Designing Storage Architectures for Digital Preservation: Panel 3 – HSM Future

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Library of Congress
Henry Newman
Our Distinguished Panelists

• Paul Leury Crossroads
• Diamond Lauffin FileTek
• Thomas Clark IBM
• Brad Blasing Oracle
• Jonathon Otis Quantum
• Lance Evans SGI
Question for the panel

• What is the future market for what we now call HSM
• How do you see the future specifically for HSM technologies and why?
Ground Rules for all of us

• 4 minutes per panelist timed
• No discussion about specific hardware or software products is allowed
• We expect 10 minutes for discussion among panel members and moderator after the individual presentations, and then questions from audience
Thoughts and considerations

- What are the challenges for HSM software?
  - Are new standards emerging?
    - If so what are they and what requirements do they address?

- What sizes do you expect to see archival/long-term systems grow to in 2012, 2015 and 2018?
  - What markets will see the biggest growth?
    - Why?
    - What industry-wide software challenges do you see?

- What are the challenges to migration?
  - Media migration to denser media
  - Migration from one HSM to another
LOC Challenges

• How can data integrity be ensured?
  – Where are the standards?
    • There is T10 (PI/DIF and DIV)
    • But what about end to end?

• For each storage system and component type how can LOC calculate
  – Silent corruption rate
  – What is the integrity of a bit data given copy count on various media types
    • It is likely impossible to calculate everything including software errors and intentional destruction by an employee
  – That is why software layer is critical, but where are the end to end standards that meet our requirements
Panelists – Take It Away

Audience: Please hold questions until after the panelists have spoken