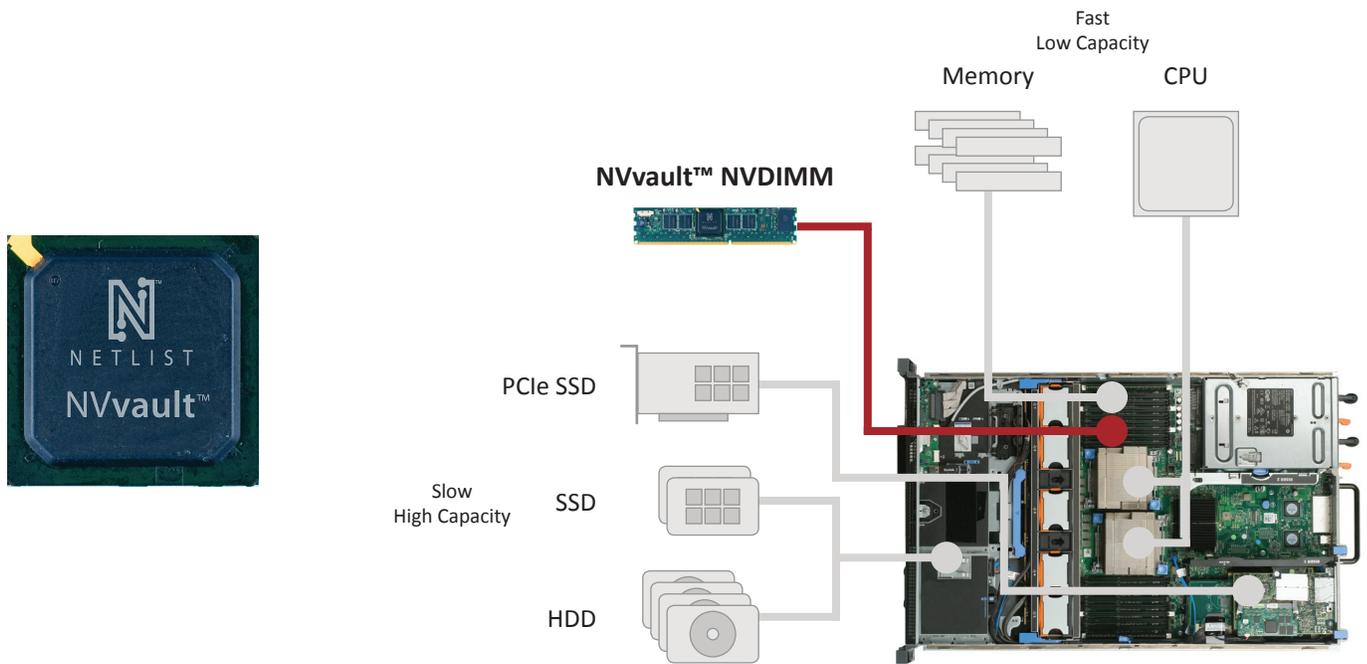# Why NVDIMM?

Netlist NVvault NVDIMM is the first hybrid memory to combine the best attributes of DRAM and NAND Flash on a DIMM subsystem to provide acceleration and persistence in server and storage applications.

Performance

"Hot" data (cache, metadata, indexes, etc.) is available at nanosecond DRAM speeds while less frequently accessed data can be stored in lower tier PCIe Solid State Drives (SSD), SATA/SAS SSDs and hard drives. In addition to dramatically improved system performance, total cost of ownership (TCO) is reduced by extending the life cycles of all SSDs used in the system. Instead of wearing down SSDs which have limited write endurance, data is instead written continuously to the DRAM portion of the NVDIMM.
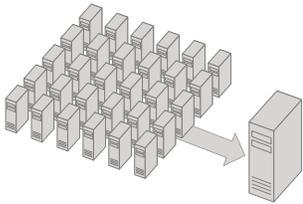
NVvault®
Non-Volatile Dual In-Line Memory Module
NVDIMM Applications

Tiered Storage

- Storage closest to the CPU
- Increased data rate
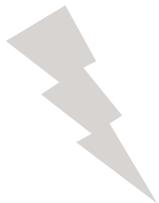- Enhanced SSD endurance and reliability

Database

- In-memory database
- Memcached consolidation
- Increased transaction rates

Virtualization

- Increased virtualized machines (VMs)
- Faster response times
- Tiered application priority

Data Protection

- Data protected from power outages
- Restores faster than other solutions
- Less maintenance than batteries

Applications

- Write Caching
- Metadata Storage
- Tiered Storage
- Data Protection
- In-Memory Database
- Big Data Analytics
- On-Line Transaction Processing
- Virtualization
- RAID Storage

NETLIST