

About Xinnor

Founded in May 2022 in Haifa, Israel, Xinnor was established by the team of storage veterans with over 15 years of experience in data protection (RAID) and software-defined storage.

Our team of around 40 professionals includes more than 30 accomplished mathematicians and industry experts from global storage OEMs, supported by over 25 selling partners worldwide.

Our innovations have been protected by US patents since 2016, with our latest patent filed in 2024.

Today, our products are in commercial use by leading universities, research institutions, and several enterprises and OEMs across finance, cybersecurity, media & entertainment, and other industries.



Most Innovative Customer Implementation 2023



CRN Stellar Storage Startup 2024



Firestarter Trailblazers Winner 2024

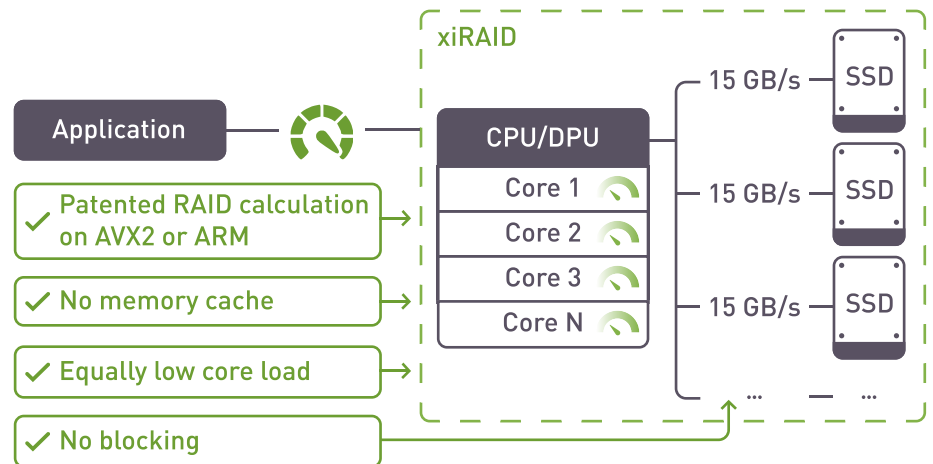


#2 Lustre Solution in IO500 10-Node Research

Meet xiRAID, the fastest RAID engine for NVMe

High-performance software RAID engine for modern storage infrastructures, available in kernel and user space versions.

- Seamless integration with local or parallel file systems and block storage appliances;
- Ready for PCIe Gen6 and next-gen technologies;
- User space version optimized for NVMeoF, virtual environments, and offloaded data protection on DPU/ARM platforms.



Competitive advantages



Superior performance in normal operation

Demonstrated world record performance



High performance in degraded mode

10x performance boost vs competitive options



No PCIe taxation

Minimal CPU load for checksum calculation, no need for dedicated hardware



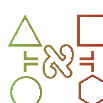
Even loads on CPU cores

Efficient CPU utilization with balanced core workload.



Features rich

RAID Migration, Restriping, Hot Spare, Notification, Merge, Write-hole protection, Variable strip-size, CPU affinity, High Availability



Flexibility

Any drive, any capacity, RAID level 0, 1, 5, 6, 7, 10, 50, 60, 70 and N+M supported, up to 64 drives in a single RAID, unlimited number of RAIDs



"Using the power of the NVIDIA BlueField-3 DPU, xiRAID can set a new standard in storage solutions, helping to ensure cost-effective, high-performance outcomes for businesses across the globe."

Rob Davis
VP of Storage Technology, NVIDIA

Case studies



Enhanced performance for Friedrich-Alexander University's GPU cluster

File system: **Lustre**

Benefits:

- Lustre storage cluster made of 7 servers with 24 NVMe each, protected by xiRAID
- Optimized solution for handling millions of small files for ML/AI workloads
- Serving over 600 NVIDIA A40 and A100 GPUs
- Enhanced metadata operations for HPC applications



Optimized ML storage solution at Aalen University

File system: **IBM Storage Scale**

Benefits:

- High-performance storage with exceptional throughput (42.8 GB/s write, 80.2 GB/s read) from a single server with 10 NVMe drives
- Cost-effectiveness by using software-based RAID with flexible hardware choices
- Data availability and disaster recovery protection, provided by Spectrum Scale AFM feature



Advanced AI storage cluster at a leading university in Singapore

File system: **BeeGFS**

Benefits:

- High-performance and cost optimized storage cluster, combining xiRAID and BeeGFS on multiple NVMe servers
- Scalability with internal read performance exceeding 215 GB/s
- Efficient support for GPU-accelerated applications across multiple compute nodes



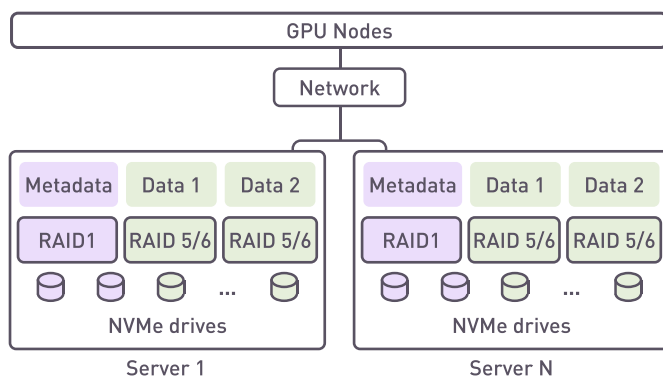
Storage solution for a German university's NVIDIA DGX cluster

File system: **NFS**

Benefits:

- Saturating 400Gbs Infiniband bandwidth with just one server with NVMe drives, protected by xiRAID
- Keeping 2x DGX systems busy with data at any time and maximizing checkpointing execution
- Maintaining storage performance even during drive failures, eliminating need for overprovisioning

Reference architecture



"The dramatic increase in throughput and storage capacity allows researchers to push the boundaries of what is possible in fields like molecular dynamics and gesture recognition."

Prof. Gerhard Wellein
Head of NHR@FAU



"We were pleasantly surprised by how this cost-optimized solution not only met but surpassed our performance requirements."

Patrick Krawczyk
Project Manager,
Aalen University



"The integration of xiRAID with BeeGFS has ensured a reliable, high-performing storage backbone that matches the university's ambitions."

Rakesh Sabharwal
CEO, On Demand
System Pte Ltd.

World-record performance

In benchmarks validated by KIOXIA, xiRAID in a 2x RAID5 (11+1) configuration on a 24-drive system shows world-record performance and delivers results nearly matching its theoretical limit.



	Theoretical limit	xiRAID performance	Efficiency
4K Random Read	65 M IOPS	65 M IOPS	100%
4K Random Write	8 M IOPS	8 M IOPS	100%
Sequential Read	336 GB/s	310.3 GB/s	92%
Sequential Write	149 GB/s	144.5 GB/s	97%

Thank you for your interest in Xinnor and xiRAID. On our website, you'll find a range of practical resources: case studies, solution briefs, white papers with our partners, and more, that provide in-depth information on our storage solutions.

If you'd like to discuss your storage requirements or need further information, please reach out to us directly.

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