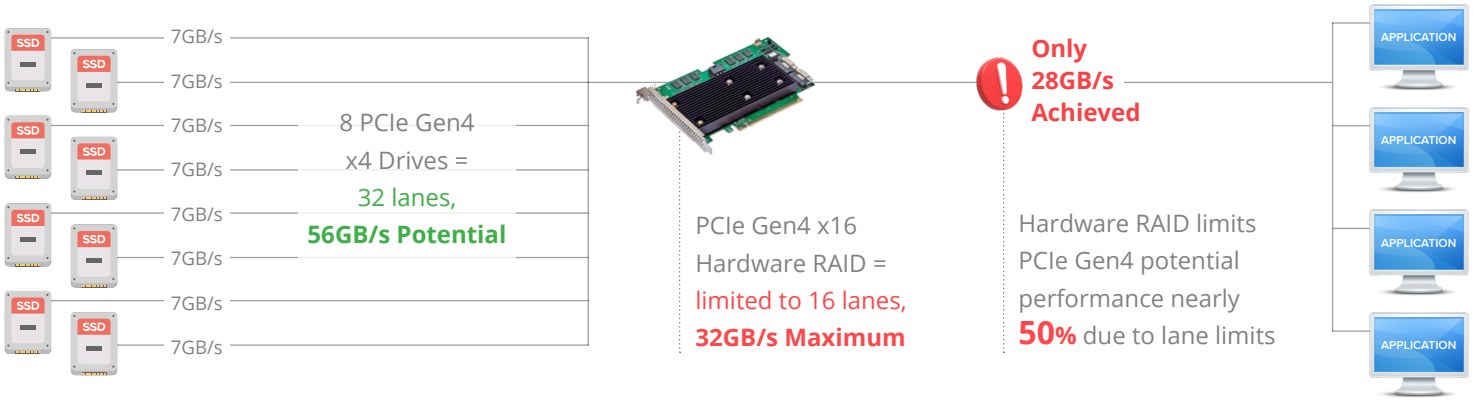
Graid Technology Inc.

SupremeRAID™ vs. Hardware RAID

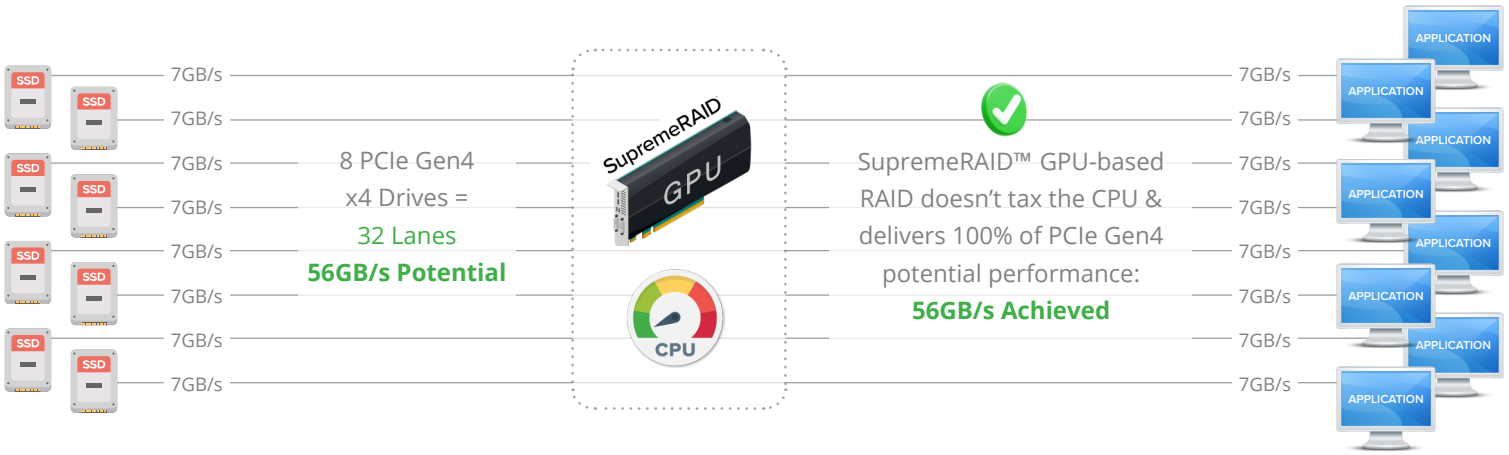
Eliminate The Hardware RAID Bottleneck with SupremeRAID™

Hardware RAID adapters are the traditionally accepted norm for delivering "high-speed" data protection. These products include specialized chips (ASIC and FPGA controllers) to achieve functional performance while protecting data. However, even the fastest hardware RAID products cannot match the aggregate performance of NVMe solid-state drives (SSDs). The resulting performance bottleneck is unavoidable and worsens when using NVM Express (NVMe) technologies. **SupremeRAID™ works differently. It combines two powerful technologies — software-defined storage (SDS) and GPU acceleration — to create an innovative solution ideal for NVMe SSD data protection. The result is better performing RAID-protected storage with the same PCIe NVMe SSDs.**

Traditional hardware RAID creates a performance bottleneck due to lane limitations...



...but SupremeRAID™ GPU-based RAID eliminates the RAID bottleneck without taxing the CPU, and achieves the full potential of your SSD performance.



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Top Reasons Why SupremeRAID™ Wins Over Hardware RAID

Record-setting RAID storage performance
Scales up to 28M IOPS and 260GB/s throughput for more SSD performance while protecting data

Modern software-defined storage
Relies on flexible software to deliver functionality, adds/improves features with every software release

GPU add-in card for RAID acceleration
Offloads RAID computations from the system's CPU, frees-up cores to process database, app workloads

PCIe Gen 3, 4, and 5 support today
Backward and forward SSD/system compatibility supports future tech refreshes with SupremeRAID™

Connect SSDs using NVMe and NVMeoF
Use internal and external direct-attached SSDs and expand storage beyond the limits of server SSD bays

Scale RAID storage from 2 to 32 SSDs
Consolidate data protection using SupremeRAID™ rather than multiple RAID solutions, avoid unnecessary redundancies

No need for battery backup modules
High performance without volatile caching, plus no battery backup modules to purchase, monitor and replace

SupremeRAID™ for both Linux and Windows
Standardize your RAID solution across multiple data centers to simplify system design, management, and administration

10x faster than the leading hardware RAID

50% higher capacity with same number of SSDs

Lower overall TCO on your server investment

	SupremeRAID™ SR-1000	SupremeRAID™ SR-1010	Traditional Hardware RAID
4k Random Read	16 M IOPS	28 M IOPS	6.9 M IOPS
4k Random Write	900 k IOPS	2 M IOPS	651 k IOPS
1M Sequential Read	220 GB/s	260 GB/s	28.2 GB/s
1M Sequential Write	90 GB/s	100 GB/s	10.4 GB/s
4k Random Read In Rebuild	3 M IOPS	5.5 M IOPS	1 M IOPS
4k Random Write In Rebuild	600 k IOPS	1.1 M IOPS	548 k IOPS

Eliminate The Hardware RAID Bottleneck with SupremeRAID™

SupremeRAID™, the world's fastest NVMe and NVMeoF RAID solution for PCIe Gen 3, 4 and 5 servers, blasts performance to 28M IOPS and 260GB/s and supports up to 32 native NVMe drives to deliver superior performance while increasing scalability, improving flexibility, and lowering TCO. **Visit graidtech.com to learn more.**

Contact us today at info@graidtech.com

LEARN MORE:

- SupremeRAID™ vs. Software RAID
- SupremeRAID™ White Papers
- SupremeRAID™ Resource Library

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