



THIC Inc.

The Premier Advanced Recording Technology Forum

Trends in Archive Automation

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1940**

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QStar Technologies

- ▶ **International Company**
- ▶ **Established in USA in 1987**
- ▶ **Opened European offices in 1994**
- ▶ **Headquartered in:**
 - ▶ **Mary Esther – Florida, USA**
 - ▶ **Milano – Italy**
- ▶ **Worldwide support:**
 - ▶ **Australia, Italy, Japan, US, UK**



Market Forces Driving Data Automation

- ▶ **Cost of physical storage dropping**
 - ▶ Users retain more for less
 - ▶ ~\$2/GB for disk based storage
- ▶ **Unstructured and rich media distribution**
 - ▶ Streaming video
 - ▶ Email and attachments
- ▶ **Industry regulations and best practices**
 - ▶ Business asset (Turn data to information)
 - ▶ Fixed and dynamic retention dates
 - ▶ Financial, Medical, Legal, DoD
- ▶ **IT managers are caught between a rock and a hard place**
 - ▶ What to retain, what to delete, when to delete it
 - ▶ Not the decision maker
- ▶ **Data Value**





Data Management Pain Points

- ▶ **Backup is widely reported as the biggest point of pain**
 - ▶ **Too much data, too little time**
 - ▶ **Cost of off-site management of large data sets**
 - ▶ **Lost media (Encryption is no longer option)**
- ▶ **Uncontrollable redundant Data across the enterprise**
 - ▶ **Ensure information has been deleted on all media types**
- ▶ **Timely access to archives**
- ▶ **Off-line data is no longer an acceptable solution**



Vendors Answers to the Problem

▶ Information Lifecycle Management

- ▶ Lots of hype but not a lot of traction

▶ Benefits:

- ▶ Understanding what you have
- ▶ Understanding how that data is associated to business units
- ▶ Classify the data based on its business value
- ▶ Move that data to a relevant storage class based on value and access requirements
 - ▶ Tiered based storage management

▶ Drawbacks:

- ▶ Hard sell at the SMB level
- ▶ Not a single vendor solution
- ▶ Every vendor has their own definition based upon their offering
- ▶ Every customer has their own definition based on needs





Storage Requirements

- ▶ **Active Data Requirements**
 - ▶ **Uninterrupted Data Availability**
 - ▶ **High Performance Read and Write Capabilities**
 - ▶ **Maintain business continuity (99.999% up time)**
 - ▶ **Backup and Disaster Recovery Requirements**
 - ▶ **High Media Density**
 - ▶ **High Performance Streaming Capabilities**
 - ▶ **The Lower the Cost the Better**
 - ▶ **Secure-Access**
 - ▶ **Archive Data Requirements**
 - ▶ **Authentic**
 - ▶ **High Media Density**
 - ▶ **Extended Media Life (Mitigate Migration Over Time)**
 - ▶ **High Performance, Indexed and Searchable**
 - ▶ **Revision Secure**
 - ▶ **The Lower the Cost the Better**
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Technology Innovation

- ▶ **Expanded use of hard drive systems in archive apps**
 - ▶ **Content Addressable Storage (CAS)**
 - ▶ **Single Instant Storage**
 - ▶ **Unique file fingerprint**
 - ▶ **Lifecycle management properties**
 - ▶ **Hard drive based (NAS)**
 - ▶ **Removable hard drive media**
 - ▶ **Library automation**
 - ▶ **Disk packs and simulated tape drives**
 - ▶ **VTL and disk-2-disk backup**



Technology Innovation

- ▶ **Higher density optical storage systems**
 - ▶ **BluRay, HD-DVD**
 - ▶ **50 GB**
 - ▶ **Very low media cost**
 - ▶ **Holographic storage**
 - ▶ **Very high density 300 GB**
 - ▶ **Very low media cost**



What are users asking for?

- ▶ **Management:**
 - ▶ **Combine archive and backup applications**
 - ▶ **Tiered storage management**
 - ▶ **Data Classification**
 - ▶ **Custom Meta Data Searches**
 - ▶ **Determine data associations**
 - ▶ **Assign value to data**
 - ▶ **Automated management of data based on classification**
 - ▶ **Google data**
 - ▶ **Indexable**
 - ▶ **Searchable**



What are users asking for?

- ▶ **Protect and preserve assets**
 - ▶ **Protected continuous backup of primary and archive data**
 - ▶ **Redundant data sets in separate locations**
 - ▶ **Eliminate off-site storage**
 - ▶ **Failover recovery and self-healing system**
 - ▶ **No down time**
 - ▶ **Easy single file restore**

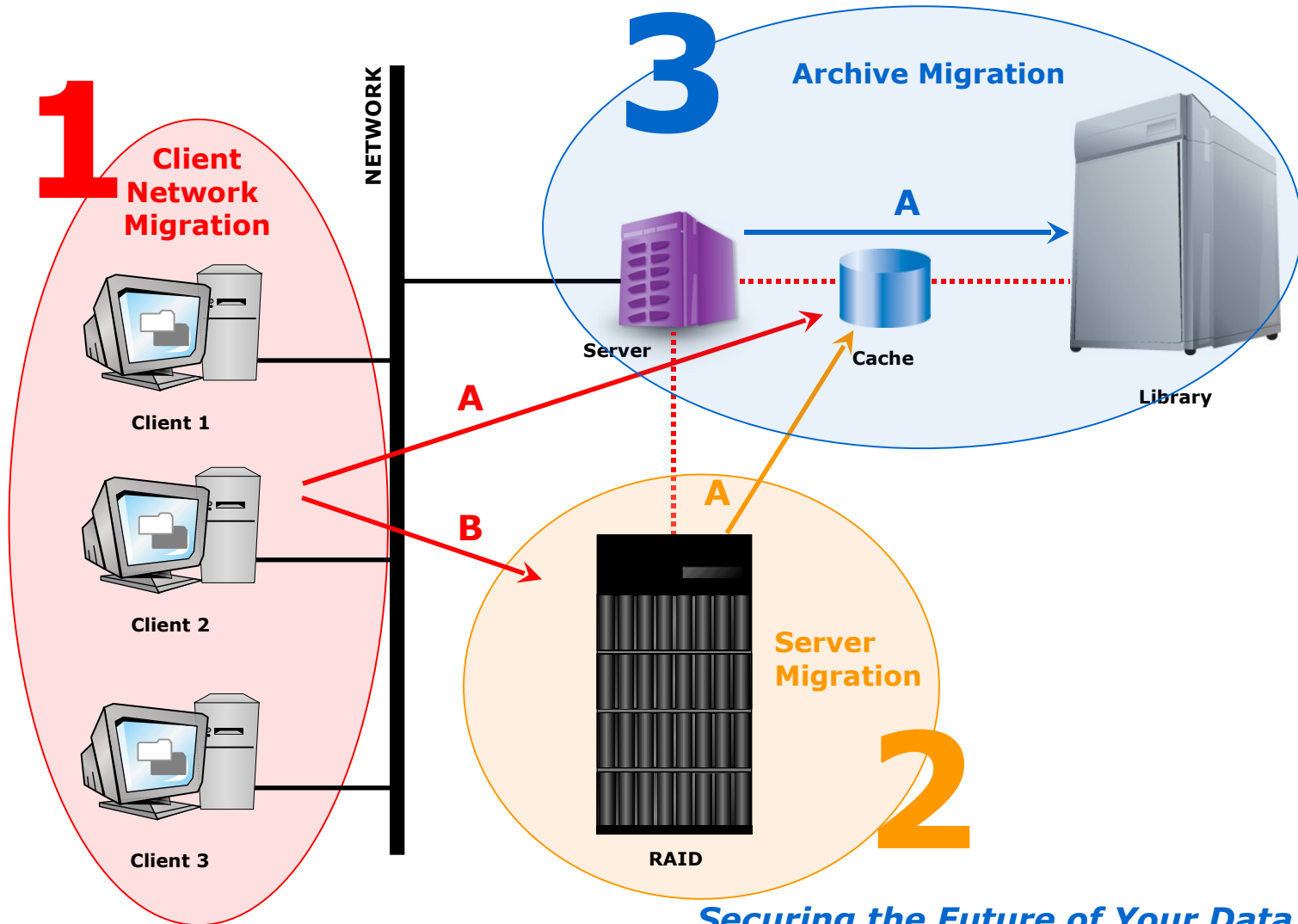


What are users asking for?

- ▶ **Disaster prevention rather than disaster recovery**
 - ▶ **Archive data mirroring**
 - ▶ **Managing off site archive data, near line**
 - ▶ **Secure**
 - ▶ **System contained**
 - ▶ **Policy based retention management**



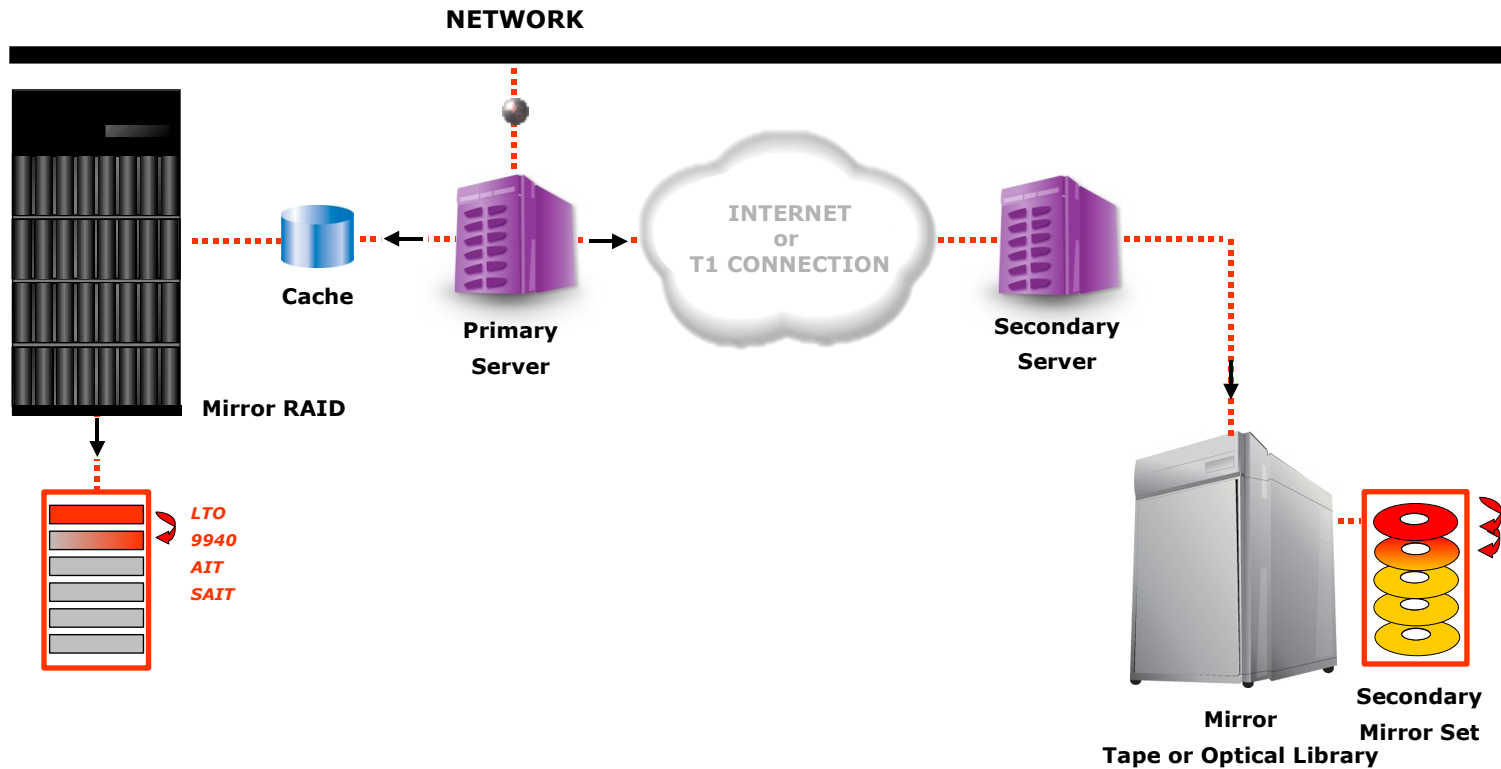
A Tiered Based Storage Model



Continuous Archive Data Protection

▸ Continuous Archive Data Protection Example

- Mirroring: One RAID, One Jukebox and Dual Server



Thank You

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