

# The New Performance Standard in Enterprise Data Protection



Designed for a modern software composable environment, GRAID Technology brings you the world's first future-ready RAID card that not only protects your direct-attached flash storage but also those connected via NVMe over Fabrics —all at world record performance speeds and extremely low TCO.

## THE CHALLENGE

### RAID Bottleneck

As NVMe SSD quickly becomes the new standard for storage infrastructure, a challenge arises for data center storage infrastructure design: the industry requires a future-ready solution to deliver NVMe SSD performance without sacrificing data security or business continuity. Simply put: flash storage performance is evolving too fast to be fully utilized by existing storage architecture.

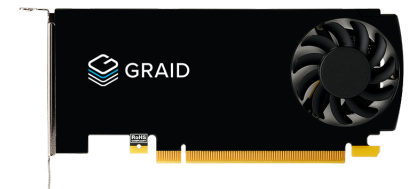
Implementing a basic software RAID via the CPU can only deliver 10-20% SSD performance on average, while unfortunately consuming almost all of the CPU computing power. While utilizing proprietary hardware might achieve improved performance, the architecture still can't maximize the potential of flash storage.

## THE SOLUTION

### GRAID SupremeRAID™

In today's data center world, speed and throughput are everything. GRAID recognized the limitations and bottlenecks that traditional RAIDs caused and decided a new solution was needed to move RAID technology into the future.

GRAID is proud to introduce the world's first NVMe and NVMeoF RAID card to unlock the full potential of your SSD performance. Our innovative solution delivers world-record performance while increasing scalability, improving flexibility, and lowering the total cost of ownership. With proven performance tests and partnerships with global industry leaders, GRAID SupremeRAID™ removes the traditional RAID bottleneck to deliver maximum SSD performance, comprehensive data protection, and unmatched flexibility at the lowest TCO available.



#### Flexible & Future Ready

Unmatched flexibility with features like new O/S support, compression, encryption, thin provisioning, or boot drive protection easily added with software releases



#### World Record Performance

Full NVMe performance with a single card: 6M IOPS and 30GB/s throughput (PCIe Gen3), 100GB/s throughput (PCIe Gen4)



#### Highly Scalable

Easily manage 24+ direct attached NVMe SSDs; extend data protection without sacrificing performance with Software Composable Infrastructure



#### Plug & Play

Effortless installation, no cabling or motherboard re-layout required; direct connect to SSD without PCIe switches



#### Free Up CPU Resources

Offload your entire RAID computation to the GRAID card to free-up CPU computing resources for 5G, AI and AIoT applications



#### Easy to Use

GRAID doesn't rely on memory caching technology, eliminating the need for battery backup modules

**6M**  
IOPS

**100GB**  
Throughput

UP TO **100%**  
SSD Performance

**80%**  
Cost Savings

**3X**  
Faster

	GRAID SupremeRAID™	High-end Hardware RAID
4k Random Read	6 M IOPS	3.5 M IOPS
4k Random Write	700 k IOPS	180 k IOPS
512k Sequential Read	30 GB/s (Gen3), 100 GB/s (Gen4)	13.5 GB/s
512k Sequential Write	10 GB/s	4 GB/s
4k Random Read In Rebuild	1.8 M IOPS	36 k IOPS

## Unbeatable Performance

GRAID's cutting edge technology eliminates the traditional RAID bottleneck to unlock the full potential of your SSD performance. A single SupremeRAID™ card is capable of delivering **6 million IOPS and 100GB/s of throughput**.

GIGABYTE

KIOXIA

AMD

SEAGATE

NVIDIA

“Each generational leap brings more demanding workloads that require fast throughput from storage solutions. GIGABYTE is proud to partner with GRAID and KIOXIA to develop industry-leading Gen 4 NVMe SSDs that deliver blazing fast performance.”

DANIEL HOU, VP NETWORKING & COMMUNICATION AT GIGABYTE

READ THE WHITEPAPERS

LEARN MORE NOW: [GRAIDTECH.COM](http://GRAIDTECH.COM)

# Ready to Accelerate Your Data Center?

Join the future of enterprise data protection. **Contact us today.**

Learn more about the world's first NVMe and NVMeoF RAID card to unlock the full potential of your SSD performance—enabling enterprise data centers to achieve record-breaking performance without sacrificing data security or business continuity.

GRAID Technology is headquartered in Silicon Valley, with a sales office in Ontario and an R&D center in Taipei, Taiwan. Our leadership is composed of a dedicated team of experts with decades of experience in the SDS, ASIC and storage industries.

## Contact Us Now

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