platforms including the Exos AP 5U84 and Exos AP 2U12 are hybrid storage platforms that leverage both flash and HDD to meet performance demands while reducing storage costs. The StorONE engine extracts full performance from the least amount of SSD necessary while maximizing the capacity advantages of HDD with fast rebuilds and the ability to use 90%+ of available HDD capacity.

Seagate's Exos AP 5U84 is a dual-controller SAS JBOD with onboard compute in a 5U chassis while the Exos AP 2U12 has the same features in a 2U chassis. Each AP controller includes an AMD EPYC™ CPU - the ideal server-class computing power for StorONE's highly efficient software-defined storage technology. Partners can configure the systems as hybrid arrays but with large flash tiers. When configuring the system with the StorONE S1:Enterprise Storage Platform (ESP), the solutions deliver high-performance I/O at sub-millisecond latencies. Partners can use the solution to meet customer needs for block, file, and object workloads.

The Challenge

Mainstream data centers require an affordable storage solution that can support all their various use cases in a single, simple storage platform. The StorONE S1 and Seagate Exos AP 5U84 or Exos AP 2U12 combined solution delivers the scalability (high performance and high capacity) that mainstream data centers need.

With a single 5U solution, organizations can support high-performance workloads with the Exos AP 5U84's multi-core CPU performance. At the same time, they can use the platform for capacity-centric use cases like video surveillance, user home directories, archive and backup.

The StorONE Approach

StorONE Thinks Results. The StorONE S1 ESP simplifies the entire storage infrastructure and supports all protocols and uses while delivering uncompromising data protection and eliminating data migration. The result is a dramatically lower storage total cost of ownership (TCO).

The Seagate Hardware Platform

Seagate Exos AP 5U84 is an enterprise storage solution offering high density, high capacity, and high performance in an all-in-one, space-saving 5U package. Exos AP 5U84 provides JBOD with server controllers for built-in high availability and expandability over 1PB. Future-proofed, Exos AP 5U84 supports a variety of deployments. For smaller capacity deployments, the Seagate Exos AP 2U12 provides the same capabilities in a 106TB hybrid configuration. Modular, interchangeable components mean easy replacement.

StorONE and Seagate Solution

Mainstream data centers require affordable high performance and high capacity. Many solutions have left these organizations behind, even though they represent most data centers in the world. These solutions have also shifted perceptions on hybrid storage solutions in general and HDD-based storage in particular. Today, Seagate and StorONE are teaming up to deliver a series of next-generation hybrid storage systems that deliver high performance and high capacity at affordable prices.

"Seagate Exos AP 5U84, when combined with StorONE, is an ideal solution for data centers of all sizes trying to consolidate workloads and reduce storage footprint," said Gal Naor, CEO, and co-founder of StorONE. "The application platform solution allows us to showcase our investments in the efficient utilization of storage hardware and our next-generation hybrid technology."

Hybrid storage offers the performance that application owners require and the capacity that IT professionals need at the price point organizations demand. StorONE's S1 ESP's efficient storage engine enables Seagate Exos AP 5U84 deployment as a mainstream enterprise solution. When combined, the solution delivers high-performance

I/O and more than a petabyte of capacity. StorONE leverages the dual-controller architecture to provide active-active performance and extreme high availability. Smaller data centers can enjoy the same hardware availability and enterprise feature set with Seagate Exos AP 2U12, which is available in a 106TB hybrid configuration.

StorONE's vRAID technology allows organizations to enjoy HDD technology's cost savings while benefiting from sub-two-hour HDD RAID rebuild times. The company's next-generation hybrid technology enables the organization to use flash and HDDs together transparently, saving costs without compromising performance or increasing complexity.

StorONE's IO Orchestration Engine enables IT to use up to 90% of available capacity without performance impact and to enjoy an uncompromising set of data protection features—including cacheless high performance, integrated high availability, unlimited snapshots, and cascading.

StorONE S1 solution using the Seagate Exos AP 5U84 and the Exos AP 2U12 are now available on StorONE's TRUprice site, enabling the customer to configure and price a solution to meet their needs in four clicks. StorONE is also transparent about performance. For more information on the StorONE S1 solution using the Seagate Exos AP 5U84 and the Exos AP 2U12 see **https://www.storone.com/seagate5u84/** and **https://www.storone.com/seagate-2u12.**

The Total Solution

1. **Workload Consolidation:** Put disparate workloads under one central control interface with a full enterprise feature set and consolidated storage going forward.

2. **Cost Reduction:** Get high performance and high capacity at affordable prices.

3. **Data Protection:** High-speed data protection using StorONE's new vRAID feature can rebuild large HDD volumes in two hours or less and large flash volumes in under 5 minutes.

4. **High Availability:** Dual controllers ensure the solution is always available with automatic failover in the event of a node failure.

5. **Multi-Protocol Support:** Solution includes full support for important protocols such as NAS, BLOCK, and S3.

6. **High Density:** 5U unit reduces costs of space, power, and cooling requirements.

7. **Multiple Use Cases:** Support backup, archive, virtualization, video surveillance, M&E, and file.

8. **Coverage:** Includes three-year Seagate hardware limited warranty and StorONE software support.

Features & Benefits

- Highly dense 5U or 2U unit supports space, power, and cooling savings

- Dual controllers assure built-in high availability

- Complete enterprise storage feature set

- Multi-protocol (Block/NAS/Object)

- Three year Seagate hardware limited warranty and StorONE software support included

Solution Components

Seagate Hardware
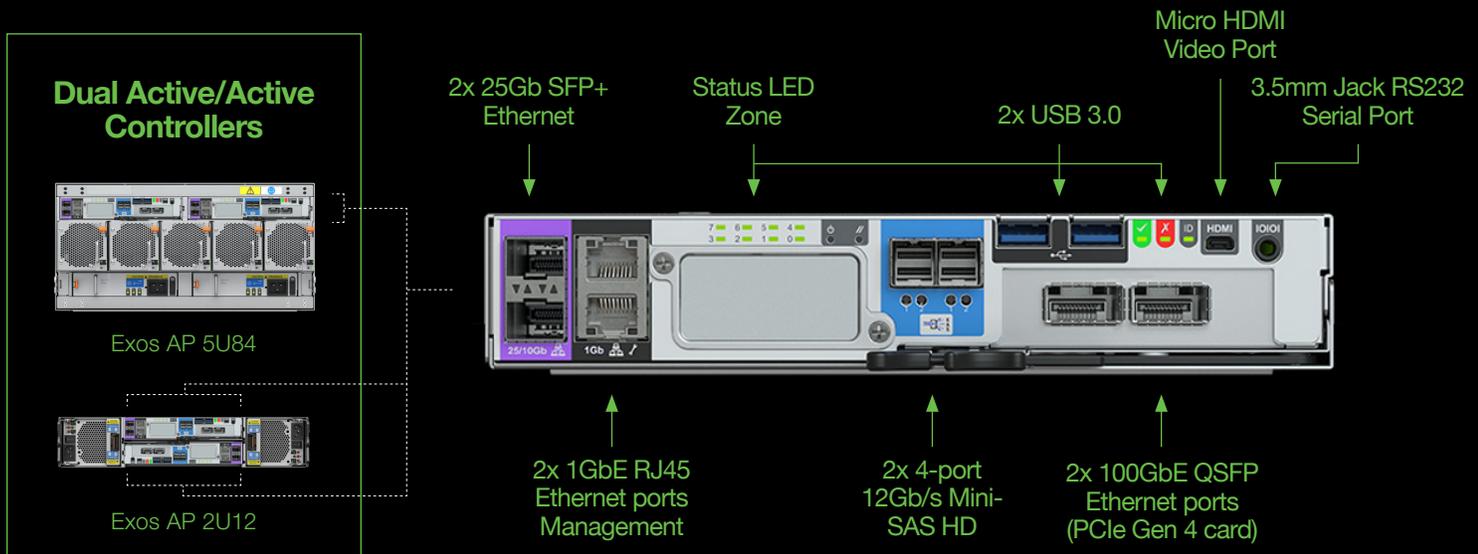Exos AP 5U84

Seagate Hardware
Exos AP 2U12

StorONE Software
S1:Enterprise Storage
Platform

Dual Active/Active Controllers - Hot Swap - Complete Field Replaceable Unit

1 AMD EPYC Rome 2GHz 16 Core CPU, 256GB Memory, 256GB M.2, 2x25G SFP+, 2x12Gb SAS, 2x1GbE RJ45 & Dual Pt 100GbE QSFP PCIe Gen 4 Card.

Dual Active/Active Controllers

Exos AP 5U84

Exos AP 2U12

2x 25Gb SFP+ Ethernet

Status LED Zone

2x USB 3.0

Micro HDMI Video Port

3.5mm Jack RS232 Serial Port

2x 1GbE RJ45 Ethernet ports Management

2x 4-port 12Gb/s Mini-SAS HD

2x 100GbE QSFP Ethernet ports (PCIe Gen 4 card)

Conclusion

Combined with StorONE's S1 ESP software, Seagate Exos AP 5U84 and Exos AP 2U12 provide customers with a solution for data centers of all sizes—consolidating workloads and reducing storage footprint. All of this was made possible by the efficient utilization of storage hardware and next-generation StorONE software-defined storage technology.

Ready to Learn More?

Talk to an expert **www.seagate.com/promos/talk-to-an-expert/**

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