

## Xanadu X-AI Storage Platform

Providing unmatched storage performance and flexibility for Artificial Intelligence and Deep Learning

RAID Inc.'s X-AI Accelerated, Any-Scale (AI) solutions break new ground for Artificial Intelligence (AI) and Deep Learning (DL), providing unmatched flexibility for your organization's AI needs. Engineered from the ground-up for the AI-enabled data center, X-AI solutions are optimized for ingest, training, data transformations, replication, metadata and small data transfers. RAID Inc. offers flexibility in platform choice with the all-flash NVMe X2-AI/X4-AI or the X500-AI, a hybrid flash and hard drive storage platform which leverages parallel access to flash and deeply expandable HDD storage. The X-AI storage platform supports a scale-out model with solutions starting at a few TBs yet scalable to 10s of PBs.



**Xanadu X500-AI**

### Fully Integrated, GPU-Optimized Data Platforms

Easy to deploy, RAID's X-AI solutions are turn-key, pre-configured, and provide the most capable scale-out platform for capacity and performance.

### Full GPU Saturation

Fully optimized for all types of I/O patterns and data layouts, the RAID Inc. X-AI storage solutions deliver data to applications, ensuring full GPU resource utilization even with distributed applications running on multiple computing servers. Performance testing on the RAID X-AI architecture has been conducted with all widely-used DL frameworks (TensorFlow, Horovod, Torch, PyTorch, NVIDIA® TensorRT™, Caffe, Caffe2, CNTK, MXNET and Theano). Using the X-AI intelligent client, containerized applications can engage the full capabilities of the data infrastructure, achieves full GPU saturation consistently for DL workloads.

### Capacity-Efficient AI Storage

RAID's X-AI storage solutions provide flexible capacity expansion options, with up to 360TB of scale-out NVMe I400 appliances, or 5.4PB of hybrid storage in the X500-AI.

### Highest Resiliency, Reliability, and Security at Scale

Engineered to provide the highest data availability and maximum system uptime, all X-AI hardware components are integrated as a fully redundant system.

### Unified Namespace

RAID's X-AI solutions allow for consolidation of hot training data and warm expanding data libraries into a single platform, providing easy data access from a unified interface.

### Multi-Tenancy and Quota Support

RAID's X-AI solutions can be secured on a per-tenant basis that ensure users and applications can only access the data that they're entitled to. Advanced quota controls provide easy management of file system consumption at the user, group, and project level.

## Use Cases

- Driverless Cars – Massive Scale Out. Real Time Ingest and Process
- Data Security Fraud Detection – Fast Flash. High IO/Client Security
- Augmented Reality – Globally Distributed. Optimized IO
- Healthcare Diagnostics – Sensor Data. Live Diagnostics. Security
- Personalized Marketing – Distributed Analytics. Resilient.
- Natural Language – Massive Ingest. Flash/Disk. Large Data Sets.

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X2-AI



X4-AI



X5-AI

### System Features

- High Performance GPU-optimized parallel file system
- Sequential read performance up to 20GB/s
- Sequential write performance up to 16GB/s
- Up to 1M IOPs per appliance

### Controller Host Ports per Appliance

- 4 x EDR InfiniBand or 100 GbE

### Drive Support

- 24 x 2.5" dual port NVMe

- High performance GPU-optimized parallel file system
- Sequential read performance up to 40GB/s
- Sequential write performance up to 32GB/s
- Up to 3M IOPs per appliance

- 8 x EDR InfiniBand or 100 GbE

- 24 x 2.5" dual port NVMe

- High performance GPU-optimized parallel file system
- Sequential read performance up to 20GB/s
- Sequential write performance up to 16GB/s
- Up to 700,000 IOPs per appliance

- 4 x EDR InfiniBand or 100 GbE

- 90 x 3.5" drive slots support Enterprise-grade SSDs and HDDs
- Up to 4 additional 90-bay expansion drive enclosures

### Standard Software Features

High performance parallel file system, LUN mapping and masking, intelligent write striping, read QoS, port zoning detection, data integrity check/correction, interface options (SSH to CLI, web-based GUI, Python API), state change messages (via email, SNMP trap and syslog).

### Safety

Agency Certifications UI, cUI, CE, FC

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*Product specifications subject to change.*

## 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 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](http://www.raidinc.com) or call 1.800.330.7335.