Unleashing Performance & Scalability

In leveraging free open source software with Lustre 2.12 and ZFS on Linux 0.7, RAID Inc unleashes the performance and scalability of the Lustre parallel file system for HPC workloads with higher density and lower TCO. Enterprise level support available from RAID Inc. and backed by core Lustre developers at Whamcloud®.

Building Block Architecture

Lustre building blocks are built from RAID Inc's Ability® line of enterprise class JBODs (EBODs) and commodity server hardware. All building blocks are configured for high-availability with no single point of failure. Building block architecture allows seamless scale-out of capacity and performance for new and existing systems.

Metadata

MDS building blocks leverage RAID Inc's Ability 24-Bay EBOD. SFF 2.5" drive bays allow for SSDs or high-RPM spinning disks. Up to 100 TB of usable metadata capacity with enclosure protection in a single building block.
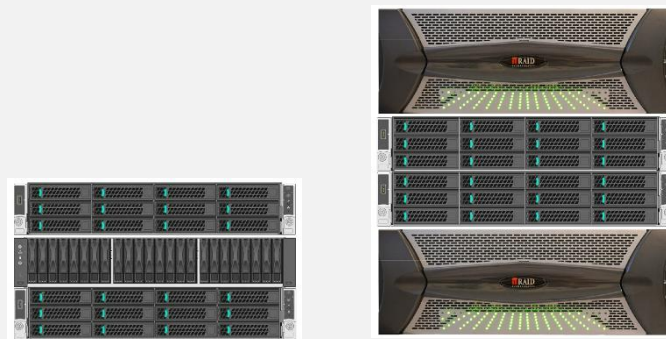
Object

OSS building blocks leveraging RAID Inc's Ability Series of EBODs. LFF 3.5" drive bays allow high capacity drives for up to 2.8 PB in a single building block. With up to 10 GB/s throughput per building block, scale-out to meet your performance and capacity needs is easier than ever.

Support

Through our experience, we have identified and developed best practices for delivering levels of technical support that fit our customers' ever-changing needs for enterprises of all sizes. RAID Inc. delivers high-quality, customized technical support for all stages of the customer lifecycle.

Scalable Lustre ZFS Building Blocks with RAID Inc. Ability EBODs

- Highly-available clusters with no single point of failure
- Scale for capacity & performance of both data & metadata
- 24-bay enclosure SSD or HDD for metadata
- 84-bay enclosure for capacity object storage
- Infiniband, Omni-Path and Ethernet Lustre networking

Lustre ZFS Solution Architecture

Features & Benefits

- Support for ZFS on Linux 0.7. Large dnodes for greatly increased metadata performance. Integrated and simplified JBOD management. Multiple import protection for HA clusters. Improved disk I/O monitoring.
- Snapshots. Fast, mountable, read-only snapshot of a Lustre filesystem in a separate namespace. Only available if all storage targets are using ZFS.
- Multi-rail LNET. Support for load balancing network traffic across multiple physical interfaces. Decreased configuration complexity for servers and clients that have large bandwidth requirements.
- Lustre 2.12 support for Data on MDT. New feature. Greatly increase small file performance in Lustre by allocating them directly on SSD-backed MDTs.

RAID Inc. was founded in 1994 to deliver high-performance 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 leverage 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.

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