



Ultrastar® Data60 and Data102 Storage Powered by StorONE's Flash-Accelerated Software Platform



Highlights

- StorONE Software with Western Digital JBODs together deliver low-cost, high-density, sustainable storage.
- Eliminates the compromise of quality and performance versus cost-effectiveness by offering high-quality enterprise storage at the minimum possible cost.
- Hardware features enhance drive resiliency that enhances the life of data and reduces the frequency of returned drives.
- Data protection features such as Erasure Coding (vRAID), Snapshots, DR and Rapid Recovery.

Results Matter

In today's data-driven world, businesses are continuously seeking ways to improve operational efficiency, cut costs, and safeguard their most critical asset—data. As the volume and complexity of data grow, choosing the right storage solution has never been more important. StorONE and Western Digital understand these challenges and have validated their products to deliver a solutions that drives tangible business outcomes.

Legacy hybrid storage software moves data from flash to hard disk drives only after the flash tier is nearly full. The problem is when the IO burst occurs, which forces the movement of data from the flash tier to the hard disk tier; the new IO must wait for the flash tier to clear space by moving data to the much slower hard disk tier. The result is noticeably inconsistent.

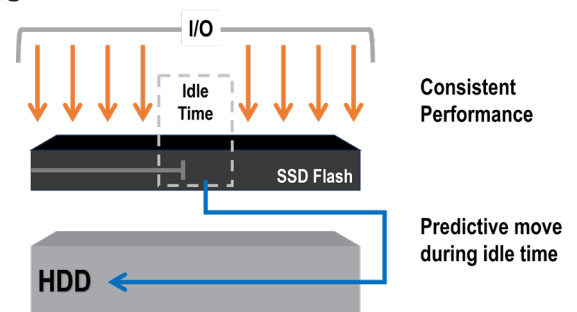
Solution

StorONE is the first company in thirty years to completely rewrite the storage IO stack, collapsing it into a single layered Storage IO Engine with a common metadata table across all services, enabling the application of features without adding latency.

Western Digital Ultrastar Data60 and Data102 offers among the highest density HDD enclosures with key hardware resiliency features such as IsoVibe™ and ArcticFlow™, and innovative usability features such as rack-mounted lid and hot swappable, toolless customer replaceable units (CRUs).

StorONE Key Features

The StorONE Engine features a new, advanced auto-tiering algorithm that moves data to the hard disk tier when the solution is not busy with inbound writes, ensuring there is always available capacity on the flash tier for the next IO burst.



StorONE's innovations include a complete rewrite of the erasure coding algorithm, delivering high-performance during a "normal state" and fast recovery from a "failed state." The result is StorONE's vRAID which provides data resiliency and performance suitable for even the most performance-demanding production workloads, no matter the drive redundancy setting.



This architecture enables the customer to add and replace or components without interfering with the storage services. Add (hot-add) drives or enclosures to grow capacity. Connect up to 5 enclosures (any mix of Data60 and Data102 and up to 13.25 PB¹ total based on current drive capacities).

In addition to the many advantages of StorONE's S1:Snap advanced snapshot technology, snapshots can also be automatically tiered to less expensive media, reducing storage costs.

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Ultrastar Data60 and Data102 Platform Features

Ultrastar Data60

- Up to 60 Ultrastar HDDs (SAS or SATA)
- Up to 1.56 PB¹ of raw CMR HDD storage
- 4U form factor



Ultrastar Data102

- Up to 102 Ultrastar HDDs (SAS or SATA)
- Up to 2.65 PB¹ of raw CMR HDD storage
- 4U form factor



Innovations for Performance and Reliability

IsoVibe: Patented technology improves isolation of vibration propagation both to and from each individual drive to help maximize performance even in heavy workloads.

ArcticFlow: Improves cooling via discrete airflow channels that allow cool air to reach more components within the system, improving cooling effectiveness that can improve drive reliability.

Flexible

- Choose dual-port SAS for high availability or single-port SATA for low cost.
- Up to 12 x 12Gb/s SAS² host connections.

Designed for Serviceability

- Enterprise-grade redundant and hot swappable PSUs, IO Modules, and fans.
- Rack-mounted top cover for quick and easy service.

¹One terabyte (TB) is equal to one trillion bytes and one petabyte (PB) is equal to 1,000 TB. Actual user capacity may be less due to operating environment.

²This solution was tested with 12Gb/s SAS host connections.

