



## NEXT GENERATION NVDIMM

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#### **NVDIMM** Description





- "Hybrid" Memory Module Combining DRAM and NAND
  - Speed, endurance, and random byte addressability of DRAM
  - Non-volatility of NAND Flash
- Enables Main Memory Persistence
  - Data in DRAM is preserved through system power cycles
  - Backup energy supplied by supercap
- Typical Use Cases
  - Storage cache, metadata acceleration



# Impact Of Emerging Technologies On NVDIMM





- SCM As Flash Replacement
  - Energy-efficient data transfer

- Supercap Alternatives
  - Higher energy density



#### **Next Generation NVDIMM Attributes**

### Higher DRAM Capacity

- Keep Pace With Growth In Datasets
- Enable New Applications

### Smaller Energy Module

- Simpler Mechanical Integration
- Zero Impact On Chassis Resources

Quicker Recovery Time

- Shorter SAVE, RESTORE, Charge
- Increased System Availability





### Thank You

