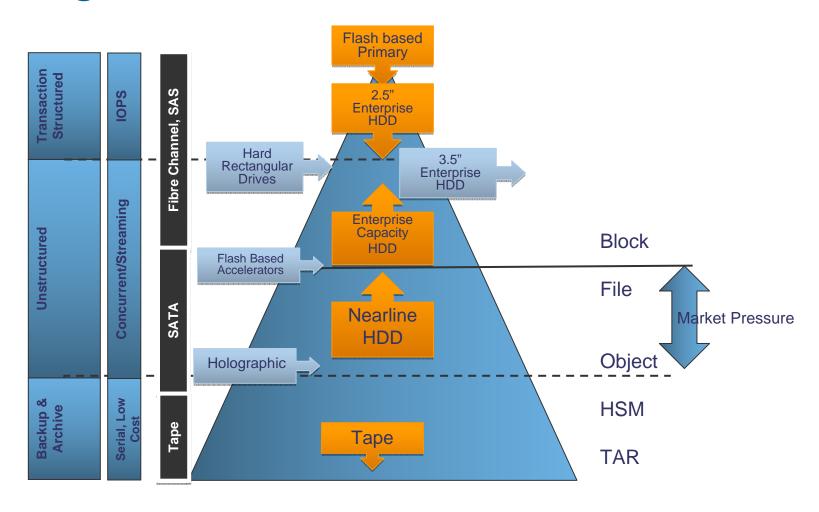
# Storage Trends

#### Paul Rutherford

Isilon Systems



## Storage Market Trends





## File System Trends

- Scalability
  - Billions of objects
  - Single/Global Name spaces
- Availability
  - Resilience to failures Self Healing
  - Failure Isolation Partitioning
- Performance
  - Single Stream, Concurrent, Random
  - All in one system
- Simplicity
  - Installation, Expansion, Management, repair



#### **General Questions**

- What about the CLOUD?
  - The CLOUD will be used for volatile data
  - Valuable data will be managed as today
    - In house or outsourced
- Next Disruption
  - Scale-out Storage
  - Extremely reliable media or...
    - Free media
  - Scalable Rich Meta-data Storage



## Purpose Built

- Low cost storage
  - Maybe low or no SLA
- Meta Data Rich
- Long term WOMM
  - Write Once May Modify
  - Allows simplification of structure
- Content Aware
  - Special purpose built-in functions



#### Scale-out Systems

- Today
  - 144 Nodes
  - 5+ PB
  - 15 Racks
- Future
  - 288 Nodes
  - 20+ PB
  - 30 Racks



