Managing Records with Limited Resources

By Stephanie Tuin, MMC

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The International Institute of Municipal Clerks (IIMC) is devoted to advancing the professionalization of the Office of Municipal Clerk and improving the efficiency of municipal government. The IIMC provides its members with educational, conference, reference, research, and informational services designed to keep them informed of changes in the professional community.

The National Association of Government Archives and Records Administrators (NAGARA) is a professional association dedicated to the improvement of federal, state, and local government records and information management programs and the professional development of government records administrators and archivists.

The National Historical Publications and Records Commission (NHPRC), a statutory body affiliated with the National Archives and Records Administration (NARA), supports a wide range of activities to preserve, publish, and encourage the use of documentary sources, created in every medium ranging from quill pen to computer, relating to the history of the United States.

Preface

Like every organization, local governments create and maintain large quantities of records. Many of these records not only are of great value to the local government, but also are of concern and essential to the citizens of the community. Federal and state-mandated program requirements, changes in growth and development patterns, expanded service needs, the use of computers and other technologies for creating and using information, and the proliferation of copies in various formats, have all contributed to this enormous accumulation of records. Each publication is intended to make available to local governments the basic principles, policies, and guidelines that should be followed in establishing a sound records management program and in carrying out sound records management practices.

The series is intended for local officials, with limited resources, who lack formal records management or archival training but who have custodial responsibility for records. These local governments include townships, villages, cities, counties, school districts, and other local political subdivisions and special-purpose districts. Each of the following publications in the series includes a bibliography that refers to other reading for more detailed information and guidance.

Overview:

Starting a Records Management Program, The Daily Management of Records and Information, Making Your Records Management Program Successful, Managing Records on Limited Resources, Funding Your Records Management Project

Creation, Collection and Storage:

Identifying and Locating Your Records, Establishing Records Retention, The Selection and Development of Local Government Records Storage Facilities, Developing a Records Storage System

Preservation, Promotion, Use and Access:

Archives for Local Governments, Protecting Records, Using and Storing Microfilm

Care, Management, and Preservation of Electronic Records:

E-Mail Management, Selecting and Using Document Imaging Systems, Managing Electronic Records, Preparing for E-Discovery

Copies of these bulletins are available on the IIMC and NAGARA websites.
IIMC at www.iimc.com • www.nagara.org

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Preface

Managing Records with Limited Resources focuses on ways to succeed in developing and maintaining a records management program using free or low cost tools that are available in a typical modern office. This bulletin reveals the free tools available to any Records Manager, and how to apply these tools to the development of a basic records management program. There are also ways to find low cost solutions for the control and storage of records.

Introduction

Every local government should have a records management officer. This person must have an appreciation of records and their value.

Records can be ignored. There are other pressing issues, right? Paper records are often boxed and stored in a basement or closet, and forgotten - - until there is an information retrieval crisis! Digital records present another challenge. Electronic file space seems unlimited, so it seems easier to keep everything. However, all records need to be managed.

Records Management goes beyond space limitations, for both paper and digital records. One of the most important reasons for records management is: the right information can be located at the right time. In other words, less stress, more success.

You know the feeling: satisfaction in quickly finding a document for a citizen or a manager that contains the information that they seek. On the other hand, the inability to retrieve the desired record may compromise the manager's credibility and cast doubt about the organization in the public eye. Is there incompetence or dishonesty? Ineffective retrieval may equal liability. The following information will help organize both paper *and* electronic records. This can be done for minimal cost, but will require commitment and an investment of time. The results will more than justify the investment.

Key Records Management Concepts

So what is a record? A record is a strategic asset for an organization. It is one of the key ingredients that make up an organization, along with people, capital, and property.

Records……

- Contain information needed to conduct business.
- Provide the institutional memory for an organization and for a community.
- Hold documentation that details or protects the rights of citizens.
- Provide the backup documentation for billing or collecting taxes.
- Enable an organization to operate.

Archival records…..

- Have continuing value to the organization.
- Document policies, decisions, and the ways a local government conducts its business.
- Provide continuity with the past and illustrate interactions between government and citizens.
- Protect individual rights, and document government accountability and the evolution of its functions.
- Provide critical information to local government officials to assist in decision-making and continue ongoing operations. (Bartowski, 2)

Physical format of information may be paper, tape, diskette, email, a digital file (including word processing documents, databases, audio/video recordings, and electronic images), microfilm or microfiche. The common, critical variable in all formats is **content**. It is **content** that determines the value of the record.

Value is whether the information is routine, important, critical, or vital. Appraising the value of a record is a key step in records management. Determining if the content is a source of information or evidence of the organization's activities and official business transactions (Managing Municipal Records, 2-3) is the first step in appraising the document's value. A record is documentary information created or received by the organization that illuminates the business of the organization.

Records management is handling the record throughout its life cycle. A record's life cycle encompasses creation, distribution/use, storage/ retrieval, and long term storage (retention) or disposition.

Records Life Cycle

Information kept in a location where it cannot be found is lost data. Records management systematically tracks information; it is more than a filing system. Even a small to mid-sized operation may create a large volume of records daily. Efficient management/retrieval of these records can be vital to the health and operational integrity of the organization.

A records management system includes a good-faith effort to protect these important assets using sound principles, reasonable care, and best practices.

Objectives for a sound records management system are consistency, transparency, compliance with applicable laws, and accountability. Applying these values/objectives will mean records which are protected, accessible, retained as necessary/appropriate and disposed of when no longer are needed by the organization.

The end result: information can be found when needed. It may be required for research, strategic planning, to meet a citizen inquiry, for a court when they demand it, or by records custodians when it is time to destroy it.

Starting a Records Management Program with Limited Resources

Organizations may only dedicate modest resources to records management. Given the real value of records, this may not be logical, but it is reality. So, with limited resources, how can a Records Manager build a great, workable system?

1. Get Educated

Facing a records situation that needs lots of work is a daunting task. Yet a systematic and informed approach can result in a successful program. Records management knowledge is the best free "tool". Learning the needs within the organization is the first step in gaining valuable control of the records.

If records management is well developed, then this bulletin provides ideas for improvement. If just starting out, a Records Manager can begin with small steps; using what he or she can, keeping it manageable, and, like building a house, start future success in records management, one brick at a time. Gradually, progress will happen!

State Archivist or State Secretary

Every state government has a division that oversees records, usually the State Archives or the Department of State. That office will be one of the best resources for information. Search the web to find the state government website. Search for the State Archivist and Records Management. Most states provide a great deal of assistance to help determine what is required and expected of a records custodian. The State Archivist may have standard record retention schedules, perhaps a records management manual, plus contact information. Take advantage of all of these.

If the information is not available there, look on another state's website. Keep in mind that laws differ from state to state so any records management information will have to be adjusted to meet one's own state laws. However, records management principles

are universal so the information from another state can still be valuable.

Besides the local state website, North Carolina has an excellent website: www.records.ncdcr.gov/.

Colleagues in Other Local Governments

Others may have good information. Check out the website of the biggest city in the state. Contact Records Managers in nearby cities and towns. Networking with a peer in a nearby community can help in the quest for more information. They may be willing to share experiences in developing a records management system, or provide direction to other resources in the community or state. Is there a local or statewide expert? Ask to borrow their records policies or manual. Why reinvent the wheel? Use tools that others have developed for a successful program.

Another good source for local government records management is New York City's website: www.nyc.gov/html/records/html/about/records.shtml

State Professional Organizations

Most states have state professional organizations that are interested in records management. First, the state municipal clerks' organization is comprised of records custodians designated by their government. Some provide training in records management, others have written materials (see Colorado's Municipal Clerks Association's RIM Toolkit, detailed in the references list at the end of this bulletin). Most importantly, such organizations are contacts for other clerks who may lend expertise/assistance.

Generally, state professional organizations sponsor/host annual conferences or institutes. These may provide wonderful learning opportunities in specific areas like records management, and allow for networking with others that have the same interests. Many state organizations provide scholarships to underwrite the expense of attendance.

Advocacy Organizations for Municipalities

Many municipal leagues provide support and resources. The Colorado Municipal League has a particularly good library of publications; their website is www.cml.org.

National/International Organizations

NAGARA (National Association of Government Archives and Records Administrators) is dedicated to effective use/ management of federal/ state/local government records and information in all formats. NAGARA also is a central repository for government publications from states across the nation. State government records offices can upload guidelines, manuals, and record retention schedules to the site for anyone's use.

They are also co-sponsors for this and other Technical Bulletins listed in the front of this publication. NAGARA provides educational opportunities through their annual conference. NAGARA's website is: www.nagara.org

ARMA International (Association of Records Managers and Administrators) is an international organization that is recognized for its expertise on the management of records and information. The organization has chapters throughout the world and provides information on standards/best practices through a long list of publications. ARMA offers learning through local chapters, annual conferences, and its Certified Records Manager program. Their website is: www.arma.org.

AIIM (Association of Information and Image Management) is a non-profit organization that provides education, research, and best practices to help organizations find, control, and optimize their information. They also provide publications that provide guidance in how organizations can manage their records, regardless of format, and host educational opportunities through focused seminars and broader conferences. Their website is: www.aiim.org.

ICMA (International City/County Management Association) and NARA (National Archives and Records Administration) also have free-download records management publications. See the Resource Directory at the end of this bulletin for detailed contact information.

The Web

Search "Records Management" on the internet for additional information. There are many articles and research papers available.

State Law

State law books address public records and the responsibilities of a records custodian for a governmental organization. It is important for a records manager to be familiar with the laws specific to his or her state.

Records Management Committee

Develop resources within the local government organization. The size of an organization will determine the number of inside resources available. Representatives from different departments may be a resource for a Records Management Committee.

There may be an opportunity to find support from staff that would not seem obvious. Most municipalities, for example, have a police department. Police departments typically appreciate good record keeping. Perhaps the person in charge of police records will be a good ally toward establishment of a records management program.

Certainly whoever is in charge of the computer system will have a different, valuable perspective on records management. Terms used in records management take on a different meaning in the world of information technology. Having an IT (information technology) person on the Records Management Committee when addressing electronic records or in considering a technology solution is crucial.

Someone from the organization's legal staff will also be valuable. Records are an important element in litigation/legal compliance so the legal department has a stake in storage/retrieval of records.

These internal resources can comprise a Records Management Committee made up of various representatives from within the organization. This group will support and help make decisions about developing the records management program. Make it a team effort when possible.

Resource Directory and References

Many resources have been listed for easy reference. See Resource Directory at the end of this publication (page 12). See also Works Cited (page 18).

2. Organize! Organize! Organize!

Once basic records management knowledge is acquired, it is time to start organizing. Much can be done to organize and clear out records, even with very few funds. Any technology purchase should only come after that organization. Adding software to a disorganized mess ends up being a more expensive, disorganized mess! The importance of organizing records cannot be over emphasized.

Once organized, records will be accessible; and that is the key for a records management system. Information that cannot be located is lost and has no value. Records that can be retrieved in a reasonable time frame are invaluable to the user. So, to get started:

Separate Records from Non-records

Not all documents are records. The good news is once non-records are weeded out, the non-records can be destroyed.

What is not a record?

- Transient documents that have no long term or enduring information. They may be a draft or interim document that has not been circulated to others or does not contain substantive comments.
- Published or processed information that was received and used as reference like a document which was created by another. Examples include catalogs, technical publications, and newsletters.
- Junk mail or documentation that has no work-related informational or evidentiary value.
- Phone messages that contain no other information besides a message to return a call.
- A copy of a document or correspondence kept only for convenience of reference, on which no action is taken.
- Information accumulated and maintained at the workplace, but which does not affect or reflect the transaction of program business.
- Fax cover sheets, third party flyers, memos, and notices that convey information that do not relate to official business.
- A supply of out-of-date publications and forms, or distribution memos.

A *document* can be record or non-record. Sometimes the word *document* is used interchangeably with the word *record* but there is a difference in

records management. Most documents are records, but not all. To determine whether a document is a record or not, ask these questions:

- Did someone in the organization create the record? Was the information generated or received to use for technical or administrative work in conducting agency business?
  - ❏ YES – it is a record
  - ❏ NO – go to next question
- Does it contain informational value as evidence of the organization's functions, policies, decisions, procedures, operations, mission, programs, projects, or activities?
  - ❏ YES – it is a record
  - ❏ NO – go to next question
- Is it material that originated in another office or outside agency, but generated comment or action on the material by the local government?
  - ❏ YES – it is a record
  - ❏ NO – go to next question
- Does it document business actions, such as: what happened, what was decided, what advice was given, who was involved, when it happened, the order of events, and decisions?
  - ❏ YES – it is a record
  - ❏ NO – go to next question
- Is it an original document related to agency business that does not exist elsewhere?
  - ❏ YES – it is a record

  When in doubt, treat it as a record. (Nusbaum)

Reduce Duplicates

A duplicate of a record is still a record and must be treated as such. However, depending on operating needs, an organization is not required to keep duplicates of a record as long as the original or "record copy" is retained. If there is not an operational need to keep the duplicates, they can be disposed of in an approved manner. Remember to treat any confidential records appropriately by shredding or burning.

Reducing or eliminating duplicates can save resources for the organization and ensure that when the value of that record is gone, the record copy is destroyed. Then there will be no other copies taking up room in someone's file cabinet or on the computer server.

Address Electronic Records

Windows Explorer and Other Built in Organizers: Whether a Windows or a MAC operating system is used by the organization, every computer system will have some method of organizing files into folders or containers. Naming these folders or containers in a uniform method is a best practice that will be discussed in more detail under file naming conventions in the next section. Developing a standard naming convention will let others know what is contained within that folder or container. Windows Explorer also provides a search function that can be used to find files. By having standard file naming conventions in place, files can be located using a file name search. Windows Explorer can search by file names or by key words (specific words in the document itself) to locate a particular file.

Once a set of file folders with standard file names has been created, electronic files can be transferred into these folders Think of these folders as file cabinets for storing paper records, except these are digital. By developing these folders or containers, files can be found under a particular subject or record type. This will help identify duplicates or draft/interim versions which may be deleted, thus reducing the amount of digital records. Older records that have no value, and are authorized for destruction, can also be deleted.

File Naming Conventions for Digital Files:

An easy, no-cost way to organize digital records is to adopt standard file naming conventions. This means adopting a standard method of naming each digital file, so the contents within that file can be recognized. There is no right or wrong to creating a file name, consistency is the key. However, incorporating certain elements in the file name is part of best practices. Using certain file naming conventions will help when sorting and grouping documents.

Adding version numbers will ensure that the most recent version can be identified. Consistent file names reduce misfiles of digital files. Organizations and departments can determine the most appropriate naming conventions for their records.

Recommended elements to include in a file name are:

1. Title/Subject – what does the file pertain to?
2. Date, formatted as YYYYMMDD (four digit year, followed by a two digit month and a two digit date) or YYYYMonthDate (a four digit year, the month spelled out and the date)
3. Type of record or record series – use standard abbreviations such as:
   AGD – agenda
   CON – contract
   FRM – form
   LOG – log
   LTR – letter
   MIN – minutes
   PLN – plan
   RFP – request for proposal
   RPT – report
4. Author of the document (this is optional depending on operational needs)
5. Version number (such as V01 or V02)

Decide how to separate the elements. Possibilities include a dash, an underscore (although not recommended as it is hidden when the name is a link), capitalizing the first letter of each element, or a space. Certain symbols that cannot be used in file names with Windows are backslash (\), front slash (/), greater than sign (>), less than sign (<), asterisk (*), question mark (?), quotation mark (“), pipe symbol (|), colon (:), or semicolon (;) as these are used by Windows for other purposes.

Examples:

The January 15, 2011 minutes of the governing body may be named:

CityCouncilMinutes20110115MINV01.doc

or

City Council Minutes 2011 January 15 V01.doc

If only the final-approved version is kept, the version number may not be necessary.

One glance tells the user exactly what is in the file. When making these documents accessible to the public, consider the file name that is the most citizen-friendly.

Consistent file and folder naming will help keep electronic (digital) records organized.

3. Inventory the Records

An inventory includes locating, identifying, and describing all records held by the organization. (Etherington and Przbyla, 1). A sample inventory form is Appendix A. Involve others in the organization since they create and store records, and may be aware of more records. Develop a plan of attack with specific timeframes for completion of each step. Otherwise it is easy to let other tasks supersede this work.

It is very helpful to first enlist the support of upper management, and communicate this support as a priority with the Records Management Committee.

An inventory is time consuming. It may take up to an hour to inventory the quantity of records stored in one lateral file cabinet drawer. Inventorying digital records will take even longer. Break the task into small chunks that can be completed when someone has limited time dedicated to the task. Monitor the accomplishments frequently. The Records Manager can set an example by inventorying the records in his/her control and custody.

After the Records Manager and members of the Committee have enlisted help, they should visit the different offices in the organization and take time to inform the staff of the purpose and reason for the inventory. Explaining the need for access to all locations where records are stored, including the servers or drives where electronic data is stored, will help everyone get involved.

Furnish those assisting with records inventory forms and a floor plan of the building or specific work areas where they will be working. That way they can find the areas where file cabinets and other storage equipment are located. Be sure to instruct them on how to use the inventory sheet and what data to collect.

Instructions for starting an inventory:

1. Separate records (mentally) into like types, called records series. Sort the various types - minutes, contracts, correspondence, reports, ordinances, and resolutions (or other legislative actions of the governing body).
2. Determine the time frame of the records - the beginning date and the most recent date. Include digital records.

3. Besides listing the records series, describe what the record is and its physical format.
4. List where the records are stored and who the custodian is.
5. Estimate the volume of each series. Records Managers measure volume of paper records in cubic feet. A cubic foot is the amount of paper records that can be placed in a box 10 by 12 by 15 inches. Other conversions can be found on Appendix B. Electronic records volume can be collected in megabytes.

Information gathered while conducting this inventory will help determine storage needs. Total the volume of the individual collections of records to determine the storage area for paper records, or what size server will be needed to store electronic data.

4. Apply Record Retention Schedules

In the initial research, was it determined whether or not the organization had record retention schedules in place? Record retention schedules may have been developed by the organization or by the state agency that is in charge of public records (the Archivist in some states, or the Secretary of State). Record retention schedules are lists of common record types (called record series) and the recommended time period for keeping that record (retention period). That time period is determined via law, operational needs, or common practice.

Each department will have records that are similar as well as records that are specific to their department. Records schedules contain common records as well as department-specific records. An organization could have record retention schedules customized for each department, or it could have one schedule that every department must use.

Compare similar records and how they are being managed. Examples of records all departments will have are: 1) routine correspondence, 2) employee records like time sheets and leave requests, and 3) monthly or quarterly reports (either statistical or activity).

Records some offices may have include agendas/minutes of boards, project files, and contracts. Then there will be others that are specific to the department like building plans, development files, and traffic reports.

Appraise those record types and compare them to the retention schedules. Appraising records determines the value of the record to the organization. The time frames on the record retention schedules are the minimum time frames for keeping a record. If there is an operational necessity in keeping the record longer, it can be kept longer as long as there is reasonable justification ("just in case" is NOT reasonable justification).

Observe what time periods are recommended for retention of these records. Are they being kept in accordance with the schedules? Some records must be kept permanently (yes, forever). These include legislative actions and records of actions taken by the governing body (City Council, Board of Trustees, Commissioners, and any other decision-making bodies). These are usually resolutions, ordinances, and minutes of meetings.

Destruction versus Archiving

Completion of a comprehensive inventory and appraisal will likely reveal that about two-thirds of retained records are no longer of value and can be destroyed. But does this allow for these papers, tapes, and disks to be just thrown away? NO! The State Archivist or State Secretary has likely identified acceptable methods for disposing of records. Some of the methods are deep trench burial, burning, recycling, and shredding.

In any case, records management does not end once records for destruction have been identified. Tracking what has been discarded is just as important as every other step outlined in records management. Destroying records, and yet not knowing what was destroyed, and that it was destroyed as authorized, can hurt the organization almost as much as not being able to locate a record. Log what record series were destroyed, the time frame included, and the volume (use Appendix B to calculate the volume). Document the authority to destroy the records by referring to the records retention schedules. If records are destroyed as authorized by the records retention schedules at the time allowed by an approved method, the organization will likely not be held liable for not having these records.

Conducting all of the steps outlined previously, and having an operating practice that is approved, accepted, and applied consistently, will protect the

organization. Regular and systematic disposition of records according to record retention schedules provides "evidence that records that no longer exist were not destroyed to avoid their use as evidence in court or to evade open records requests" (Norris, 3), but rather were destroyed as part of normal operating procedures.

Additionally, the impact of records management will be appreciated in space savings, as well as new efficiency and economy in records operations, especially retrieval.

In fine tuning the program, the Records Custodian and other members of the organization, will experience a sense of pride and professionalism in being able to successfully respond to inquiries and requests from internal and external customers.

5. Tracking Systems - Develop a Data Map

Where does a record live? And who is the custodian? Tracking systems/data maps will be continually manifested through records use. A tracking system is an element that is crucial in any records management program.

One of the most important steps in organizing records is to develop a data map or file plan. This is a map that leads those looking for records to the desired location. Both electronic and paper records are included. There are three key elements inherent in each data map: 1) the individual record series, 2) the retention period as established by records schedules, and 3) the location of the document. The data map can be developed on a spreadsheet or in a database. Developing the data map in a spreadsheet will allow sorting and searching the information.

The data map tracks information that is available and where it can be found. For example, utility billing software is a specialized program that contains customer information including addresses, meter readings, and use history. Utility billing software is programmed to run a report that prints out utility bills for customers. Managing that information can be tricky yet that information cannot be ignored; and must be managed. Entering the specific type of information and its location within a specific program accomplishes that important records management step. Remember the definition of records management. "It is tracking information so it can be retrieved or accessed" - thus the necessity of a data map.

An example of a data map can be found on Appendix C.

Microsoft Excel or other spreadsheet programs or database programs

Microsoft Excel or other spreadsheet programs can create the data map as discussed above. The data map is the cornerstone of any records management system regardless of the size of the organization or the type of system - manual, technology assisted, or software managed system. Due to diversity of formats used in business today, it is imperative that a data mapping system be established so that records, no matter what format or medium, can be located. Besides paper documents, audio/video tapes, emails, CAD (computer-aided design) files, and a host of database software applications are employed to capture information today. This is, of course, in addition to the standard maps, word processing documents, and PowerPoint presentations.

Even sophisticated records management software solutions limit the types of records captured. That is why a data map is so important. Most of this information will stay where it is when it is put to use, but the data map informs what information is extant and where to find it. If a spreadsheet or a database program is not already available, search the web for freeware that can do the same job - Google and Open Office are examples. Applications are also available for Apple (Mac) computers.

A data map will be the key to success. If asked about the location or existence of particular information, the answer will be in the data map or file plan that can be searched by keyword and sorted by record series; information can then be located efficiently. What a feather in the cap of the Records Manager who has at his or her fingertips the means to provide the data needed by the requestor! After all, the right information can be invaluable to those who need it.

6. Create the Records Center

A records center does not have to be elaborate to be effective. Determine if there is an area in the office space or building that can be dedicated to records storage for paper records. Try to ensure that this records storage area is away from water pipes (if a multilevel building, is there plumbing overhead?). If not on the ground floor, is the weight capacity of the floor sufficient to hold heavy paper documents? If fire or flood happens, those paper documents will get wet and weigh three times what they weigh dry!

Ideally, different storage units can house different types of records. In the records appraisal, permanent records and vital records were identified. These two types of records should have the highest priority for preservation. If there is access to any fire proof or fire resistant cabinets, these should store the most mission-critical papers. During the inventory, the volume of each type of record was estimated. Use those volumes now to determine the amount/type of storage needed.

Next, look at records that need to be accessed regularly and decide what type of storage unit will provide the best access. Lateral storage is usually the easiest file access for active records. It can be shelving or lateral file cabinets. Again, the inventory evaluated the amount of equipment or area needed.

Thirdly, certain records require long term storage, but not frequent access. Financial records are an example. It may be preferable to box these records, label them clearly, and store them in a less active area.

Environmental Considerations

Proper conditions for archival records storage are clean, pest free areas, with fairly stable temperatures/humidity levels. Ideal temperature is 65 degrees F with 45% humidity, and with no more than 2% change for either metric. Maintain air flow around the records; minimize exposure to light and dust. Ensure there are smoke/fire detection and suppression systems. Prevent exposure to food, liquids, fumes, and smoke. Use industrial grade shelving - at least gauge 18 steel shelving with a powdered or baked enamel finish - if possible. Strength and bracing are crucial.

Additional measures protect permanent and historical records, such as acid/alkaline free file folders and cartons. Microfilm is another option that lasts longer and takes up less space than paper records, and presents the opportunity for a security copy elsewhere.

Storage for Electronic Records

One might think the storage considerations are entirely different for electronic records. However, if there are thousands of records stored on a computer drive, it is important to consider where that computer drive is being run. If there is IT (computer) staff, protection of that computer or server should be confirmed. Whoever is in charge of that computer or server must consider that many of the organizational assets are being stored on that piece of equipment: it must be protected from adverse environmental conditions in much the same way as the paper records.

Electronic equipment should also be stored as to prevent the possibility of water damage from broken pipe or fire suppression. Room humidity and temperature must be controlled. Additionally, do not overlook the electrical system. The power supply, not only to the server or computer itself, but power to the system that controls the environment, (especially the cooling system) must be protected. If a network exists, each file server should be evaluated. All of these things should be taken into account including the exclusion of food, liquid, fumes, and smoke.

Such resources underpin a successful program. Low cost tools can be applied to the records management system that will improve efficiency. The next section provides insight into low cost options.

7. Apply Technology

Once records are organized, consider records management software to improve the records management program. Look at the life cycle of records and consider whether technology might improve any stage of the record's life cycle. Remember life cycle is creation, distribution/use, storage/retrieval, and long term storage (retention) or disposition.

Technology has made the creation of records so much more efficient. Records are now almost exclusively created by word processing. It is difficult to imagine creating records without technology – hand writing and even typing documents is rare.

Technology can help other stages of the records life cycle, to improve the records management program.

Distribution and use focuses on the accessibility of the record. If records are in paper format, they are generally copied and distributed so that others can share the information. Where the record copy of the document is filed will be identified in the data map, so that it can be easily retrieved. However, if the record is in digital format, it can be held in an electronic records management program accessed throughout the organization's computer network.

An example is an executed contract for a construction project. The final contract is of interest to several departments – the engineer needs a copy to ensure that the contractor starts on time, performs according to specifications, and completes the project by the agreed-upon date. The attorney needs a copy to ensure that the contractor has the proper certifications and insurance to prevent unnecessary liability. The accounting department needs a copy to alert when payments are due. Rather than make three copies of the contract, a digital copy – scanned into an electronic management system – can be accessed by all three, minus additional paper copies. If only one electronic copy is retained, it can be destroyed at its proper time, eliminating the possibility of other stored copies. This system reduces space needed for organization records.

Several electronic records management software packages are available. They can be as simple as a shared drive on the computer network, with a search tool. Windows Explorer can store and search text based documents. Standard file naming conventions for digital files, as discussed on pages 5-6, also aid the use of a shared system, with multiple users.

Googledocs is a free open source application where one can share work on line by uploading files to a hosted site. This "cloud computing" is becoming more popular with all sizes of organizations – many large organizations have migrated to these open source web applications and are now saving thousands of dollars. Wikipedia lists 132 open source content management systems that can be used for records management.

SharePoint and Open Text are two popular commercial applications. SharePoint by Microsoft boasts it will manage versions, apply retention schedules, identify records, and place legal holds, whether dealing with traditional content, Web content, or social content. Open Text is designed to help manage business content effectively, and to meet compliance and information governance requirements. If the organization has the resources to apply technology to the records management program, research various options.

Storage/retention is another stage in the life cycle of records that can be aided with technology. To manage the storage of paper records, consider space management software to track records location. Use a spreadsheet to identify the location and contents of each box. Space management can be incorporated into a tracking system or a data map. A bar-coding system can barcode label each box, and a hand held scanner can code its contents. Most moving and storage companies use similar systems. Determine what tracking tools they use locally.

For storage and retention of digital records, the same software used to allow access for records can be used to store records. Software is available, like SharePoint and Open Text mentioned previously, that can be used as a central repository for retaining electronic records. Including retention schedules in the initial configuration of the software permits reporting of records to be destroyed or records for permanent retention.

More organizations are depending on electronic storage of information. Safeguards should be in place to ensure accessibility of electronic records

over the long term. A plan for migrating data to the next generation of software and periodic checking of storage media are two critical elements for long term storage of electronic information. Standards for keeping text based information include converting to a PDF/A format (a format created by Adobe Acrobat). Software for reading this format is a free download from the internet.

Images and graphical information can also be stored in PDF or in other standard formats such as TIFF and JPEG. Retaining information in a proprietary format, that is a format that can only be read by particular software, is not recommended.

Using technology to manage records can be as basic as using file and directory structures with standard naming conventions combined with a spreadsheet for tracking the physical location of the records. In contrast, more complex software systems provide a central repository, allow for the application of record retention schedules, and have the capability to create reports for tracking, destroying, and cataloging of records for permanent storage. Electronic records management systems can be built up gradually using limited resources, demonstrating along the way the value in having access to the information being requested.

Maintaining the Records Management System

With a data map in place, the location of all records is known. The next question is can an effective system be maintained? The records created in the last three months are accessed the most so ensuring their accessibility is important. It is imperative that the records management system emphasizes location and use.

Finding the time

Ideally, each document is managed upon creation. Yet business makes demands, as it makes records. File naming conventions, and saving documents to designated locations, help organize digital files. Allocating time every week to focus on paper records will help keep current the paper based system. Efficiency helps avoid crunches in time constraints. Time saving techniques include label templates for file folders, or a desktop shortcut to access the tracking system quickly.

Staying current

Technology is changing rapidly. Additional business systems necessitate new records management. In the mid-1990's, email was considered transient information, not necessarily a record. Now email is part of business and courts hold that emails can be records, depending on content.

In the early 2000s, social networking was thought of as a personal communication tool. Now nearly every organization has a Facebook page, which is used to communicate with constituents and customers. Are these communications records? Content answers the question. Go back to the decision engine on page 5. If so, consider incorporating these documents into the records management system.

Finding outside resources

Outside assistance can provide valuable help. An obvious resource may be the local librarian. They too are in the business of protecting, retrieving, and retaining informational assets. Enlisting their assistance, if only for sharing ideas, can help. Consider also the curator at the local museum. They are professionals in protecting and preserving informational assets. Is there a local college or administrative professional school? Talk with them about providing an intern program; their senior students may assist with the program (inventorying, cataloging, and scanning) in exchange for credit. Volunteers, interns, and students, whose work is properly planned and supervised, may jumpstart a new records management program or boost the one in place.

Also consider colleagues in similar organizations. If a municipality, is there someone in the County government who is willing to share ideas? Perhaps a nearby town provides a resource.

Conclusion

Starting from nothing, or improving upon an existing system, is an exciting records management challenge. Locating records of an organization when requested is a Records Manager's responsibility, and is also very satisfying. The keys to developing a good records management system is to know what information is available, where it can be located, and retrieving the information in a reasonable time frame.

Moving records through their life cycle of creation, use/distribution, storage/retrieval, and retention/disposition, is the method a Records Manager employs to ensure that correct records are kept and ones having no further value to the organization are destroyed.

Records value is determined by content, not format or medium. As records format/media continues to grow, a Records Manager must stay current to ensure that records, which are important strategic assets of the organization, are protected and preserved.

Applying sound principals, using reasonable care, and learning best practices for records management will protect these very important strategic assets of the organization.

Resource Directory

National Association of Government Archives and Records Administrators (NAGARA)
90 State Street, Suite 1009
Albany, NY 12207
Phone: 518-463-8644
Fax: 518-463-8656
Email: nagara@caphill.com
www.nagara.org

International Institute of Municipal Clerks (IIMC)
8331 Utica Avenue, Suite 200
Rancho Cucamonga, CA 91730
Phone: 909- 944-4162 or 800- 251-1639
Fax: 909- 944-8545
E-mail: Hq@iimc.com
www.iimc.com

Association of Records Managers and Administrators (ARMA)
13725 W. 109th St, Suite 101
Lenexa, KS. 66215
Phone: 913-341-3808 or 800-422-2762
Fax: 913-341-3742
www.arma.org/

Association for Information and Image Management (AIIM)
1100 Wayne Avenue, Suite 1100
Silver Spring, Maryland 20910
Phone: 301-587-8202 or 800-477-2446
Fax: 301-587-2711
E-mail: aiim@aiim.org
www.aiim.org/

National Archives and Records Administrators (NARA)
8601 Adelphi Road
College Park, MD 20740
Phone: 866- 272-6272
Fax: 301-837-0483
www.archives.gov

International City/County Management Association (ICMA)
777 North Capitol Street, NE
Suite 500
Washington, DC 20002-4201
Reception Desk: 202-289-4262
Toll Free: 800-745-8780
Fax: 202-962-3500
www.icma.org

Appendix A

Sample Records Inventory

Name of Organization	**Dept/Div/Unit**
Record Title (include variations if any)	
Description (include purpose and content)	
Format _____ Paper ____ Letter ____ Legal ____ Other (specify) _____ Digital Specify program: Specify medium:	**Location of Record**
Quantity ____ Cubic Feet ____ Megabytes	**Annual accumulation** _____ Cubic Feet _____ Megabytes

Are Records still be created? _____ Yes _____ No	**Years** Earliest: Latest:	**Arrangement** _____ Chronological _____ Alphabetical _____ Numeric _____ Other	**Frequency of Use**

Recommended Retention Period	**Justification**
Action Recommended by Records Manager	**Action Recommended by State Archives**

Prepared by (Name and Title)	**Reviewed by (Name and Title)**	**Phone Number**

Disposition

Additional Comments

Appendix B

Cubic Foot Equivalency Chart*

FILE FOLDER DRAWERS	CU. FT
Letter	1.5
Letter Transfile	2.0
Legal	2.0
Legal Transfile	2.5
Ledger	3.0
Jumbo	4.0
SHELF UNITS	
Letter 36″ long	2.4
Legal 36″ long	3.0

CARD FILE DRAWERS	
3″ x 5″ x 26″ long	0.4
3″ x 5″ x 14″ long	0.2
3.5″ x 7.5″ x 26″ long (tab)	0.4
3.5″ x 7.5″ x 14″ long (tab)	0.2
4″ x 6″ x 26″ long	0.5
4″ x 6″ x 14″ long	0.2
5″ x 8″ x 26″ long	0.7
5″ x 8″ x 14″ long	0.4
6″ x 9″ x 26″ long	1.0
6″ x 9″ x 14″ long	0.6

MAP OR PLAN DRAWERS	CU. FT.
2″ x 26″ x 38″ (flat)	1.1
2″ x 38″ x 50″ (flat)	2.2
4″ x 26″ x 38″ (flat)	2.3
4″ x 28″ x 50″ (flat)	4.4
MAP OR PLAN TUBES	
2″ x 2″ x 38″ (roll)	0.1
2″ x 2″ x 50″ (roll)	0.1
4″ x 4″ x 38″ (roll)	0.3
4″ x 4″ x 50″ (roll)	0.5

RECORD CENTER CONTAINERS	
10″ x 12″ x 15″ (letter or legal)	1.0
3.5″ x 8″ x 14″ (tab)	0.2
3.5″ x 8″ x 24″ (check)	0.4
6″ x 6″ x 36″ (check)	0.6
6″ x 6″ x 48″ (map)	0.8
4″ x 4″ x 48″ (map)	0.3

ALL OTHER USE FORMULA

L x W x H (INCHES)

1728″ = cu. ft./unit

*Municipal Records Management Manual. Commonwealth of Massachusetts, Division of Archives, Office of Secretary of State.

Appendix C

Data Plan or File Map Example

Record Series	Description	Format	Beginning Date	Ending Date	Volume	Permanent or Non Permanent	Retention Period	Location
Equipment Contracts	Agreements with Office Supply Companies for Office Equipment	Paper	1/1/2006	present	1 cu ft	Non Permanent	7 years after expiration	City Clerk Storage Room Cabinet 2
Solicitations	Specifications and Requests for Proposals - Rejected	E-pdf	1/1/2009	present	6 mb	Non Permanent	3 years after rejected	EDRMS
Deeds	Property Ownership Documents	Paper & E-tiffs	1882	present	4 cu ft & 100 mb	Permanent		City Clerk Storage Room, FR Cab 1, EDRMS

Glossary of Records Management Terms

It is helpful to know the meaning of certain terms used in records management. There may be other definitions in different fields and disciplines for the same terms. Likewise, the term may be used differently than what a common definition would indicate. Definitions were obtained from the following sources: ECM Glossary by AIIM, US DOD 5015 2 STD, "Managing Records on Limited Resources" by Stephen E. Haller, CRM (1991.), Wikipedia, "Fundamentals of Managing Local Government Archival Records", Local Government Records Technical Information Series No. 40, 1995 by Gloria Bartowski, and USLEGAL.COM.

Access: The ability or opportunity to gain knowledge of stored information.

Active Record: A record in current use for an organization to perform its ongoing, day-to-day operations.

AIIM: The Association for Information and Image Management.

Appraisal: The process of evaluating records to determine their ongoing importance.

Archival value: The determination in appraisal that records are worthy of indefinite or permanent preservation.

Barcode: A coding system consisting of rectangular marks and spaces in a predetermined pattern which, when read by an optical reader, can be converted to machine-readable language.

Cloud computing: The delivery of computing as a service using shared resources, software, and information over a network (typically the Internet).

Compliance: The process of obeying laws, regulations or standards.

Content: "Unstructured" information including text, images, office documents, graphics, drawings, web pages, email, video, audio and other rich media assets. Information stored in a variety of formats available for retrieval, re-use, and publication.

Database: Data organized and stored so that it can be manipulated or extracted, usually by a computer.

Disposition: The action that is taken when a record reaches the end of its retention period. The three main options are destroy/delete, transfer, to an archive, or review by the record owner.

Document: Recorded information or object which can be treated as a unit.

Electronic Document/Records Management System (EDRMS) or Electronic Records Management System (ERMS): A computer application that can manage electronic and physical, including paper, records.

File format: The structure and/or encoding of a file that allows it to be interpreted or rendered in human accessible form.

File naming convention: A systematic and consistent way of naming files in order to be able to quickly identify the content of the digital file without opening it.

Historical value: Records which are retained for the purpose of history and not necessarily for business purposes.

Information Technology (IT): The functional unit within an organization that is responsible for the computer systems, both hardware and operating systems.

Integrity: The property of being complete and unaltered.

JPEG: A commonly used method of compression for photographic images.

Microform: Microfilm or microfiche. A photographic reproduction on fine-grain, high-resolution film of a document and greatly reduced in size.

Non permanent record: A record that will, over time, lose its value to the organization and can eventually be destroyed and no longer held by the organization.

Open Source: Computer software for which the source code and certain other rights normally reserved for copyright holders are provided under a software license that is in the public domain. This permits users to use, change, and improve the soft-

Glossary of Records Management Terms (continued)

ware and to redistribute it in modified or unmodified forms. It is very often developed in a public, collaborative manner.

PDF/Archival or PDF/A: A derivative of the Portable Document Format (PDF). The US Library of Congress defines it as "…a constrained form of Adobe PDF version 1.4 intended to be suitable for long-term preservation of page-oriented documents".

Permanent record: A record that contains information that will retain its value to the organization due to its historical or administrative information so that it must be retained in perpetuity.

Physical record: A record held in non-electronic form.

Proprietary format: A format that can only be read by particular software; a format where the user has no way to retrieve the information except by using a version of the original software which produced the file.

Record: Information created, received, and maintained as evidence and information by an organization or person in pursuance of legal obligations or in the transaction of business.

Records custodian: The person responsible for keeping records in the ordinary course of business. The assignment of this responsibility may be by appointment, position, or by law.

Records management: Field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records.

Records manager: The individual within an organization who is assigned the responsibility of systematically managing information created, received, and maintained as evidence and information by an organization or person in pursuance of legal obligations or in the transaction of business.

Records series: A group of identical or related records that are normally used, indexed, and filed together and related to a similar function or administrative activity and which are managed as a unit for disposition purposes.

Retention period: The time records must be kept according to legal and/or organizational requirements.

Retention schedule: A set of instructions allocated to a class of files to determine the length of time for which its records should be retained by the organization for business purposes, and the eventual fate of the records on completion of this period of time.

TIFF: Tagged Image File Format is a file format for storing images which is widely supported by image-manipulation applications.

Title: The name given to the resource. Typically, a title will be a name by which the resource is formally known. In electronic records management, the "resources" are classes, files, records, and (in some cases) documents.

US DOD 5015.2-STD: A standard developed by the US Department of Defense that has been adopted as a way to test and benchmark electronic records management software applications.

Version control: A document management feature allowing users to develop and manage successive drafts of their work in a controlled manner.

Vital record: A record containing information essential for emergency operations during a disaster; the resumption and/or continuation of operations; the re-establishment of the legal, financial, and/or functional status of the organization; and the determination of the rights and obligations of individuals and corporate bodies with respect to the organization.

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