ABILITY 4U 102-BAY EBOD

Designed for High Density and Flexibility

The Ability 4U 102-Bay EBOD is a key element of next-generation disaggregated storage and software-defined storage (SDS) systems, delivering high density and the flexibility to balance performance with cost. The Ability 4U 102-Bay EBOD provides up to 1.2PB1 of raw storage in a compact and efficient form factor. The drives ensure cool running, quiet operation and high reliability. A high performance data tier can be set up for demanding applications by using SSDs in up to 24 of the drive slots.

Building on 25+ years of Storage Design Experience

Conventional dense disk shelves frequently suffer from performance degradation due to induced vibration from adjacent drives. Traditional platforms also have cooling challenges as the cooling air passes over successive rows of drives, losing effectiveness as it gets heated up along the airflow path. Developing storage devices and platforms side-by-side, we address these challenges through vertical innovation, a set of technologies developed based on a holistic view of devices, platform, and their interactions. The first patented technology reduces vibration-induced performance degradation, while the second patented technology overcomes the cooling issues by introducing cool air into the middle of the platform. Both these technologies contribute to long-term reliability.

Designed for the Enterprise and the Cloud

This new platform addresses the demanding storage needs of large enterprise customers, storage OEMs, cloud service providers and resellers/integrators that require dense, shared HDD or hybrid storage. The Ability 4U 102-Bay EBOD provides the flexibility to specify the HDD and SSD combinations to balance capacity, performance and cost.

Patented Vibration Isolation Technology

Precise cuts in the baseboard provide a suspension for the drives in the chassis, isolating them from transmitted vibration. The result is that consistent performance is maintained, even when all the drives are working hard.

Patented Thermal Zone Cooling Technology

By introducing cool air into the center of the chassis, drives operate at lower and more consistent temperatures than conventional systems. This results in lower fan speeds, reduced vibration, lower power consumption, quieter operation and ultimately higher reliability.

Features

- Up to 102 12 HDDs (SAS or SATA).
- Hybrid support with up to 24 SSDs (SAS or SATA) for a data acceleration tier.
- Up to 1.2PB of raw storage in 4U.
- Choose dual-port SAS for high availability or single-port SATA for low cost.
- 4 rack units, 1047mm depth.

- Up to 12 x 12Gb/s SAS3 host connections.
- Patented technology ensures maximum performance even in heavy workloads.
- Enterprise-grade redundant and hot-swappable PSUs, IO Modules and fans.
- Improved cooling from innovative, patented technology.
- Rack-mounted top cover for quick and easy service.

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Max. Drives	• 102 x 3.5" drive bays • Up to 24 can be SAS or SATA SSD
Drive Interface	• 12Gb/s SAS • 6Gb/s SATA
Available Drive Capacities	• HDD up to 12TB • SSD up to 6.4TB
Host Interface	• Dual redundant I/O Modules (IOM), • 6 Mini-SAS HD ports per IOM
Weight	• 4U102 w/o drives: 31.8kg (70lbs) • 4U102 w/ 102 HDDs: 118.8kg (262lbs)
LED Indicators	• Front/Rear: Power, ID, Fault • Drive: Activity, Fault
Physical Dimensions	• Height: 175mm (6.89") • Width: 447mm (17.61") • Depth: 1047mm (41.25") • Depth in Rack: Max of 1197mm (47.13") w/ dual CMA—includes 24 SAS cables
Management	• SCSI Enclosure Services • Redfish (out of band, via RJ45)
Power	• Dual 1600W, 80+ Platinum • 200-240V AC input, auto ranging, 50-60Hz
Cooling	• 4 main enclosure fans, front-to-rear system cooling with zero-loss backflow prevention • 2 IO module fans • Dual PSUs with built-in fans • Fan speed tuning via system management
Environmental	• Operating Temperature: 5 to 40°C • Non-op Temperature: -40 to 60°C • Humidity: 5 to 85% relative humidity • Operating Altitude: 40°C @ 3,000ft • Sound Power: < 7.2Bels @ 23±2°C
Serviceability	• Cable-free hot-swappable IOM, power supply, fans and drives

About

RAID Inc. was founded in 1994 to deliver end-to-end performance-driven technical computing and storage solutions. The company has earned industry praise for providing platform agnostic technical guidance in high performance computing (HPC), big data, cloud and software-defined data centers—in the most efficient, reliable and cost effective manner. The world's leading research facilities, government, life science, financial, healthcare, energy, and cloud service providers can leverage the our team of engineers' extensive academic, research lab and commercial expertise that makes RAID Inc. a trusted industry leader. For more information, visit our website www.raidinc.com or call 1.800.330.7335.