Retention standards for electronic State records can include extended terms up to infinite “permanent” duration mandates. This will eventually render data storage formats and media unavailable. This session will address strategies to protect long-term electronic record access.

EARLY DATA STORAGE
LESS THAN 1MB OF DATA

STORAGE FOR DATA LARGE AND SMALL

DATA RETENTION REQUIREMENTS
- Texas Agency Hiring Documents – 3 Years
- Infant Delivery Records – 21 Years
- Sex Offender Registry Data – 75 Years
- Health Records (Hansen’s) – Permanent
- State of Texas Records Retention Schedule
- Federal Records Retention Schedule (Clery Act, etc)
RETENTION CODES

AC - After Closed, Terminated, Completed, Expired, Settled
AV - Administrative Value
CE - Calendar Year End
FE - Fiscal Year End
LA - Life of Asset
MO - Months
PM - Permanent
US - Until Superseded

STORAGE MEDIA

MEDIA AND LOST DATA
90% of the silent movies made before 1929.
Half of all movies made before 1950.
OPTICAL STORAGE

11/5/2013

Kalani Kirk Hausman, Texas A&M University

- LaserDisc (0.3GB)
- Blu-Ray (128GB)

NEAR-FUTURE STORAGE

- Experimental Holographic Optical Disc (6TB – 50TB)
- 7-platter Magnetic 3.5" Drive (6TB)

DATA FORMAT AND SOFTWARE

11/5/2013

Kalani Kirk Hausman, Texas A&M University
ROSETTA STONE

MY COMPUTER IN COLLEGE

EARLY WORD PROCESSERS
THEN TO NOW

APPLICATIONS IN THE CLOUD

SILOS AND COMPLEXITY

- Cloud Resources
  - Data Storage
  - Applications
  - Desktop Virtualization
- Mobile Technologies
  - Smart-phones
  - Tablets
  - Laptops
- Bring Your Own Devices (BYOD)
WHERE EVERYTHING LOOKS LIKE A NAIL

OUR LIBRARY

WHAT WE IMAGINE IT WILL LOOK LIKE
WHAT IT ACTUALLY LOOKS LIKE

WHAT WE HAVE TO STORE

SKILLS AND EQUIPMENT
STRATEGIES

1) PRINT EVERYTHING

- Not everything is static content
- Space and Pests

2) USE ARCHIVAL-QUALITY MEDIA

- 100 yr Best-Case
- 11 yr Common Use
- Environment
  - UV lighting
  - Temp
  - Humidity
  - Vibration
3) KEEP SPARES OF EVERYTHING

- Complexity Increases
- Space and Expense
- Maintenance Requirement
- Component Availability

4) VIRTUALIZE HARDWARE

- Retain Complexity
- Expand Skill Sets
- Enhance Online Threat
- Risk App/Host Compatibility

5) USE REDUNDANCY IN THE CLOUD

- Loss of Local Control
- Subject to By-Use Cost (utility model)
- Requires Operational Internet Contact
ACCIDENTS HAPPEN

- Accidents and Acts of Nature
- Skill Set Availability
- Preservation
- Not Just Protection
- Needed

6) BUILD A CULTURE OF PRESERVATION

- Select and Maintain Standards
- Build Bridges Between Silos
- Implement a Cycle of Tech Refresh for Storage and Apps
- Identify Data For Preservation
- Store Only What Is Needed

QUESTIONS?
THANKS

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My thanks to the IT professionals in the State of Texas for their tireless efforts to protect a record of data resources documenting the evolution of our Government and its agencies.

I thank you all for taking time to give me your attention and interest during this Conference. I hope you will take this idea and build the State’s future data preservation “vaults” well.

- Kalani Kirk Hausman

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