

Regulatory Impacts on E-Records Management Decisions

Prepared by the NECCC Records Management Work Group



NATIONAL ELECTRONIC COMMERCE COORDINATING COUNCIL

Copyright © 2005 by National Electronic Commerce Coordinating Council

NECCC
2401 Regency Road
Suite 302
Lexington, KY 40503
(859) 276-1147
www.ec3.org

Made in the United States of America.



NECCC is a consortium of national organizations and public and private sector leaders identifying best practices for strategic change within government.

Alliance partners are:

National Association of State Auditors, Comptrollers and Treasurers
National Association of Secretaries of State
National Institute of Governmental Purchasing

NECCC also works in partnership with these affiliate organizations:

Association of Government Accountants
Information Technology Association of America
National Automated Clearing House Association
National Association of Government Archives and Records Administrators
National Association of State Treasurers

Table of Contents

Introduction.....	1
Scope of the Challenge.....	2
From Burden to Preserve and Produce.....	2
A Brief History of Information Management in Government.....	3
E-Government and Process Improvement Efforts.....	4
The Impact of Legislation.....	5
Trends in Legislation.....	5
Records Laws.....	5
Retention Laws.....	6
Format Laws.....	7
Disclosure/Access Laws.....	9
Responding to the Challenge.....	11
Trends in Response.....	11
Avoiding the Issue.....	11
Affirmative Responses.....	12
Trends in Technology.....	13
E-Discovery and New Developments.....	14
Technology and Records Management.....	15
Unifying Our Approach.....	16
International and National Standards.....	16
Case Studies.....	18
General Records Retention Laws in Arkansas.....	18
Regulatory Impact of E-Records Management Decisions: A Library of Congress Case Study.....	20
Washington State and the Challenge of Electronic Records Management.....	23
Resources and Guidelines.....	27
NECCC Resources.....	27
Standards.....	27
National Policies.....	28
Reports.....	29
Projects.....	30
Reference.....	30
Acknowledgements.....	33
Appendix A: Spreadsheet of Approved Records Management Applications.....	35

Introduction

This paper seeks to describe and discuss the impact on state and local public agencies of the unintended results created by new regulations and changes in regulatory assignments (new work) by requiring them to:

- Create new types of electronic records (e-records).
- Change recordkeeping formats to electronic formats.
- Rework or re-task personnel to work in new formats.
- Redistribute funding or create new funding through fees and taxes to support e-records initiatives.

For purposes of this paper, the terms “digital” and “electronic” can be considered synonymous. “Media” refers to the *physical* characteristics of the devices used to create, manipulate and preserve digital objects. “Systems” is used to refer to both the equipment and the utilities (software, operating systems and programming) that make the equipment function to produce digital objects.

While government has been employing desktop computer technology for just over 25 years, innovations that have emerged since 1980, such as the World Wide Web (initially a federally funded project), the use of internal computing networks (LANs) and electronic mail have established digital technologies as a common conveyance of public agency information. These technologies have combined with the ubiquitous nature of desktop computing to imbed electronic records (e-records) into the daily workflow of public administration. In this new millennium, government and related agencies continue to struggle with the impacts of electronic information systems, in no small part because their capabilities and characteristics continue to alter at almost logarithmic rates.

The challenges of e-records technologies and work practices have been further complicated by a related set of issues: directives incorporated into regulatory guidance, new laws, and regulations that require new and complex electronic records responses to satisfy a demand for information in accessible formats. Technological aspects of “e-government” have been the focus of many papers and dialogs throughout government, primarily responding to its impact on specific public services, such as voter registration and vote tabulation data. This paper, however, seeks to address the overarching need for high-level public administrators to take notice of the recent significant shifts in public policy that encourage increasing investment in e-government initiatives. At the same time, we will provide examples of emerging solutions, and identify some public agency professionals who are trying to improve resources for e-records access and preservation as well as to develop methods of more efficient, effective creation of public records in electronic formats.

Scope of the Challenge

Through new policies, and with the best of intentions, our leaders are contributing to e-records proliferation without sufficient regard for the resulting confusion these mandates are creating at the response level—in the county clerks offices, the courthouses, the university international student exchange offices, the drivers' license bureaus and other publicly-funded service bureaus. Public policy is also failing to address the *future* of e-government and e-records. In a nation where our highest court still refers to the writings of constitutional authors when ruling on modern-day concerns, current leaders need to be advised of the far-reaching impacts of the push to use electronic media to improve responses to demand for information access.

From Burden to Preserve and Produce

Funding comes today with new, highly technical requirements, and imbedded within them are unforeseen impacts. Research organizations and universities are currently reviewing their institutional research policies and procedures to achieve compliance with an updated Code of Federal Regulations – 42 CFR 93, *the Final Rule on Research Misconduct*, which took effect June 2005. This amendment, while 'harmonizing' existing misconduct directives, also expresses specifications for internal record keeping associated with federally-funded research that is worthy of observation. Within the "Analysis of Impacts" (page 28381, FR 05-9643), the average cost to comply for institutions that fall under this CFR is extrapolated. This analysis does not detail the expense to these institutions of the extended retention period for records of research misconduct proceedings, to include related data and documentation, from 3 to 7 years (Sec. 93.317). Nor does it project the cost of legal production, should an institution have to respond to an investigation, to meet requirements of electronic discovery. The CFR details how "at the allegation stage, the institution must, on or before the date...the inquiry begins, whichever is earlier, promptly take all reasonable and practical steps to obtain custody of all the research records and evidence needed to conduct the research misconduct proceeding, inventory the records and evidence, and sequester them in a secure manner..." It continues to specify that copies may be acceptable, if they are legal equivalents (an issue of authentication).

Finally, this CFR demonstrates a trend in regulatory language as it includes a section, 93.512, named "Discovery," wherein it specifies "requested data (page 28398) stored in an electronic data storage system must be produced in a form reasonably accessible to the requesting party."

A Brief History of Information Management in Government

We are a nation that functions upon the basis of a fundamental assumption: that both our leaders and citizens shall be able to refer to, at *any* future date, the key documentary evidence that is the foundation of this country's system of self-regulation—records of the work of our government. These are the records of the debates, the decisions, and the final rules established to engender “a more perfect union.” While the majority of U.S. citizens are unfamiliar with the internal workings of their government, they live in an environment of established public administration, one in which a virtual avalanche of government information documents all aspects of government work.

From 1776 until about 1900, the federal government remained relatively small. State governments were even smaller, where they existed.¹ The majority of Americans alive today, if they are interested, have some idea that our modern network of public administration began, depending on the generation of the citizen, with either President Woodrow Wilson or Franklin D. Roosevelt, the later executive being well known for his record-setting creation of cabinet-level organizations. However, the current version of the primary agencies of the federal government solidified just after World War II.

In actuality, the establishment of the 14 federal cabinet agencies has contributed to the information management issues we face today. These federal cabinet agencies have a direct impact on state governments. However, the further one follows the national “org-chart” down to “main street” America (the cities, counties, universities, hospitals, and public/private partnerships spending federal funds), the more distorted and diffused the cabinet-level messages become. Following this reasoning in reverse, public servants who are on the front lines have the least access to the decision-making at the Cabinet level, whereas those decisions are having a disproportionate impact on the very offices and services intended to respond. This has proved especially true in the arena of information resource management, or information technology as it is employed in pursuit of fulfilling a two-fold mandate: accountable (transparent) and responsive government. The missions of these agencies are altering to adapt not only to changes in technology, but in legislation, as well as to public demands for access, so that each new regulation “...disrupts relationships with state and local government during the implementation phase”² of a response.

¹ As of 2005, the United States is 218 years old, based on the entry of Delaware as the first state in the Union. The most recent entries to the Union were Alaska and Hawaii, just 46 years ago.

² http://www.americanpoliticaldevelopment.org/townsquare/exec_reorg.html, “Making Democracy Work”, the first working paper in the Miller Center of Public Affairs series in American Political Development. University Of Virginia.

E-Government and Process Improvement Efforts

Any review of e-government must examine the Paperwork Reduction Act of 1980, which established a new office within the Office of Management and Budget (OMB): the Office of Information and Regulatory Affairs (OIRA). The 1995 amendment to that act created a subdivision to the OIRA called the Office of Information Policy Information Technology and E-Government. This office is responsible for the substantive review of the operations and practices of federal agencies.

It is notable that the 1995 amendment of the Paperwork Reduction Act was the direct result of the Clinton presidency efforts to downsize and streamline the federal government as expressed in the Government Performance and Results Act of 1993, which implemented a national performance review of far-reaching scope of the cabinet agencies. President Clinton's efforts were in fact a continuation of reforms tracing back to President Carter's reorganization within the OMB. That the Carter Administration was responding to yet another act of Congress, the Government in the Sunshine Act, enacted in 1976, should not detract from this direct lineage to the nation's current information management and e-government issues. The Sunshine Act "declares that the public is entitled to the fullest practicable information regarding the decision-making process of the Federal government. The Act requires agencies to open all their meetings to public observation, except when it is anticipated that matters exempt under the Act likely will be discussed."³ This act had the effect of starting a legislative ball rolling that continues to tumble along today.

A timely example of the legislative "daughters" to the Paperwork Reduction Act as amended in 1995 are two bills presented in May 2005 to both the House and Senate, the 21st Century Health Information Act of 2005. It is intended to improve the nationwide exchange of medical information—with information assurance (authentication), security and responsiveness all being intended outcomes of the act. It will amend and augment existing legislation such as the Health Insurance Portability and Accountability Act (HIPAA), another e-records intensive bill that continues to reverberate through public agencies. These examples are presented as samples of the regulatory drivers which information management professionals and agency administrators need to monitor, particularly in light of the complexity (and expense) of the required responses they have created.

³ From a Office of Inspector General Audit Report of the Federal Election Commission, March 29, 1976, <http://www.fec.gov/fecig/fecsun.htm>.

The Impact of Legislation

Trends in Legislation

Government agencies face unique challenges as they change from traditional paper processes to new electronic ones. Government processes at the federal, state and local levels are subject to a maze of legislation, regulations, policies, and rules. This maze must be successfully traversed to ensure that a reliable, authentic record is not only created but also maintained for the appropriate period of time.⁴

States and counties have been altering their laws and administrative rules in response to e-government demands for two primary reasons: the increase in both internal and stakeholder demand for ease of access to public information and in order to manage these demands in an environment of shrinking resources—decreased funding and staffing.

Records Laws

Each state and the federal government have a piece of legislation defining what constitutes a “record,” and which records are exempt from public requests for access while many establish a mandate for agency records management. Some of these regulations are termed “public disclosure,” “freedom of information,” and “public” or “open” record laws. Historically, these laws have defined public records by *format* rather than as a result of the conduct of business.

For example:

- Georgia: “Records” means all documents, papers, letters, maps, books (except books in formally organized libraries), microfilm, magnetic tape, or other material . . . made or received pursuant to law or ordinance or in performance of functions by an agency.” (Georgia Statutes 50-18-91[5])
- Kentucky: “Public record or record” means all books, papers, maps, photographs, cards, tapes, disks, diskettes, recordings, and other documentary materials, regardless of physical form or characteristics, which are prepared, owned, used, in the possession of or retained by a public agency.
- Idaho: There are variations, however, as in Idaho where the definition of “public record” reads “includes, but is not limited to, any writing containing information *relating to the conduct or administration of the public’s business* prepared, owned or retained by any state agency, independent public body corporate and politic or local agency regardless of physical form or characteristics.” Idaho Code 9-337§12.” (see also IC 9-337§14 “Writing”)

⁴ In the 1998 edition, Charles Dollar in his “ENSURING ACCESS OVER TIME TO AUTHENTIC ELECTRONIC RECORDS: STRATEGY, ALTERNATIVES, AND BEST PRACTICES” emphasized that the impact of electronic information technology on society would be “similar to what happened with the introduction of writing three millennia ago.”

- New Jersey: New Jersey law defines a record as “any paper, written or printed book, document or drawing, map or plan, photograph, microfilm, data processed or image processed document, sound-recording or similar device, or any copy thereof which has been made or is required by law to be received for filing, indexing, or reproducing by any officer, commission, agency or authority of the State or of any political subdivision thereof, including subordinate boards thereof, or that has been received by any such officer, commission, agency or authority of the State or of any political subdivision thereof, including subordinate boards thereof, in connection with the transaction of public business and has been retained by such recipient or its successor as evidence of its activities or because of the information contained therein.” (47.3.16)

Current trends in records legislation are moving away from this focus on format toward more general language defining records “regardless of format.”

- Virginia: Virginia in the process of revising its records laws in order to eliminate references to specific media. This will facilitate the inclusion of new media as the law recognizes all media.
- Arkansas: According to Arkansas Act 1653 of 2001, An Act to Amend Various Provisions of the Freedom of Information Act, “Public records” definition was expanded to be more comprehensive of record formats. “Public records” is now defined by Arkansas Code as “*writings, recorded sounds, films, tapes, electronic or computer-based information, or data compilations in any form medium, required by law to be kept or otherwise kept, and which constitute a record of the performance or lack of performance of official functions which are or should be carried out by a public official or employee, a governmental agency, or any other agency wholly or partially supported by public funds or expending public funds. All records maintained in public offices or by public employees within the scope of their employment shall be presumed to be public records*”. (Source: AR Act 1653, An Act to Amend Various Provisions of the Freedom of Information Act; 83rd General Assembly)
- Washington: The Revised Code of Washington (RCW) 40.14 defines the term “public records” to include any paper, correspondence, completed form, bound record book, photograph, film, sound recording, map drawing, machine-readable material, compact disc meeting current industry ISO specifications, or other document, regardless of physical form or characteristics, and including such copies thereof, that have been made by or received by any agency of the state of Washington in connection with the transaction of public business, and legislative records as described in RCW 40.14.100.

The differences between these state laws, when combined with the variations in federal guidance and requirements from agency to agency, are another basis for the difficulties that public agencies face when developing records management solutions, especially in an electronic environment.

Retention Laws

- Georgia: Recent legislation passed in 2005 requires the destruction of digital fingerprints collected as part of the drivers’ license record. HB 577(2005), which amends Chapter 5 of Title 40 Official Code of Georgia Annotated, requires the Department of Motor Vehicle Services to “destroy all records of fingerprints obtained on and after April 15, 1996 . . . from applicants for drivers licenses, and identification cards. . .” Legislators cited the privacy concerns and the ChoicePoint⁵ identify theft incident as responsible for this legislation.

⁵ The Atlanta Journal Constitution article series, February, 2005. In particular, refer to February 16, 2005, “Crooks duped data archive,” and February 24, 2005, In Brief: “Privacy issues drive fingerprint measure.”

- *Institutional Research/Research Funding*: Professional misconduct and records retention/data management requirements tied to federal funding supersedes state laws (if agencies want to qualify for funding.)
- *Financial Aid*: U.S. Department of Education establishes rules for the recordkeeping within college and university financial aid offices. Among these rules are requirements for the retention of financial records of students receiving financial aid. These retention periods supersede those established by state law.
- *HIPAA*: The Health Insurance Portability Accountability Act (HIPAA), as cited earlier, has caused tremendous difficulties for state and local agencies as it overlaps state retention laws, public disclosure laws, and FOIA (federal-level requests). The language of this law establishes a state-level option to be more restrictive, but provides no particular guidance on the limits to those restrictions.

There has been legislation passed in the last decade, which has been beneficial to records and information management, supportive of agency recordkeeping and directed towards the long-term improvement of the creation and maintenance of e-records.

- *Sarbanes-Oxley Act*: Sarbanes-Oxley was originally conceived to apply only to business and industry, more specifically, those publicly-owned businesses trading shares via the U.S. Stock Exchange. Applying largely to financial transactions and accounting for those transactions within monthly, quarterly, and yearly financial statements, the law has been interpreted as applying to those public agencies (such as public universities) that operate foundations and report financial transactions to oversight boards of trustees. This stringent accounting of financial transactions has expanded into the administrative records of public agencies giving more weight and importance to the call for records management.

Format Laws

Laws are also being created across the nation pertaining to the format of what is the “official public record” in some states with little regard for existing public records legislation, creating potential legal conflicts for agencies attempting to comply. These contradictory directives further acerbate efforts to improve accountability and efficiency through centralized computing solutions – if formats for public records conflict.

The concept of format being codified around the nation includes not only the format of a record as it shall be made publicly available, but the format in which it may be legitimately stored or preserved. This concept of the format for preservation is a source of major concern for administrators, due to the widely variable characteristics of digital or electronic systems and media available in the marketplace. The inconsistencies between the application of existing federal and international standards by policymakers further tangles the frontline agency response. Bluntly put, most current e-records related laws do not accept or acknowledge the existence of these standards.

- Georgia: Although the legislation failed to pass the Georgia General Assembly, it will likely be resubmitted for consideration or similar legislation proposed next session. HB 453 (2004) sought to give the courts the ability to create and maintain digital copies of records, pleadings, etc., without providing a microform backup of the records. Current policy requires the production of preservation quality microfilm as the backup to the permanent court record due to the long-range life expectancy of the microform media, as opposed to the current relatively short life span of digital formats.
- Idaho: Code has passed allowing the acceptance of digital drawings/schematics and electronic signatures by the state engineer approving them on the construction plans for state-funded buildings. At this time the state does not operate a central state-level digital archive, however, these plans are considered permanent according to another section of Code. A bill heard during the 2005 legislative session sought to require all public records to be made “e-mailable.”
- Oregon: Oregon Administrative Rule Chapter 166, Division 17, provides format standards for digital imaging systems. Included are standards regarding print font sizes on original documents; minimum dot per inch (dpi) resolutions for scanned images; requirements for indexing; and requirements for access and copying capabilities. Many of the requirements are tied to the use of optical disks as a storage media, however, optical disks are seeing decreasing use, underlining one of the dangers of codifying specific, potentially short-lived electronic technologies. In addition, OAR166-17-0080 allows for the storage of records with a retention of less than 100 years, on “optical disks” as long as those images are copied to a new optical disk at least every 10 years. Original records with retentions of longer than 100 years must be retained in the analog media of hard copy or microfilm to ensure the storage media matches the long-term retention requirement. As in Georgia, a bill has been introduced in the Oregon House of Representatives to remove this analog storage requirement (HB 3119). In spite of vocal opposition by the State Archives and the Oregon Association of County Clerks, this bill passed the House by a 55-4 vote, and as of this writing, resides in the Senate.
- New Jersey: New Jersey’s Public law 47:1-11.5 relating to the reproduction of public records allows public agencies, including the secretary of state or the county clerk, register, or surrogate of a county to copy, record, index or transcribe public records by means of photography, data processing, image processing, or other approved means. This provision is subject to compliance with the rules and regulations issued by the Division of Archives and Records Management in the Department of State. These laws further state that documents produced and stored in accordance with the rules and regulations issued by the archives shall be considered a legal substitute for an original document. An additional law, 47:1-12, prohibits public agencies from employing any system for recording, filing, registration or indexing as authorized by R.S.47:1-5 unless the system conforms to the rules and regulations to be issued by the archives.

The differences between these state laws, when combined with the variations in federal guidance and requirements from agency to agency are another basis for the difficulties that public agencies face when developing records management solutions, especially in an electronic environment. In pursuit of cost savings and with the intention of improving access, public records are being placed at risk, in terms of future access.

Disclosure/Access Laws

Beginning with the passage of the federal Freedom of Information Act in the 1970s and related access legislation just prior to FOIA, the federal government initiated an effort to improve the public's access to government records. The intent of these laws was at their inception, and continues to be today, dual-purpose—to clarify what information the public can reasonably expect to have access to while clarifying the agency's role in segregating exempt records from non-exempt (publicly available) records by listing them according to purpose, type or characteristics.

Within the confines of these purposes, disclosure and access laws are beneficial. However, recently agencies at both the federal and state level have sought to erode the premise of these laws as tools to achieve a balance between public access and the need to preserve limits based on security, privacy and proprietary content of the records. What follows are a few examples of both federal and state regulations that have taken this turn:

- *State Open Records and Freedom of Information Act Laws.* Interpretation of open records laws with regard to electronic records frequently result in limits being placed on access—based on disagreement over the definition of a record. For example, a great challenge exists when open records requests are for all of the data in a database or large portions of a database. A database can consist of many inter-dependent components. Such components can include, but are not limited to, the following: software, hardware, program logic, data tables, security tables, access controls, data and table links, mathematical and other logical computations, etc. In some cases, records are stored in multiple databases and on multiple operating platforms, which further complicates the issue. In essence, raw data or records are not always useful without the proper components of the database being linked together or made available.

The challenge then is to provide records as legally required while taking reasonable measures to extract the records requested without (1) compromising system security or (2) providing restricted or confidential information or proprietary information, which may be in violation of licensing agreements.

One new way to overcome these challenges is to make the information available to citizens via the Internet by placing the database(s) online and allowing users to manipulate and search data for themselves.

Another aspect of change in disclosure/access regulations has emerged in the area of legislation specifically responding to “born-digital” records and the availability of technology which to the general public (and legislators) appears to indicate that *all* government records and information should be readily available to the public. This perception has led to new laws in a number of states attempting to push agencies to make a higher percentage of their documentation available to one and all, without filters or restrictions. While these policies create short-term popular support for their authors, they are the source of new requirements that agencies then must find the means to implement, if they are even technologically feasible.

The Uniform Electronic Transactions Act (UETA)⁶, a piece of uniform code offered by the federal government to the states, is an example of this sort of legislation. From time to time, especially in instances involving interstate commerce and exchange, regulatory language is prepared specifically so that the states may adopt it without having to develop their own code. These “uniform codes” serve a vital purpose in situations where regulations need to take effect quickly, to the benefit of the entire nation. UETA was the federal response to the tremendous growth of the Internet and its use to establish binding business contracts transacted using Web-based utilities and sites. Accordingly, in 2000, Congress created a law commonly called “e-Sign” in order to have a single national standard for signatures. To date, approximately 40 states have adopted UETA as it applies to the authentication of electronic funds transfers.

The NCCUSL (National Conference of Commissioners on Uniform State Law) created UETA (Uniform Electronic Transactions Act) for the use of the U.S. government, and each state government. UETA is an act relating to the use of electronic online communications and contracts, electronic records and online signatures. The UETA framework is specifically referred to as the implementation guide in the landmark June 2000 Federal Electronic Signatures in Global and National Commerce Act (e-Sign).⁶

UETA is a good idea, if properly applied. It includes language defining e-records in terms of its purpose and this has led to some contradictions. In the act for example, definitions appear for both an “electronic record” and a “record,” neither of which are identical to most states’ definition of a *public record*. The result of these differences, as states have applied UETA, has been to insert contradictory language into state code. In addition, UETA establishes an administrative preference for an electronic record over a paper one, with rules for handling. Depending on a given state’s adoptive version (states may edit

⁶ UETA was approved at the National Conference of Commissioners on Uniform State Law Annual Meeting, and recommended for adoption in all 50 states, in Denver, July 23-30, 1999. To review the complete UETA see the NCCUSL Web site at http://www.law.upenn.edu/bll/ulc/ulc_frame.htm.

uniform code prior to passage), UETA has been used as the opportunity to codify a preference for a digital “official record” over a non-digital version.

In Idaho, for example, incomplete review of existing legislation prior to implementing UETA has led to conflicts in state code. At the same time, some states have substantially improved the correspondence between their digital capabilities and their laws by enacting UETA following legislative review.

Responding to the Challenge

Trends in Response

The combination of legislative and technological drivers, as well as public demand for improved access to information, has culminated in a variety of state and federal responses. Trends have emerged among these responses to the challenge of e-records. Below are a few examples for each of several categories of response.

Avoiding the Issue

A typical government agency response, at least initially, may be to avoid the issue entirely and manage records by neglect. To the challenge of managing electronic records these agencies respond “If I don’t destroy records, then I am in compliance with the law, right?” This response, while technologically feasible, does not take into account the risks being run by the agency in refusing to manage its information resources. Such agencies are refusing to acknowledge and plan for the management of information in compliance with statutes of limitations, auditing agencies, grant organizations, and federal and state oversight requirements. Records management is risk management. Agency administrators should be made aware of the role of records management in an agency’s risk management regime. They also should be cognizant of the penalties for non-compliance – loss of funds, ineligibility for research and other grants, fines, and stricter oversight.

An example of response to e-records has arrived in the legal environment of both business and public agencies. It is being reflected in our system of courts and hearings through the emerging practice of e-discovery. The tendency to avoid complying with the requirements of e-records can now take the agency CIO or information manager into the legal realm as their records, once requested by deposition in a paper form, are increasingly *required* to be produced for litigation in their original digital format. Discovery orders spell trouble for an agency or state-funded vendor as they open the door to issues of authenticity (can you prove no one altered this e-mail?), information assurance (who had access and when),

production (all property tax evaluation records for 2001 for commercial properties held by a specific corporation), format (some months are in MS Excel, while others are in a proprietary format), and expense. For more on this developing set of issues, please refer to the NECCC white paper, *Effectively Managing the Discovery of Electronic Records*, from the 2004 NECCC Annual Conference.

Affirmative Responses

Other trends in response are more positive. They involve the creative and applied reactions of many state and local agencies to their constituents' demand for electronic access to public records. Many states have made advances in converting to electronic versions of commonly requested public records, such as property tax, voting records, and budgetary performance reports. Some public agencies have made impressive changes in the mode and manner of presenting and collecting their public information. Tax preparation at the federal, state and local level is a prime example of improved service through e-records creation. Many states now provide property valuation and re-negotiation of taxes in an online environment. In the area of public safety, the availability of information about offenders and their currently reported residence is increasingly electronic in format. Birth and death records are becoming more available. Perhaps the most notable impact of e-records and one of the most technology and e-resource-intensive has been the advent of online global information systems-based or "GIS" Web sites for the states. The *Digital Atlas of Idaho*⁷ is one example. Built upon GIS information gathered as a public land management tool for state and federal agencies, the atlas was developed into an education tool targeting K-12 physical science and history teachers. All 50 states and the territories of the United States now publish Web sites, or portals, to provide access to their agencies. It is because of the increase in the availability of information in electronic formats that a variety of new privately-administered Web sites have emerged for the public's use, such as PublicRecordFinder.com.

The trends in response just noted are very much what the public has asked for, but many agencies are still waiting for the tools (and the funding) to respond to constituent demands. While some states have impressive e-resources available in some areas of their government, such as a state portal that any tourist or entrepreneur can touch upon, at the county and local levels things remain very "twentieth century." Paper recordkeeping has not gone the way of the passenger pigeon, and at the same time earlier e-solutions are aging, adding legacy systems to the e-government technology mix.

Additional responses have come from state archives and records programs, which actively monitor and comment (oftentimes provided unwanted comment) on the unfunded recordkeeping mandates included within proposed e-government legislation. As these programs have gained experience, they have had increasing success in raising awareness of the unintended consequences of the desire to have more

⁷ Digital Atlas of Idaho, <http://imnh.isu.edu/digitalatlas/>.

government information available online through Web sites and portals. As identity theft has increased, archives and records programs are being included in the legislative process to review and ensure that e-government proposals actually benefit the citizen rather than cause potential harm.

While public demand for e-access has increased, so has administrative demand. For instance, it appears in the form of requirements for electronically compiled results to meet statutory deadlines, for online reporting to secure federal funding. The implementation of federal sites such as egrants.gov is a case in point. Soon, if you are a state or local agency seeking federal grant funds, it will only be possible to request them using an online site for submission. While for the majority, this will be an acceptable turn of events—however, consider this: there are municipalities in this nation that still do not have Web access.

What has emerged are widening gaps between the “haves” and the “have nots” in e-government. The public sector—state, county and local governments around the nation—are not functioning on a level playing field. While there are many contributing factors, of particular significance has been the differing fiscal environments from state to state. Even within states, funding for e-government remains inconsistent following old models of distribution for tax dollars based on population, without consideration for the “government without walls” environment that is e-government today. At the same time, political will has played a large role in the advances of e-government across this nation. While requirements from the highest levels of our government are increasingly based on the assumption of the availability of the most recent technologies at every level of public administration, there remains a lack of consistency in the administration of e-government both inter- and intrastate.

Trends in Technology

Technology has been pointed to as if it is the cause of e-government problems. In fact, technology has in it the roots and resources for resolving many e-government dilemmas. It will be through applied, proactive and forward-thinking approaches to digital information technologies that public agencies will leverage shrinking resources into improved access. What is being asked for—increased public accessibility and speed of retrieval plus interoperability—will occur through interagency data sharing and mining, through systems integration, cross-platform compatibility (my database can share information with your database because they speak a common language) and with standards implementation. These are the trends in technology that are essential to resolving the current issues in administering e-government.

Consider e-government for a moment in light of the public administration concept of “market failures”. A market failure is when public (stakeholder) and private (corporate) values differ, so that the marketplace is unable to provide an efficient (read “profitable”) solution. Public information is a public good. The concept of public good is fundamental to public administration:

- Public goods are goods that can benefit everyone, and from which no one can be excluded.
- Public goods have two key characteristics:
 - o One person's consumption of the good does not prevent others from using it.
 - o People cannot be prevented from using the good.⁸

E-Discovery and New Developments

One trend in technology is actually seen in the application of the law. As discussed above, those public agencies unwilling or unable to comply with directives to produce and maintain records in electronic format may find themselves in court defending their actions. More and more, the courts are requiring the product of evidence in digital format, particularly where the records are “born digital.” Recent changes in court practices have now gone into the rules of evidence. The Committee on Rules of Practice and Procedure of the Judicial Conference of the United States held a public hearing “On Proposed Amendments to the Federal Rules of Civil Procedure” on Friday, February 11, 2005.⁹ During these hearings, ARMA International President David McDermott, CRM, testified regarding proposed amendments to the Federal Rules of Civil Procedure involving electronic discovery. “ARMA was one of 38 organizations and individuals scheduled to testify before the 16-judge panel in Washington, D.C., that day. When specifically asked about e-mail retention policies, McDermott stressed that the emphasis should be on the content of the messages, not the application. He also referenced ... ISO 15489, noting that it applies to all relevant business records, including electronic records.”¹⁰

It should be noted that the Federal Rules of Evidence are the superior rule of law in many instances involving legal matters between the states. In addition, historically a substantial number of states have adopted into their own legal codes the federal evidentiary practices expressed in the Civil Procedure. In Idaho, for example, the public records law is a subsection within the state's rules of evidence. Changes within the Civil Procedure will have far-reaching effects upon the expectations of the legal system as regards e-records created by state-funded entities.

⁸ David Popp, Lecture #3, “Market Failures,” Public Administration 776, Economics of Science and Technology, Spring 2005.

⁹ *Committee on Rules of Practice and Procedure of the Judicial Conference of The United States* Hearing transcript: <http://www.uscourts.gov/rules/e-discovery/CVHearingFeb2005.pdf>.

¹⁰ ARMA International **News**, “ARMA President Testifies Before Judicial Committee on Electronic Discovery”
Date Posted: 02/22/2005 | Date Updated: 06/30/2005 <http://www.arma.org/news/index.cfm?NewsID=269&Type=Industry>.

Technology and Records Management

Technology may be defined as “the available knowledge and techniques to produce goods and services.”¹¹ It allows us to efficiently utilize our resources and assists us in managing our services to meet the goals and missions of our organizations. In records management, technology can assist us in effectively managing our records and information as business assets. Recently, the trend in technology has been to manage the content, the information itself, rather than the format, thus strengthening a trend towards an integrated approach to resource management. Managing our information resources as business assets includes having standards and processes in place to properly create, classify, retain, archive and dispose of records appropriately. Government organizations are seeking to discover what the records management technology trends are that will meet our records management requirements. They need guidance and information that will help inform records management technology policy, process, and system choices so that efficient practices are easily understood, implemented and sustained by individuals who do not have a technology background. Some of the technology related areas that public organizations must keep in mind and address are:

- Identifying the strengths and weaknesses of current technology offerings that may or may not meet our records management needs.
- Identifying opportunities for improvement in the area of records management that can be addressed or clarified by technology trends.
- Including records management as an important aspect of business management that needs to be planned for and addressed in strategic planning.
- Measuring and evaluating the value and performance of records management technology and its contribution to the successful management and reduced risk to the organization.
- Learning from and collaborating with other government entities as we seek to discover, purchase and implement various forms of technology systems to effectively manage our records and information as business assets.

To this end, a list of current technology systems that, according to Gartner researchers, are the leaders and visionaries in enterprise content management is included in the appendix. This spreadsheet also describes how effectively these technology leaders meet our records management needs. See Appendix A (Excel Spreadsheet).¹²

¹¹ Jo Bryson, *Managing Information Services - An Integrated Approach*, 1998, Gower Publishing Limited.

¹² Spreadsheet can be found in Appendix A. This spreadsheet is not intended as an exhaustive list but seeks to identify the leaders in the field and rate their effectiveness at meeting records management needs. Information compiled from sources available through Gartner, DoD, and NARA.

Unifying Our Approach

Other nations have unified their approach to e-government. Take a look at the Australian model,¹³ which required massive cultural change (agency-level) throughout the government and has taken more than eight years to come to fruition. Now, with the acceptance of ISO 15489, the generic version of the Victorian (Australian) standard, the European Union has embarked on its adoption. The American private sector has already adjusted to the notion that international competitiveness equals becoming ISO 9001 and 13000 certified just to be able to offer their products overseas. It may well be that communication on the international stage for this nation may become dependent on this newer standard for information practice and management.

This work group does not attempt to propose any particular initiative or approach that the United States should take to resolve e-government and e-records issues. However, this is a general call for agency administrators to increase their awareness of the fact that as the United States seeks to retain its global position, and state governments continue to compete for shrinking resources, e-government will increasingly emerge as the pivotal factor in the success or failure of public programs. Technology now drives institutional change for many agency-based operations, largely because of the unwillingness of administrators to engage in a dialog about such systemic-sized concepts as enterprise resource programs and document management systems. At the very least, an awareness of standards now in use in the private sector where these technologies are designed will benefit public planners, CIOs, and IT managers.

International and National Standards

The promulgation of national and international standards and their adoption by federal, state and local government provides a basis for dealing with changes in technology that create recordkeeping problems. While standards might be considered a form of regulation, most of them have a positive effect on records keeping. Notable efforts in this area are:

- ISO 15489, Information and Documentation – Records Management: Adopted by the International Standards Organization in October 2001, this standard provides a common set of requirements for record keeping systems, regardless of technology, or the type of organization involved. ISO 15489 addresses the full range of records management issues, including issues of reliability, authenticity, and integrity that are not commonly addressed in current regulatory approaches, yet are critical to effective records keeping in electronic environments. Adopting this common standard creates greater

¹³ A reference to the Victorian Electronic Records Strategy, Public Records Office Standard PROS 99/007 and related documents. Subsequently adopted as the International Standards Organization ISO-15489 with minimal vocabulary changes (to neutralize the 'Aussie-speak').

assurance that all records keeping requirements are incorporated in system design and funding, not just some. This improves the use of resources as it leads to the greater likelihood of consistent implementations across entities, where gaps in any portion of such shared systems can impact the effectiveness of the whole. Such consistency improves the transparency and accountability of the organizations involved, making it less likely that records information is lost, and avoiding expensive recovery efforts.

- ISO/TC171/SC2 Document Management Applications: This standard also recognizes document management system integration of scanned and “born digital” objects in the Web environment, clarifying issues regarding processes or related systems such as imaging technologies, Optical Character Recognition or OCR, workflow, Enterprise Report Management or ERM (formerly Computer Output to Laser Disk or COLD), Computer output Microfilm or COM; and Electronic Document Management Systems or EDMS.
- DoD 5015.2-STD: This Department of Defense standard provides implementing and procedural guidance on the management of records in compliance with federal and state guidelines. It sets forth mandatory baseline functional requirements for Records Management Application (RMA) software used in the implementation of records management programs; defines required system interfaces and search criteria to be supported by the RMAs; and describes the minimum records management requirements that must be met, based on the requirements of DoD 5015.2-STD (issued June 2002) and recommended for use by all federal agencies.¹⁴ Use of this standard is almost mandatory for a state to comply with the requirements of UETA. In addition, the Department of Defense’s Joint Interoperability Test Command (JITC) manages an up-to-date list of software that it has judged as compliant with the standard. Kentucky, and presumably other states, recognizes this standard in its Information Technology Architecture, which serves as the basis for records management product selection. Products and applications compliant with this standard are given preference by the GSA for purchase with federal funds.
- AIIM Imaging Standards: In the past 15 years, AIIM has emerged from its focus on micrographics issues to lead the discussion on imaging standards and related “document management” systems. A recently published AIIM standard has been adopted by the International Standards Organization as ISO/TC171/SC2 Document Management applications, the description of which is discussed earlier in this document.
- IEEE and ANSI System Specification Standards: These technical standards have some effect on the interoperability, longevity and usability of media, software and electronic devices. These standards must be considered in the design and purchase of CDs, DVDs and other media; software applications; and various electronic devices to ensure the readability and transportability of

¹⁴ Refer to National Archives and Records Administration, Bulletin 2003-3, endorsing the whole government use of DoD 5015.2-STD (June 22, 2005 located at <http://www.archives.gov/records-mgmt/bulletins/2003/2003-03.html03.html>). The standard can be found at www.archives.gov/records_management/initiatives/dod_standard_5015_2.html). The Web site that manages the RMA certification is <http://jitic.fhu.disa.mil/recmgt/>.

information between systems. Those failing to monitor the adoption of such standards could find themselves in much the same position as those agencies that purchased 14-inch optical platters in the 1980s. Such platters were considered cutting-edge in the imaging industry in the late 1980s until the development of smaller discs for the music industry that later became industry and ISO standard.

Case Studies

General Records Retention Law in Arkansas

An Arkansas Case Study – Information provided by Drew Mashburn, Office of Information Technology in Little Rock, Arkansas

Overview

The State of Arkansas provides a good case-study of a state that has a mature disclosure law (Arkansas Freedom of Information Act), but lacks a general retention law requiring records be kept in state government. The widespread use of electronic records (and e-mail) has underscored the need for an effective record retention schedule within this state government.

History of Past Attempts to Establish Records Retention Law in Arkansas

Currently, there is not a general requirement to retain records in Arkansas' government. The Freedom Information Act of Arkansas (FOIA) covers disclosure of records but does not address retention requirements. Though FOIA gives citizens a right to inspect public records, it does not require that records be kept.

In the past, several drafters of records retention legislation have proposed amending the state's FOIA to include retention statutes. Conceptually there is a problem with converting the FOIA into a retention statute. Historically both at state and federal levels there has been a clear distinction made between FOI statutes and retention statutes. FOI is a disclosure law and was never intended to address retention periods.

Arkansas has attempted to enact such a retention schedule three times in the past but has been unsuccessful due to lack of funds or support. In the mid-1970s, an act to create an Office of Records Management was established, but it was repealed in 1989. A second attempt was adopted in 1995. However, the 1995 act, like its predecessor, went unfunded. It was repealed outright in 2001.¹⁵ In 2003, the General Assembly tried to revive statewide records management by empowering the executive chief

¹⁵ 2001 Ark. Laws Act 1252; see Watkins & Peltz, *supra* note, at 23-24 n.7.

information officer (ECIO) to promulgate rules governing records management.¹⁶ House Bill 2681 called on the ECIO to develop records management procedures and retention schedules for records “in any medium” in consultation with the heads of state agencies, i.e., state departments, boards, and commissions.¹⁷ A general schedule would have pertained to records “common in most state agencies,” and regulations would advise agencies in the development of internal schedules.¹⁸ House Bill 2681 passed the House 94-0 with six abstentions, and the Senate 35-0, but was vetoed by the governor on April 29, 2003. Governor Mike Huckabee in his veto message described the bill as “laudable” in intent, but “an onerous unfunded mandate” in a time of “fiscal distress.”¹⁹ According to the governor, House Bill 2681 did not “adequately address the financial or logistical issues surrounding the records retention questions.”²⁰ Governor Huckabee’s veto did not signify a rejection in principle of a records retention program for Arkansas. To the contrary, the Governor, by letter of May 5, 2003, charged the Office of the Executive Chief Information Officer (ECIO Office) with “defining rules and regulations for records retention.”²¹

The Arkansas Office of ECIO took the lead role of facilitating a workgroup toward preparing a general record schedule. A records retention program could not succeed without the commitment of the state agencies to which it would apply, so the Office of ECIO set about assembling a workgroup of representatives and experts from a broad range of state agencies, as well as concerned organizations from both the public and private sectors. In the end, the Record Management Cross Functional Workgroup included 21 representatives from 18 state agencies, seven partners from the private sector, and six partners from the public sector.

The final proposal for a retention schedule, along with the report of the workgroup, was transmitted to the governor in January 2005, in time for the 2005 legislative session. The result of the 2005 session was Act 918, An Act Concerning the Retention of Public Records by State Agencies. Much of the success to Act 918 (2005) passing out of House and Senate sessions was due to the preliminary work done in response to the governor’s request.

Act 918: An Act Concerning the Retention of Public Records by State Agencies

- Addresses the need for a general records retention law to preserve records that are *commonly found in most* state agencies.
- Agencies shall comply with the rules promulgated upon the earlier of: (1) July 1, 2007; or (2) the line-item appropriation to the agency in question of funds to comply with the act.

¹⁶ 2003 Ark. H.B. 2681

¹⁷ *Id.* §§ 3(b), 4.

¹⁸ *Id.* § 4(c)-(d).

¹⁹ WATKINS & PELTZ, *supra* note, at 24 n.73 (quoting Governor’s veto message).

²⁰ Letter from Governor Mike Huckabee to Executive Chief Information Officer Carolyn Walton, May 5, 2003, at 2 (copy on file with author) [hereinafter Governor’s Charge].

²¹ *Id.* at 1

- Applies only to records created by each state agency after the date the state agency shall comply with the Record Retention Rule promulgated.
- *25-18-604. Retention requirement.*
 - o (a)(1) The Executive Chief Information Officer shall direct the development of rules and guidelines for the retention of public records commonly found in most state agencies.
 - o (2) The CIO Council shall provide review and advice on the rules and guidelines developed pursuant to subdivision (a)(1) of this section.

Timeline

- ♦ Before January 1, 2006, the Office of the ECIO will promulgate a general record retention schedule.
- ♦ The date by which agencies must be in full compliance with the requirements of the act and retention rules – July 1, 2007 or when the agency receives appropriation.
- ♦ Records created before the effective date would not be subject to the rule and act.

Challenges Arkansas Faced

- What constitutes “communication” or “correspondence” records of an agency?
- When is an e-mail a record subject to retention? How long can it practically be retained?
- What is the cost of retaining common agency records?
- State Archives has run out of record space.
- Records management education/awareness.

NOTE: Contributions to this draft came from RICHARD J. PELTZ & *UALR LAW REVIEW*
FOR USE BY ARKANSAS GOVERNMENT

Regulatory Impact of E-Records Management Decisions: A Library of Congress Case Study (Library of Congress Collaboration for Preservation of State Government Digital Information)

Background

In the spring of 2005 the U.S. Library of Congress convened a unique national forum for states and territories to discuss digital preservation needs. The aim of this forum was to enable the Library to hear from state government practitioners with responsibility and interest in digital preservation to help guide investments made by the Library in the preservation of at-risk state government digital information. The forum was a continuation of the Library's effort, under its National Digital Information Infrastructure and Preservation Program (NDIIPP), to serve as a change agent for digital preservation through partnerships

with stakeholders. Additional information on NDIIPP can be found at <http://www.digitalpreservation.gov>. The forum allowed the Library to collect experiences, concerns, perspectives, and ideas relevant to potential inclusion of the states within the NDIIPP national network. This collection of input now is being used by the Library to leverage existing partnerships and build new ones that will result in new preservation strategies and successes.

The challenges in preserving digital materials are affecting all governments no matter their size and no matter their level – federal, state or local. State governments are grappling with the same issues that other producers and keepers of digital information share: How to select from and preserve the ever-mounting volume of electronic information that documents cultural, historical, demographic, financial, legal, political and other topics.

According to a 2003 American Association of Law Libraries study, “State-by-State Report on Permanent Public Access to Electronic Government Information,” “The need to provide permanent public access to and preserve electronic government information is challenging and as yet unmet in any comprehensive manner at any level of government. ... [This] has resulted in the loss of huge amounts of electronic information during the past decade.”

The Library of Congress, along with the Center for Technology in Government, University at Albany, held three one-day workshops in Washington, D.C., in the spring of 2005 to assess states’ interest and current work in digital preservation, the types of issues they face and how these commonalities of interest can be leveraged to advance the NDIIPP collaborative partnership network. Forum participants included state-level librarians, archivists, records managers, information technology officers, and other professionals.

All 50 states, the District of Columbia, and three territories sent teams to one of three workshops. In all, 67 librarians, 53 archivists, 13 records managers, and 20 IT professionals were in attendance. Each workshop had a geographically diverse mix of between 14 to 19 states and at least one territory represented. The majority of teams were comprised of three individuals. A series of large and small group facilitated discussions and exercises were used to obtain information from states in the following areas:

1. Top concern related to the preservation of state government digital information.
2. Major state government information digital preservation success story.
3. The topic about which each state would most like to network with others states.
4. The state government digital information considered to be most at-risk.
5. How can states extend or build partnership networks?
6. Preservation-related roles the states and the Library should fill and not fill.

Results

A lack of funding for digital preservation was, not surprisingly, a common worry. A Californian described her state's budget as being "in crisis," and she hoped that she would learn "how to build political capital" for digital preservation.

One of New Jersey's successes was its ability to generate \$27 million for digital preservation through a property-document tax surcharge. Oregon said it had managed to receive the strong backing of the governor and legislature to build a digital repository. Illinois said that although "digital preservation has not become part of the bureaucracy yet, we have gotten into the state budget as a line item."

Another major concern for many was the "islands" of digital information that are being created by agencies such as courts and penal systems. These agencies often pay little heed to the need to preserve their records for the long term.

Although a representative from the U.S. Virgin Islands bemoaned the fact that "we are behind the power curve, in an embryonic stage," he was nonetheless encouraged by the fact that "we can build it [a digital repository] right the first time."

The most-mentioned at-risk digital information included databases, Web sites, e-mails of lasting value and "records islands." Many states indicated an interest in establishing Web sites that offer cultural and historical information already in digital form but not easily accessible.

Large numbers of participants expressed frustration within their state bureaucracies in making others aware of the importance of preserving the electronic information they oversee. "We need a champion," said one person, "who will help us educate others. Most people don't understand why we need this."

Several attendees said that in some ways they feared their own success in spreading the word on the urgency to save at-risk information. "We don't want this to become an unfunded mandate," said one.

The role for the Library? "We want the Library to continue to facilitate our partnerships with other states so that we can learn from each other and not reinvent the wheel." "I hope you will reconvene these groups. No one has put this group together before."

Clearly, the states want a continuing relationship with the Library. The states also emphasized the importance of working with other relevant federal entities with an interest in digital preservation.

A sentiment that was repeatedly expressed: "We want to keep the conversation going."

Next Steps

Based on the success of and results from this series of workshops, the Library of Congress is considering a number of next steps to maintain and build upon the momentum generated by this initial collaboration. The Library recognized the significant value of bringing together librarians, archivists, and other groups with a stake in digital preservation. These groups clearly recognize that they need to work together, but they often don't get the opportunity to meet on neutral ground and focus on the issue of digital preservation. The Library intends to explore ways both to enable the states to continue bringing these groups together and to facilitate communication and community building through the sharing of lessons learned and best practices specific to digital preservation.

Washington State and the Challenge of Electronic Records Management

Washington State Case Study – Information provided by the following from Snohomish County, Washington: Bob Terwilliger, auditor; Carolyn Ableman, chief deputy auditor; Lisa Goldsworthy, auditor's recording manager; and Val Wood, DIS administrative manager.

Overview

The State of Washington provides an excellent case study of an innovative, highly-successful model for enabling effective electronic records management programs at the county level.

In 1989, in response to the lack of funding for local government electronic records programs and the need to develop solutions for long-term preservation of historic documents, the Washington State legislature passed into law a funding model to support preservation and electronic records programs at the county-level. (RCW 36.22.170)

Background

Several key factors influenced the creation of this legislation:

- 1) *Lack of funding:* During the 1980s, auditors' recording divisions across the state were grossly underfunded and overburdened with the workload required to record and index documents in the counties. While information technology existed to alleviate some of these challenges, the lack of funding forced many counties to continue recording and indexing documents manually in the form of bound volume/page books. In some counties, microfilm or microfiche was used for preservation and retrieval; while others continued to rely on paper copies for retrieval. From a business perspective, the disparity of records management capabilities across Washington State proved very frustrating for both banks and title companies which relied on access to county-recorded documents in their

conduct of daily business transactions. Banks and title companies alike were continually upgrading their own technology to keep up with the latest trends in electronic records management, and often had to deal with local governments that had no technology at all.

- 2) *Need for preservation:* During this period, it was also becoming very apparent to county auditors and those interested in the preservation of cultural heritage that the counties required more effective strategies for preserving historical documents. Using paper in the form of bound volume/page books, instead of being able to afford any preservation methods led to serious deterioration of original records, which were used on a daily basis. The need to preserve the auditor's records, which are defined by the Washington State Retention Schedule as permanent and archival in nature, and other county historical documents, many of which were showing signs of deterioration, became imminent. Moreover, in some counties, historical documents were being stored in less than desirable conditions due to both the lack of funding for suitable archiving and the increasingly large volumes of paper, which was causing other storage problems.

Local Government and State Leadership

Faced with the lack of personnel and technology to not only effectively record and index critical government and citizen documents but also to preserve this information for the long-term, county auditors came together to develop a solution. Using the Washington Association of County Officials as a collaborative forum, the auditors and other county officials agreed a strategy that empowered each of the counties to fund their own historical records preservation programs was needed. In addition, they also recognized the importance of a funding model that provided a mechanism to support smaller and medium-sized counties that lacked the population to generate enough money to acquire the technology and other resources needed for records management and historic document preservation. This small group worked closely with the state legislature to craft such a model. Washington has continued its charge forward into the forefront on electronic records preservation by building a digital archives. It is the mission of the digital archives to preserve and make accessible the electronic records for both state and local government agencies in Washington State. The Digital Archives opened in October 2004 and is attracting worldwide attention.

The Legislation

Funding legislation was passed by the Washington State Legislature in 1989, the year of Washington's Centennial. The legislation is referred to by a variety of names: Centennial Document Preservation Fund; Auditor's O&M Fund; and Historical Document Preservation Fund.

In accordance with the legislation, each county auditor is required to charge a specific surcharge for each document recorded. The funding, originally \$2.00 per document, was increased by the 2005 legislature to \$5.00 with \$1.00 to be deposited into the county general fund to be used at the discretion of the county commissioners to promote historical preservation or historical programs, which may include preservation of historic documents. With the \$3.00 increase in 2005, a few document types were exempted from the increased fee.

One distinguishing characteristic in the law is a “sharing” requirement. This requirement has been a highly effective way for small and medium-sized counties in Washington to secure enough funding to accomplish wonderful projects that would otherwise lay dormant.

Per this sharing requirement, each county transmits 50 percent of the remaining revenue generated through the surcharges explained above to the state treasurer. The state treasurer then distributes these funds to each county treasurer within the state based on the following formula: one-half of the funds available shall be equally distributed among the 39 counties; and the balance will be distributed among the counties in direct proportion to their population as it relates to the total state's population based on the most recent population statistics. The state treasurer sends each county its share in July of every year.

Each county treasurer places these funds in a special account titled the auditor's centennial document preservation and modernization account. This money is to be used solely for ongoing preservation of historical documents of all county offices and departments and shall not be added to the county current expense fund.

Finally, the remaining 50 percent is retained by the county auditor and deposited in the auditor's Operation and Maintenance Fund for ongoing preservation of historical documents of all county offices and departments.

The legislation, RCW 36.22.170, was amended in the 2005 legislative session. The new changes took effect on July 24, 2005. The bill number is HB 1386, and to see a copy of it and the new language, go to www.access.wa.gov and search by the RCW and the bill number. Also, you can find the sharing distribution formula in RCW 36.22.190.

Electronic Records Management Projects Funded

As a result of the legislation and the subsequent funding available to the County Auditor's Recording Divisions, 37 of Washington State's 39 counties have procured and are using electronic document recording and imaging systems for the storage and preservation of recorded documents. In addition, many counties have utilized the funding for electronic records management (imaging) systems projects

for other county documents meeting the historic requirement, including the purchase and maintenance of viewing software which allows the development and launching of recorded documents on the Internet; provision for other county departments to view the auditor's documents on the Intranet; development of search applications (capable of searching by all types of information), coupled with a viewing software and providing the ability to launch the records by the county; scanning of assessor's timber grading maps; conversion of all real estate excise tax affidavits to digital format for treasurer office's; and the purchase of large format scanners and printers which are networked to other county departments.

Other Legislation

In addition to the O&M legislation discussed above, the funding for the new digital archives was generated by an additional \$2.00 fee set by the Washington State Legislature in 2001 and collected by county auditors on all recorded documents. The fee is for State Archives and Local Government Records Management. One dollar is solely for the purpose of preserving local government records, security microfilm, grants and the like. The other dollar is the funding for the digital archives. When the financing for that capital project is completed the revenue generated by the dollar now dedicated to the building fund will be split 50/50 between operational costs for the digital archives and the O&M fund sent to the state treasurer's office for later distribution pursuant to the sharing formula in the statute, increasing the O&M fund of each county.

Resources and Guidelines

(All Internet links are current as of August 2005.)

While many federal, state and local agencies have developed guidelines, which outline best practice for recordkeeping, one useful compilation of these methods came out of the Sedona Conference. *The Sedona Guidelines: Best Practice Guidelines and Commentary for Managing Information & Records in the Electronic Age*, a companion piece to *The Sedona Principles on Electronic Document Management*, addresses a wide-ranging number of issues including records management, legal issues, metadata and even data archives in a thoughtful manner that blends consideration of statutes, standards and common practice. The Web address for this resource appears below.

NECCC Resources

National Electronic Coordinating Council (NECCC) whitepapers, www.ec3.org.

- *Challenges in Managing Records in the 21st Century* (2004)
- *Effectively Managing the Discovery of Electronic Records* (2004)
- *Creating and Maintaining Proper Systems for Electronic Record Keeping* (2002)
- *Management of Electronic Transactions and Signed Records* (2002)
- *Managing E-Mail* (2002)
- *Citizen Expectations for Trustworthy Electronic Government: An Assessment and Framework for State Policy Makers and Information Technology Providers* (2001)
- *Electronic Records Management Guidelines* (2001)

Standards

- ISO 15489-1: Information and documentation -- Records management – Part 1: General
- ISO/TR 15489-2: Information and documentation -- Records management – Part 2: Guidelines. The International Standards Organization standard for records management— ISO-15489 represents a substantial document intended for application from the highest levels of a government or agency to its lowest (desktop) levels. It constitutes a substantially different approach to information management, being truly holistic. As such, it is not for the faint at heart, but is the seminal resource for systems planners and administrators seeking to establish cross-platform compatibility, data migration assurance and information security. It is also an excellent resource for those seeking to inform themselves about the interactive nature of e-records as they relate to a myriad of resources, including *paper records* and *legacy computer systems*. Originating almost in its entirety as the **Victorian Electronic Records Strategy (VERS)** (PROS 99/007), from Australia, ISO 15489 has already been adopted by the United Kingdom. Now at Version 2 (in 2003), the VERS is readily available at

http://www.prov.vic.gov.au/vers/standard/pdf/99-7_ver2-0.pdf . The following text from the VERS²² sums up the value, significance and insight combined in both of these over-arching standards:

o “Victorian Electronic Records Strategy

The VERS approach provides a framework within which it is possible to capture and archive electronic records into a long-term format that is not dependent on a particular computer (hardware or software) system.

The VERS model considers that **records exist within folders (files)**. It supports the aggregation of data (information) relating to a particular topic and advocates the management of this information at the file level rather than the individual record level. This is a continuation of the approach taken to records and files in the paper environment.

The approach relies on the use of published ‘standards’ for software and storage (e.g. XML – eXtensible Markup Language – a text-based standard) rather than the use of specific applications or programs which may change over time and become incompatible with requirements for recordkeeping.

VERS is sufficiently flexible to support any electronic record in any format. The strategy is primarily focused on providing long-term preservation of electronic records, but day-to-day use of electronic records is also supported.

Recordkeeping requires a long-term approach, but computer systems and applications change or become obsolete very rapidly. Several issues have been identified as an impediment to the long-term management of electronic records.”

- ISO TS 23081-1: Metadata for Records A guide to understanding, implementing, and using metadata within the framework of ISO 15489, *Information and Documentation — Records Management*. It addresses the relevance of records management metadata in business processes and the different roles and types of metadata that support business and records management processes. This technical specification sets a framework for creating, managing, and using records management metadata and explains the principles that govern them. It does not define a mandatory set of records management metadata to be implemented since these metadata will differ in detail according to organizational or specific requirements for jurisdiction. However, it assesses the main existing metadata sets in line with the requirements of ISO 15489.
- DoD 5015.2-STD, Design Criteria Standard for Electronic Records Management Software Applications, Department of Defense, June 2002.
http://www.dtic.mil/whs/directives/corres/pdf/50152std_061902/p50152s.pdf Also:
<http://jirc.fhu.disa.mil/recmgt/index.html>. This is the Department of Defense standard for recordkeeping functionality. Application of these criteria and the associated DoD-certification of e-records management application products results in compliance with the relevant provisions of the Federal Records Act and NARA regulations with respect to the creation, maintenance and use, and disposition of Federal records. The listed Web site includes links to approved vendors/products.

²² PROS 99/007 (Version 2) Management of Electronic Records, July 2003, Page 8. http://www.prov.vic.gov.au/vers/standard/pdf/99-7_ver2-0.pdf.

National Policies

- NARA's records management guidance

http://www.archives.gov/records_management/policy_and_guidance/policy_and_guidance.html

See particularly:

- o Electronic Records Management Initiative <http://www.archives.gov/records-mgmt/initiatives/erm-overview.html>.
- o Records Management Initiatives <http://www.archives.gov/records-mgmt/initiatives/rm-redesign-project.html>.
- o NARA's Electronic Records Archives (ERA) http://www.archives.gov/electronic_records_archives/index.html.
- Library of Congress, National Digital Information Infrastructure and Preservation Program (NDIIPP) <http://www.digitalpreservation.gov/>
- Legal Considerations in Designing and Implementing Electronic Processes: A Guide for Federal Agencies <http://www.usdoj.gov/criminal/cybercrime/eprocess.htm>
- UK policy <http://www.nationalarchives.gov.uk/recordsmanagement/advice/>
- Canadian policy http://www.collectionscanada.ca/information-management/06_e.html#recordsmgmt
- Australian Electronic Record Keeping <http://www.naa.gov.au/recordkeeping/er/summary.html>
- ICA publications on Electronic Records http://www.ica.org/biblio.php?pkeyword=electronic+records&planguage=&psubject=0&ppublication_year=&plangue=eng
- The following standards are available from ARMA International (ANSI is the American National Standards Institute):
 - o ANSI/ARMA 9-2004 Requirements for Managing Electronic Messages as Records
 - o ANSI/ARMA 8-2005 Retention Management for Records and Information
 - o ANSI/ARMA 5-2003 Vital Records Programs: Identifying, Managing, & Recovering Business-Critical Records

Reports

1. Trusted Digital Repositories: Attributes and Responsibilities, Research Libraries Group, May 2002. <http://www.rlg.org/legacy/longterm/repositories.pdf>
2. Challenges in Managing and Preserving Electronic Record, General Accounting Office, June 2002. <http://www.gao.gov/new.items/d02586.pdf>
3. Authenticity in a Digital Environment, Council on Library and Information Resources, May 2000. <http://www.clir.org/pubs/reports/pub92/pub92.pdf>
4. Electronic Records and the Law: Causing the Federal Records Program to Implode, PhD Dissertation of Mary Rawlings-Milton, April 2000. <http://scholar.lib.vt.edu/theses/available/etd-04202000-13400008/unrestricted/Erecs.pdf>
5. Learning about Information Technologies and Social Change: The Contribution of Social Informatics, Rob Kling, 2000. <http://www.indiana.edu/~tisi/readers/full-text/16-3%20kling.pdf>

6. Risk Management of Digital Information: A File Format Investigation, Council on Library and Information Resources, June 2000. <http://www.clir.org/pubs/reports/pub93/pub93.pdf>
7. The Sedona Guidelines: Best Practices Addressing Protective Orders, Confidentiality and Public Access in Civil Cases (Revised April 2005 Public Comment Version) <http://www.thesedonaconference.org/content/miscFiles/tsglossarymay05>
8. The Sedona Conference Glossary For E-Discovery and Digital Information Management (May 2005 Version) <http://www.thesedonaconference.org/content/miscFiles/tsglossarymay05>
9. The Sedona Conference: Best Practice Guidelines & Commentary for Managing Information & Records in the Electronic Age (September, 2004 public comment version) <http://www.thesedonaconference.org/content/miscFiles/RetGuide200409.pdf>
10. Center for Technology in Government. Opening Gateways: A Practical Guide for Designing Electronic Records Access Programs <http://www.ctg.albany.edu/publications/guides/gateways>
11. Minnesota State Archives. The Trustworthy Information Systems Handbook <http://www.mnhs.org/preserve/records/tis/tis.pdf>

Projects

1. The Victorian (Australia) Electronic Records Strategy <http://www.prov.vic.gov.au/vers/vers/default.htm>
2. The InterPARES project <http://www.interpares.org/>
3. Oh, the irony! Reviewing the Functional Requirements for Evidence in Recordkeeping project (also known as the Pittsburgh Project) can only be done via Brewster Kahle's Internet Archive. The note from Dr. Cox illuminates problems and solutions regarding electronic documents. <http://www2.sis.pitt.edu/~rcox/FunReqs.htm>
4. The Delaware State Archives http://www.state.de.us/sos/dpa/govsvcs/records_policies/TopOfPage
5. Center for Technology in Government <http://www.ctg.albany.edu>
6. Washington State Digital Archives <http://www.digitalarchives.wa.gov>
7. The State of Michigan Records Management Application (RMA) Pilot Project http://www.michigan.gov/hal/0,1607,7-160-18835_18894-62996--,00.html

Reference

Council on Library and Information Resources [see the reports section in particular]
<http://www.clir.org>

D-Lib Magazine [digital library research and development]
<http://www.dlib.org>

First Monday [journal about the Internet]
<http://www.firstmonday.dk/index.html>

School of Information Management and Systems, University of California at Berkeley. How Much Information 2003? <http://www.sims.berkeley.edu/research/projects/how-much-info-2003/>

Cal Lee's Electronic Recordkeeping Resources <http://www-personal.si.umich.edu/~calz/ermlinks>

Alan S. Zaben's Records and Information Management Resource List – Electronic Records
<http://infomgmt.homestead.com/files/websites.htm#erecs>

This page is intentionally blank.

Acknowledgements

Robin Wilson, Idaho State University – Work Group Chair

Amelia Winstead, Georgia Office of the Secretary of State – NECCC Board Liaison

Work Group Members:

Joe Ahern, Wyoming Office of the Chief Information Officer

Jamal Booker, Georgia Office of the Secretary of State

Brian Burke, Center for Technology in Government

Marlena Hanson, Arkansas Office of the Executive Chief Information Officer

Margaret Lee-Harvison, Washington Office of Financial Management

Drew Mashburn, Arkansas Office of the Executive Chief Information Officer

Glen McAninch, Kentucky Department for Libraries and Archives

Cheryl Stadel-Bevans, NARA

Paula Swaim, Arkansas Department of Information Systems

Mary Walcott, Purchasing Division, City of Los Angeles, California

Dwight Wallis, Multnomah County, Oregon

Val Wood, Snohomish County, Washington

This page is intentionally blank.

Regulatory Impacts on E-Records Management Decisions: Appendix A

Company	Software	DoD Certified*	Type of content/ management	Security of Classified Records**	Characterization/ Classification of Records	Record Storage
Hummingbird	Hummingbird Enterprise	Yes	documents, electronic records, email, web content, instant messaging threads, and reports. Content, Record, and Knowledge Management.	Meets DoD 5015.2-STD chapter 4 requirements	Automated based on rules defined by the organization or mandated by regulations	Unified repository for storing any type of business content. Records are date/time stamped when created and this field cannot be changed.
FileNet	FileNet Records Manager	Yes	electronic, physical, email, and other business content. Record and Information Management.	Offers full regulatory compliance to be achieved, maintained and verified	Automated based on the Records and Information Management Policy.	A single repository for records and other business content
Stellent	Stellent Records Management	Yes	documents, published content, email, email attachments, recorded seminars and business records. Records Management.	Meets DoD 5015.2-STD chapter 4 requirements	Declare records by assigning them to appropriate record categories or folders or automatically define records using criteria.	Not discussed
EMC	EMC Documentum Records Manager	Yes	physical, electronic, email and scanned images. Records Management.	Meets commonly accepted electronic record keeping standards	Auto classifies records in a repository.	Stores inactive records that need to be retained for legal, fiscal, regulatory, or administrative reasons in a repository.
Open Text	Livelink Records Management	Yes	images, paper, documents, spreadsheets and email. Records Management.	Meets DoD 5015.2-STD chapter 4 requirements	Based on rules defined by the organization or mandated by regulations	Records are date/time stamped when created and this field cannot be changed. Records are stored in a repository
Vignette	Vignette Records & Documents	Yes	documents, emails, images, faxes, database records and web transactions. Document, Records, and Process Management.	Provide security across records using groups, users, roles, custodians, security hierarchies, and supplemental markings	Automated based on defined classification and security policies.	Ability to transfer info between departments and between different storage media.
IBM	IBM Record Manager	Yes	electronic and physical records. Records Management.	Meets DoD 5015.2-STD chapter 4 requirements.	Automated based on rules defined by the organization or mandated by regulations	Records are date/time stamped when created and this field cannot be changed. Records are stored in a repository
Xerox	Xerox DocuShare	No	electronic and physical records. Content, Records Management.	Multi levels of security	Enables end users to classify and create records.	Storage for record content is original Docushare locations for reuse.
Laserfiche	LaserFiche Records Management	Yes	imaged, physical, electronic, digital video and audio, and email records. Document, Records Management.	Safeguard records with comprehensive access controls.	Based on rules defined by the organization or mandated by regulations	Records are date/time stamped when created and this field cannot be changed. Records are stored in a repository

Regulatory Impacts on E-Records Management Decisions: Appendix A

Company	Software	Retention Period	Notification of Action Required	Movement/Retrieval of Records	Search Options
Hummingbird	Hummingbird Enterprise	Based on rules defined by the organization or mandated by regulations	Receive assigned tasks via email, browser, instant messaging alert, mobile device or portal	Monitor status at a glance with web-based graphical dashboard view of all processes. Workflow: create/capture, manage/ review, distribute/publish, store/preserve.	Search for both content and metadata. Organize results by relevance, source, concept, or theme. View content without the native application on the desktop.
FileNet	FileNet Records Manager	Based on rules defined by the organization or mandated by regulations	Not discussed	Organizing, securely storing and quickly retrieving essential company records.	Provides quick and complete access to all electronic and physical records.
Stellent	Stellent Records Management	Based on rules defined by the organization or mandated by regulations	Receive notifications when documents are added, modified, or declared a record.	Helps control the creation, declaration, classification, retention, and destruction of records.	Search and retrieve all content and records from a single point of access
EMC	EMC Documentum Records Manager	Provides clear, unambiguous guidance as to how to dispose of materials at the earliest opportunity.	Enables business processes for notification and exception handling.	Tracks retention schedules and controls and audits access to records throughout their lifecycles.	Automatically analyzes records and extracts actionable metadata in order to enable fast search and retrieval.
Open Text	Livelink Records Management	Based on rules defined by the organization or mandated by regulations	Able to search by event related folders. Work assignments can be sent to user's email.	Tracks retention schedules and controls and audits access to records throughout their lifecycles.	Extensive search capabilities including "find similar", search by content, metadata or both.
Vignette	Vignette Records & Documents	Based on rules defined by the organization or mandated by regulations	Manual authorization steps and critical record reviews and workflows.	Manage info assets through their lifecycle with check-in and check-out, versioning, full audit trails.	Browse for documents through organized file plans or use powerful global text search. Search by metadata, thesaurus search, full search.
IBM	IBM Record Manager	Based on rules defined by the organization or mandated by regulations	Able to search by event related folders.	Tracks retention schedules and controls and audits access to records throughout their lifecycles.	When you perform a search, it will show all versions/renditions of a record so you can find original or most recent.
Xerox	Xerox DocuShare	Based on rules defined by the organization or mandated by regulations	Notifications and alerts.	Centralized auditing, management and disposition of content.	Full text and metadata search, single word or text string searches.
Laserfiche	LaserFiche Records Management	Based on rules defined by the organization or mandated by regulations	Automated notifications for vital records reviews.	Secure records tracking from cutoff to final destruction or accession. Easily track records transferred among multi locations.	Provides instant access with Intelligent Search. Instant, flexible search and retrieval.

Regulatory Impacts on E-Records Management Decisions: Appendix A

Company	Software	Query/Reporting	Records Management	Platform/ Interface	Freeze/ Unfreeze Records	Export copies of records to hard drive	Limited access to users/ groups
Hummingbird	Hummingbird Enterprise	Full featured query and reporting package showing graphical summaries of content access and downloads, user behavior, workflow throughput, searches conducted, and project status	Enables the automatic creations, retention and final disposition of records at any stage of the content lifecycle.	Web-based and supports Microsoft.net applications, J2EE application servers, WebDAV, and JSR 168 portlets.	Yes	Yes	Yes
FileNet	FileNet Records Manager	All user actions are tracked and audited for proof of compliance. Allows custom reports to be easily generated.	Records are consistently and accurately captured directly from the origination application, then classified and authenticated. This automates the entire records management lifecycle process	100% Web-based. Microsoft SQL, Oracle, IBM DB2, J2EE servers, MS Windows, Sun Solaris, IBM AIX, HP HP-UX, Red Hat Linux.	Yes	Yes	Yes
Stellent	Stellent Records Management	Generate sophisticated reports on retention schedules and file plans, track user access	Automate the workflow process while maintaining preferred level of manual review. Prohibit changes or deletions once content items are declared records.	Web-based	Yes	Yes	Yes
EMC	EMC Documentum Records Manager	Not discussed.	Provides a comprehensive, scalable, end-to-end solution for the creation, version control, security, and lifecycle management of content of all types.	Web-based and navigates across wide-area network environments	Yes	Yes	Yes
Open Text	Livelink Records Management	Nested searches are available as well as queries showing audited events. Also has report writing capabilities	Manages electronic, non-electronic, and email records and stores them in a repository and maintains them in their original native file format	Web-based, standard web browser.	Yes	Yes	Yes
Vignette	Vignette Records & Documents	Documents organized by section to support compound document applications and high performance page-level retrievals. Multi-field query-by-example.	The records will remain unchanged as they are managed on a single integrated platform; and records can be managed with full audit trails at both the record and container level.	Single n-tier Java-based platform, fully web enabled	Not discussed	Not discussed	Yes
IBM	IBM Record Manager	Nested searches are available as well as queries showing audited events	Stores electronic documents in its repository and maintains them in their original native file format.	Operating systems and appropriate hardware platforms: Windows 2000, 95, 98, NT, XP	Yes	Yes	Yes
Xerox	Xerox DocuShare	Offers both simple and advanced querying and reporting using metadata associated with records	End-to-end content capture, processing, and distribution/disposition.	Multi-tier Java platform, and fully web-based.	Yes	Not discussed	Yes
Laserfiche	Laserfiche Records Management	Advanced audit trail reporting capabilities.	Enables total lifecycle management from document creation through declaration as a record to final disposition.	Not discussed	Yes	Yes	Yes

- * & ** here is the link for the requirements to be certified by the DoD 5015.2-STD Chapter 4 requirements: <http://jtc.fhu.disa.mil/recmgt/p50152s2.pdf>
- Records differ from documents/content in that a record must be managed subject to official compliance specifications for retention, access control, and disposition whereas a document/content does not. Due to the official nature of compliance specifications, control of a document/content must be transitioned from individual users to the corporation/agency at the time a document/content is declared to be a record. At this point, the record cannot be changed and is treated as a permanent asset to be retained for regulatory and good business practice reasons. - EMC Documentum
- Records management software enforces business rules for retention and disposition of records and authenticates the integrity of all records - even those in digital formats. Records management integrates well with content management since typical functions such as workflow management and access control are shared. When paired, the systems equip users with expanded utility. - EMC Documentum