Shared Storage
Optimized for Media Workflows

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Shared Storage and Workflow Trends

- **Wide Area Production**
  - Distributed acquisition
  - Distributed workforce

- **Solid State Storage in Enterprise Media Storage**
  - Targeted uses
  - Enhancing performance and reliability

- **Challenges for Media Storage Industry**
Wide Area Production
What qualifies as “wide”?
- The Atlantic Ocean is Wide

What does wide area production enable?
- Content can be portable sometimes people cannot
Solid State Applied to Enterprise Media Storage
Enterprise Media Storage

Capacity
  – Often the entire working library

Heart
  – This library is at the center of all workflows

Performance
  – Must satisfy all clients or it can’t be the heart

Reliable
  – Don’t worry about recovery. Worry about not going down.
Typical Use Cases

Content
- Majority HD
- Still managing deep libraries of SD
- 4k short form and episodic
  - File based ingest RAW to ProRes for editorial
  - Drives performance need curve

Systems
- 0.5-2.0 PB are typical
  - Too large to go all flash for now
Layered Approach

- **Persistent**
  - SSD
  - NVRAM
  - Disk

- **Fast**
  - Access
  - Commit
  - Walk

- **Reliable**
  - Redundant
  - Predictable
Targeted Uses and Evolution

- **Boot disks (USB)**
  - Evolution
    - Future: msata?

- **Storage nodes (NVRAM)**
  - Evolution
    - Battery backed > supercap DRAM + SSD > future: NVDIMM
    - Fast Ack Cache
    - Disk addresses

- **Metadata servers (2.5” SSD)**
  - Tree
  - Attributes
  - Fast walk

- **Bulk Data…**
Challenges for Industry

- **Intelligent Tiering**
  - Get the right content, into the right place, without manual intervention

- **Project Caching**
  - Edge clients with 0.5-1TB of SSD
Thank You

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