SupremeRAID™
When GPU meets NVMe

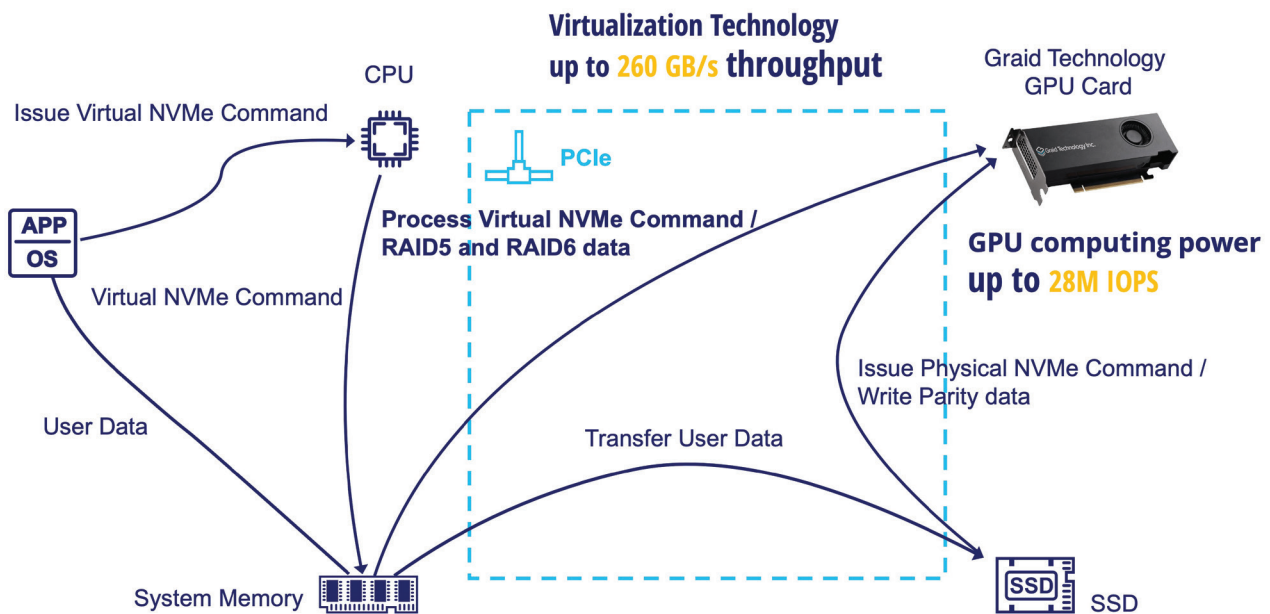**Graid Technology Inc.**

- **Enhanced storage performance**
    10 times write throughput compared with Linux MD
    3 times Random IOPs enhancements over Linux MD
    Industry leading IOPs performance
- **Scalability**
- **Reliability & High Availability**
- **Non-service impacting fast rebuilds**

Graid Technology delivers the next generation of super-fast NVMe-based storage infrastructure. SupremeRAID™, a revolutionary GPU-based RAID technology, delivers the speed, ease of use, flexibility and TCO that market demands for high-performance workloads.

Virtualization Technology up to 260 GB/s throughput

CPU

Issue Virtual NVMe Command

PCIe

Process Virtual NVMe Command / RAID5 and RAID6 data

Graid Technology GPU Card

GPU computing power up to 28M IOPS

APP / OS

Virtual NVMe Command

Issue Physical NVMe Command / Write Parity data

User Data

Transfer User Data

System Memory

SSD

SupremeRAID™ : The Next Generation of NVMe RAID Technology

SupremeRAID™ works by installing a virtual NVMe controller onto the operating system, and integrating a high-performance Nvidia-based GPU to handle all RAID operations of the virtual NVMe controller.

This setup offers many advantages:
· Takes full advantage of NVMe performance – 6 million random IOPS which is currently the industry leading performance benchmark
· Overcomes many limitations of traditional hardware RAID cards, such as slow performance, and limited PCIe bandwidth
· Plug and play
· Supports NVMeoF for shared storage over Ethernet
· Highly scalable, with future software functions such as compression and encryption