

Records Management, Storage & Retention



Records Management



- What is it?
 - The systematic management of all records over the life cycle (creation, distribution, maintenance, retrieval, final disposition).
 - The discipline and organizational function of managing records to meet operational business needs, accountability requirements and community expectations.



Records Management - Terms



- Terms as used in this discussion
 - Documents – one or more sources from which information is gathered; may provide primary, supporting or inconsequential information
 - Records – Organized information created from documents for a specific purpose
 - Indexes – Structured Data used for quick retrieval of records and documents
 - Images – Electronic copies of documents, whether originally created in paper or electronically



Records Management – Creation



- Creation of records starts with documents
- Documents:
 - May be created on paper
 - May be created electronically
 - May provide only crucial information
 - May provide information not needed for creation of records for a particular purpose



Records Management – Creation (continued)



- Records:
 - Includes the concept of organization of information
 - Are organized; documents may be disorganized, chaotic, difficult to understand
 - Are created to organize, summarize, or associate information contained in documents
 - Requires understanding of the uses of the information



Records Management – Creation (continued)



- Indexes:
 - Derived from recorded information
 - Allow for quick access to records and documents
 - Possibly different from documents (faulty indexing, standard office practices, ignores information deemed inconsequential from indexing)



Records Management - Distribution



- Requires use of indexes or examination of records or documents
- Distribution is today increasingly accomplished through Internet access to records and document images
- May be provided on a record by record basis or through the bulk delivery of data and images



Records Management – Maintenance



- Filing offices usually maintain data and images using database technologies
- Access through use of indexes
 - “Key field” queries
 - Balance of record information lifted from the database based on key field matches
 - Document images associated with records may be available



Records Management – Image Storage



- Images may be stored and accessed in several different ways
 - Paper media
 - Microfilm/fiche
 - Optical platters
 - RAID devices



Records Management – Image Storage



- Paper Media
 - Durable
 - Transportable
 - Technology Independent
 - Not very searchable
 - Requires physical access to location where paper is stored
 - Requires a lot of room(!)



Records Management – Image Storage



- Microfilm/fiche
 - Durable (LE of 500 years if properly stored)
 - Transportable
 - Technology Independent (well, kind of)
 - Ease of search depends on the ways in which indexes are created
 - Requires physical access
 - Requires much less room than equivalent paper media storage



Records Management – Image Storage



- Optical Platters
 - Durable
 - Not transportable
 - Technology dependent
 - Speed of access may be light-years ahead of paper and microfilm/fiche, but may be affected by how many platters and drives are available
 - MTBF in mechanicals in “jukebox” drives may cause concern



Records Management – Image Storage



- RAID devices
 - Step above simple storage on hard drives
 - RAID means “Redundant Array of Independent Disks”
 - It allows data to be stored in multiple locations (redundant)
 - Consists of a controller and two or more drives (array)
 - Stripes or interleaves data across multiple drives, so more than one drive is reading and storing data simultaneously (independent)



Records Management – Image Storage



- RAID devices (continued)
 - Different RAID levels provide different results
 - RAID 0 – interleaves data across multiple disks – increases speed, does not provide safeguards against failure
 - RAID 1 – uses disk mirroring to achieve full data duplication across multiple drives
 - RAID 3 – data striped across multiple drives; parity bits stored on dedicated drives
 - RAID 5 – similar to RAID 3, but parity bits are interleaved across multiple drives
 - RAID 1/0 or 10 – combination of RAID 0 and RAID 1



Records Management – Final Disposition



■ Retention Policies

- Storage is cheap; may not be in the business of purging data and/or images
- Record Holds – prevent destruction of sensitive information
- Different approaches to record availability
 - On-line – always accessible
 - Near-line – removable media, perhaps in a tape array or some other storage device
 - Off-line – removable media in a “cold storage” status



Records Management – Future



- Increased usage of clustered or affordable multi-terabyte devices has changed the equation
 - May change or eliminate the discussion about retention
 - Allows full-text searching for OCR-type or natively text-based documents
 - Google and other commercial search engines have changed expectations



Records Management – Future



- Technology-Independent long-term or permanent storage concerns
 - Document formats will change
 - Computer systems will change
 - Life Expectancy concerns
 - Magnetic Tapes – 10-30 years
 - Optical disks – 5-100 years
 - Paper – 100-500 years (archival grade, acid-free paper)
 - Microfilm – 10-500 years



Resources



- Association for Information and Image Management (AIIM) – www.aiim.org
- Washington State Digital Archives – www.digitalarchives.wa.gov
- National Institute of Standards and Technology – www.nist.gov

