



# Solid State Applied to Enterprise Media Storage

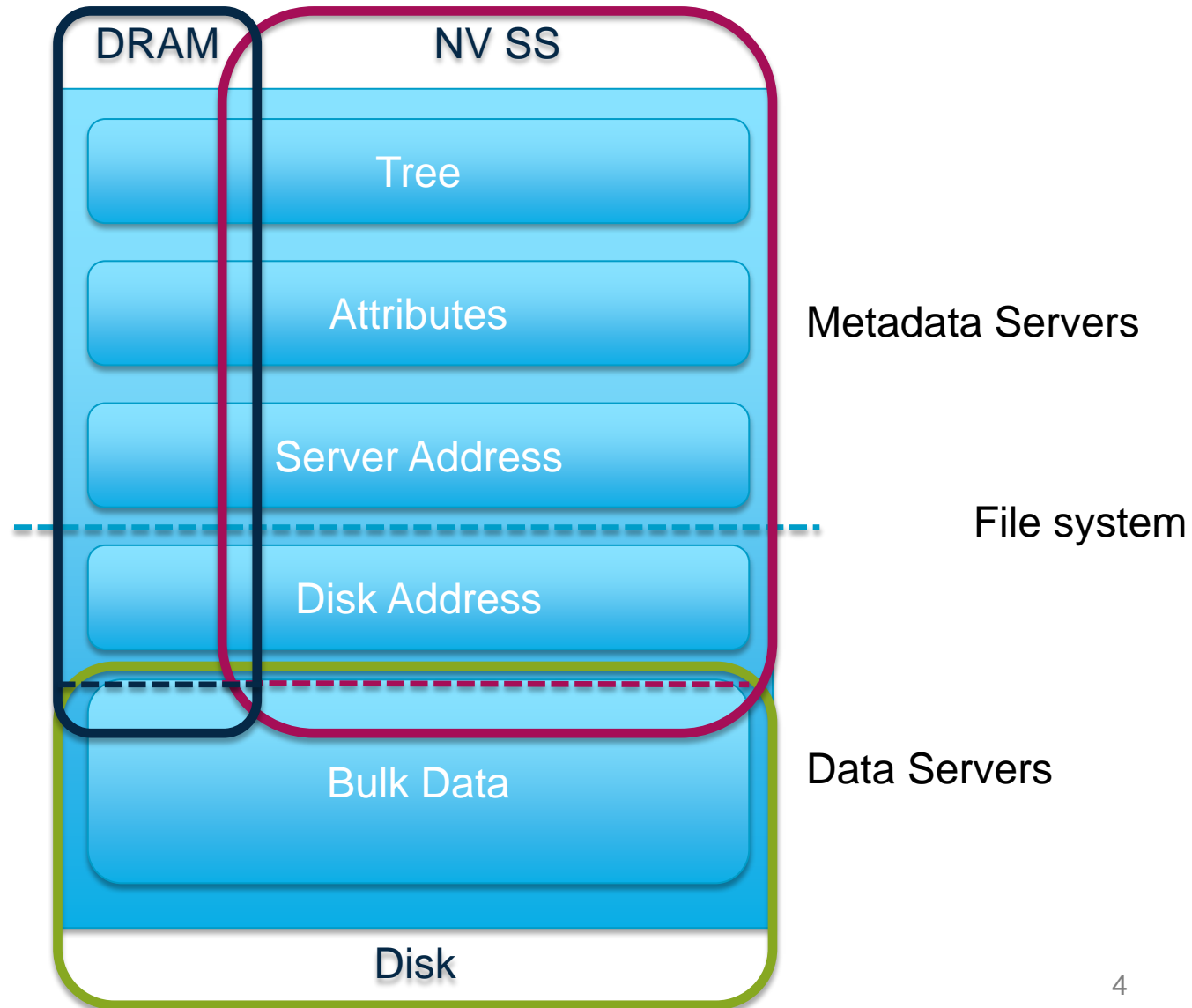
Matthew Rehrer

- 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.

- 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

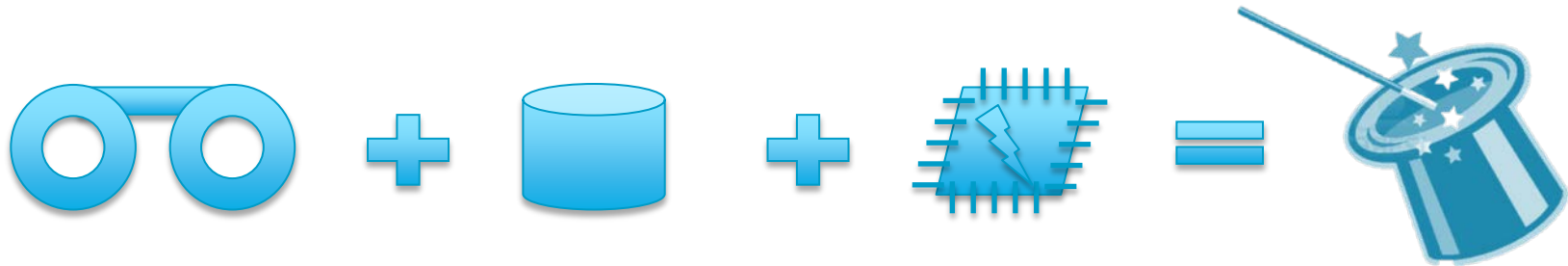
- Persistent
  - SSD
  - NVRAM
  - Disk
- Fast
  - Access
  - Commit
  - Walk
- Reliable
  - Redundant
  - Predictable



- Boot disks (USB)
  - Evolution
    - Future: msata?
  
- ContentServer (NVRAM)
  - Evolution
    - Battery backed > supercap DRAM + SSD > future: NVDIMM
  - Fast Ack Cache
  - Disk addresses
  
- ContentDirector (2.5" SSD)
  - Tree
  - Attributes
  - Fast walk
  
- Bulk Data...

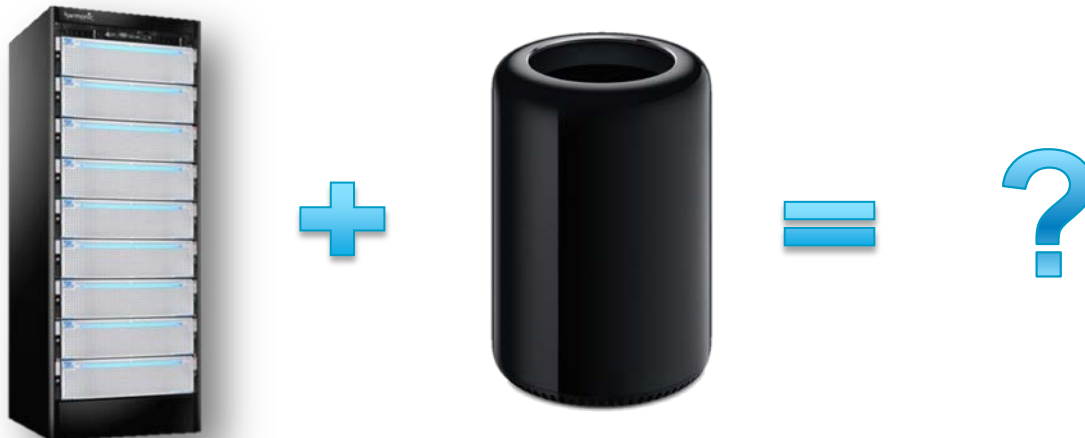
- Intelligent Tiering

- Get the right content, into the right place, without manual intervention



- Project Caching

- Edge clients with 0.5-1TB of SSD





Thank You