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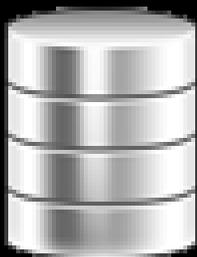
Storing Data Over Time – 5, 20, 50 PiB



Storing Data Over Time - Challenges

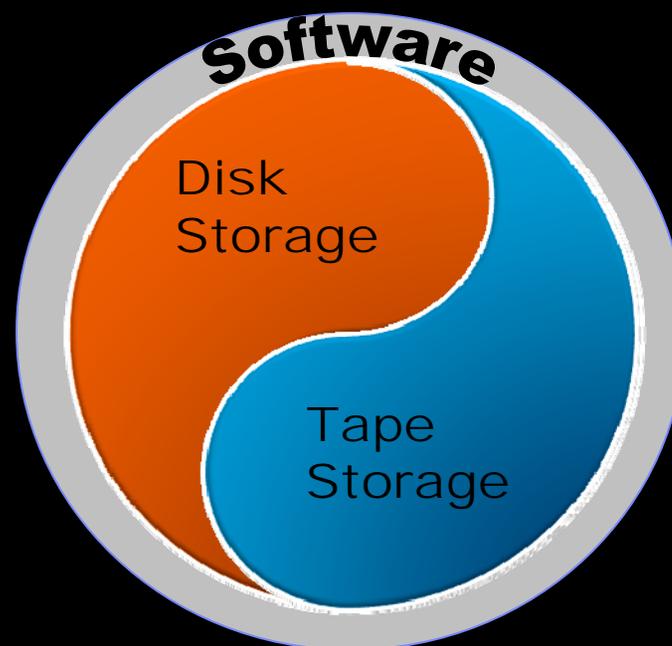
■ Challenges

- Storing a large and compounding Archive
- Staying within constraints of Space and Power
- Ease of use for end users retrieving data



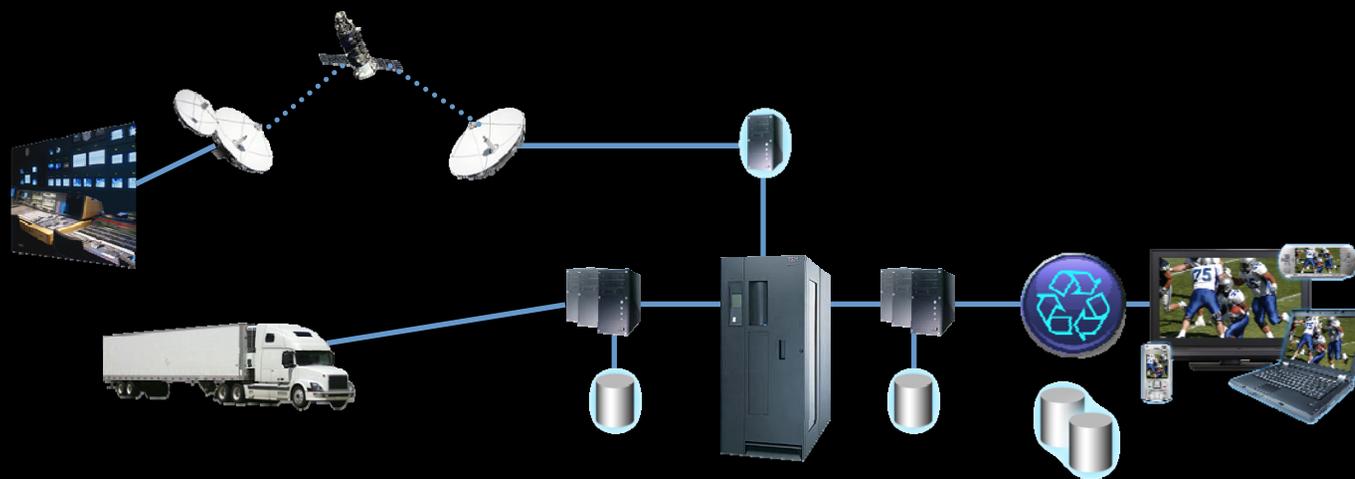
Storing Data Over Time – Keys to Success

- Keys to success
 - Ease of data ingest
 - Tiered storage
 - Ease of Technology Update



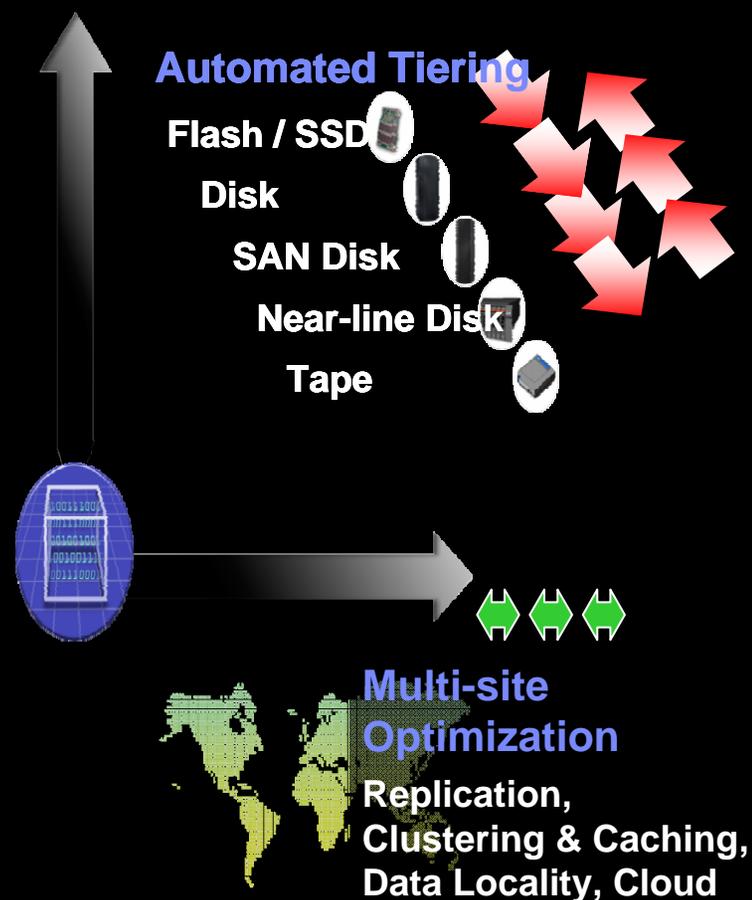
Storing Data Over Time – Ease of Ingest

- System allows easy connectivity from many original sources.
- Open Storage that consolidates easily
- Primary ingest storage is fast at a higher cost



Storing Data Over Time – Tiered Storage

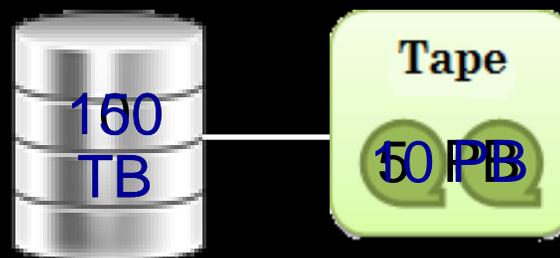
- Combine technologies – Flash, Disk, Tape
- Open Storage technologies that work close together
 - Use File System technologies to move away from need for Administration of data
- Archival storage is lowest cost solution



Storing Data Over Time – Ease of Technology Update

- Technology updates for primary archive Storage should:
 - Re-use existing storage Medium to reduce migration
 - Use same floor space/power while increasing capacity
 - low down time for upgrades

Technology Update



Storing Data Over Time – Tiered Storage in an Open Environment

- Global Name spacing for ease of customer/Application use
 - Flash for data ingest and processing
 - Disk for file caching on archive and restores
 - Tape for tier 3 / Archive storage

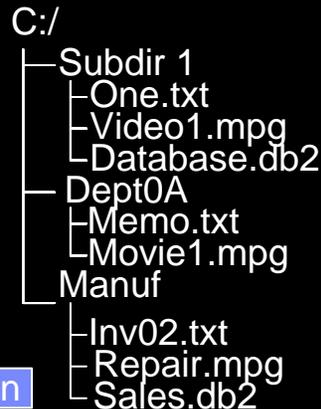
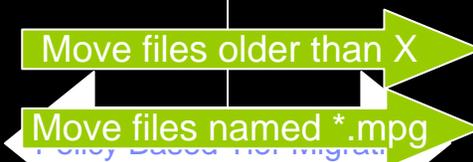
- Tape using file system format
 - Allows for Cloud application integration
 - Fast ingest to the Global name space
 - Ease of data sharing
 - Industry recognized lowest Total Cost of Ownership for Big Data



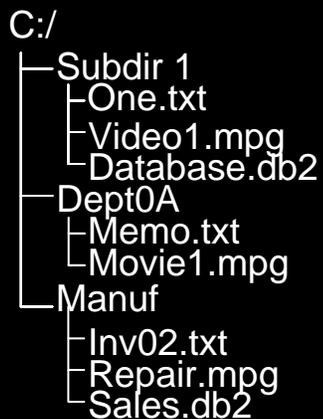
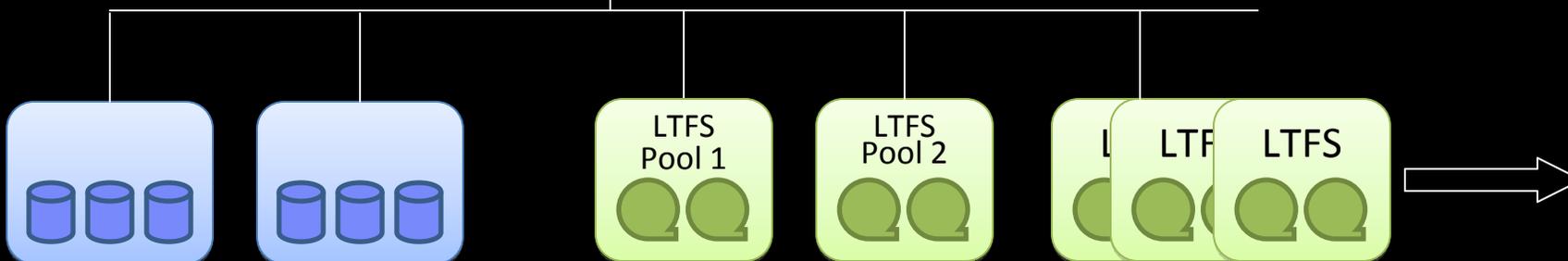
Storing Data Over Time – Tiered Storage transparent migration

File Namespace

➤ Single file system view
C:/user defined namespace



File Storage Tiers



One.txt
 Memo.txt
 Inv02.txt
 Memo.txt
 Video1.mpg
 Movie1.mpg
 Repair.mpg

Thank You