

What is a “Migration Plan”?

Tom Nield, Electronic Records Archivist

A Migration Plan is a road map to help your client ensure the trustworthiness of records that are stored electronically. The plan covers everything from the software used to the hardware used. It also includes considerations of how the market is impacting your client’s business processes. There are three areas the plan should address: media renewal, file conversion, and data migration.

Media Renewal

Media renewal means moving the data to newer media. The media may be of the same type (copy renewal) or may be of different type (reformat renewal). Existing media must be checked periodically to ensure data integrity. If data corruption is detected, the data can be copied from offline backup media to fresh media. Media should also be replaced after a given amount of time regardless if there is corruption or not. The longevity of the media and market conditions will dictate whether the same media will be used or new media will be adopted.

The following must be included in the media renewal portion of a migration plan:

- 1) Copy renewal
 - a) Existing media must be checked periodically to ensure data integrity. If data corruption is detected, the data can be copied from offline backup media to fresh media.
 - b) When the existing media is in use for a period of time and the media is still in wide use, the data must be copied to fresh media.
- 2) Reformat renewal
 - a) If the existing media is falling out of market favor the following criteria must be used in selecting the new media:
 - i) The media must be high capacity.
 - ii) The media must have a high data transfer rate.
 - iii) The life span of the media must be long enough to satisfy the organization’s requirements.
 - iv) The media must have a stable market presence.
 - v) The media must be affordable and available from multiple vendors.

File Conversion

File conversion means incrementally upgrading the file format to a newer version (i.e., version 3.02 to version 3.4) or to a whole new software application package using the existing computer platform (both operating system and hardware). The incremental approach usually does not have an adverse affect on existing data, however the same precautions must be taken as if the data were being converted over to a new software application package. The market will have a huge impact in this area. For example, does anyone other than attorneys and academics still use Word Perfect?

A successful file conversion must have the following parameters:

- 1) The prospective file format must render the original true.
- 2) The format must have a stable market presence and be considered a de facto standard.
- 3) Its use must be widespread.

Data Migration

Data migration means moving the data to a whole new computer platform. This includes the application that reads the data, the operating system, and possibly the hardware. This is a complex effort and will possibly require an inter-departmental data migration team.

The following items must be considered periodically when assessing data migration:

- 1) Maintaining the current system is too cost prohibitive.
- 2) Potential loss of retrievability, reconstructability, and understandability when alternative of lost use is unacceptable.

The Missouri Secretary of State's Records Management Division recently endured this process when the Records Center Database was migrated from an MS-DOS based Clarion database to a Windows based Access 97 database. The Clarion system didn't have any in-house support, the modules generating required reports had become unstable, the amount of data was overwhelming the database engine, the database was not year 2000 compliant, and the office was migrating from Novell to Windows NT 4.0.

It was clear that the Clarion database had to be replaced. A partnership between the IT department and Records Management worked to create a new database containing features that were not present in the Clarion system and that the migrated data was accurate. Once the new database was created, the old database was used alongside the new one for approximately one year. The old system was finally shut down when the team was satisfied with the performance of the new system and found the data was accurate.

The most specific part of a plan will cover media renewal because a timetable will be set and must be adhered to. File conversion need only be considered periodically but care must be taken when it is done. data migration is best done when you choose the time and place and not when you are forced into it. Bear in mind that a data migration job may take up to and possibly exceed a year.

Our Next Chapter Meeting:

September 17, 2001

Presentation:
*Electronic Records
and the Internet*

Community Room
Boone County Bank in Ashland

3:00 – 5:00

For more details see:
www.showmearma.org

Disaster Prevention: Know Your Enemy

Willie M. Jones, UM Records Analyst

As more of our vital records are created and stored on information systems, businesses and government agencies are beginning to see the need to protect their systems from outside attacks. As records managers, we should be concerned about these attacks because of the potential damage to the integrity and authenticity of the records stored on these systems.

Assigning accountability within an organization for information security management is a business and managerial issue that should be addressed at the highest levels of management. Records managers should work with their IT departments and senior level management to ensure that the integrity of the information systems remains intact.

As the pace and sophistication of computer attacks increase, organizations are looking for ways to defend themselves. One method is to load up on all of the latest protective software.

Another avenue some organizations and big businesses are taking is to send their systems' people to school so they can learn how hackers and crackers exploit system vulnerabilities. These seminars teach their own employees how to crack a system themselves. The hope is that by being armed with this knowledge, they can close their systems to attacks.

There are several teaching labs around the country such as Foundstone, Ultimate Hacking and Web Hacking that offer classes for those needing this type of specialized training.

Some of these lab exercises that attendees get to participate in are: hacking a Web server through a firewall; session hijacking the GUI (Graphical User Interface); cracking passwords; bypassing router

security; routing through IPX (Inter-network Packet Exchange); NetBEUI networks (NetBIOS Extended User Interface); enumerating user and system information from NT, Windows 2000 and Unix Host; grabbing remote shells; executing streamed files; executing buffer overflows; decrypting Cisco passwords; leveraging port redirection for maximum exploitation; and launching, detecting and preventing Distributed Denial of Service Attacks.

In addition, Web Hacking teaches CGI (Common Gateway Interface), ASP (Acquisition Systems Protection) and Cold Fusion vulnerabilities, e-shoptlifting, impersonation using coolies, hacking SSL (Secure Sockets Layer) enabled sites and buffers, plus other exploits, such as input-field overflows.

Raising awareness has become more of an upper management responsibility. The importance of ensuring that all parties in the organization "know, understand, and adhere to sound information security" is vital because hackers are counting on the fact that many organizations will not protect their systems until something costly happens.

For years we as records managers have put forth much effort to protecting information in the hard-copy media format. But, not until recent years have we had to think about investing in sophisticated technologies in order to secure our electronic information systems from unknown enemies.

Reference:

The Government Technology Magazine, July 01 issue.
Solutions For State And Local Government In The Information Age.

Contingency Planning & Management, July/Aug. 2001
Volume VI.

DISRUPTION DEFENSE: Workplace Addictions

President's Pen



Hello Chapter Members

It's the beginning of a new chapter year. The board has meet, and it looks like we are putting together an exciting and informative year. But remember this chapter belongs to all of us and I hope that if you have ideas or suggestions to improve the chapter you won't hesitate to contact a board member.

In a couple of weeks, I will be meeting with the Heartland RIM seminar committee to wrap up the business of this year's conference and begin the process of planning next year's conference. The preliminary numbers look good and

I think we will be bringing some income back from this year's conference in Kansas City. At that time we will decide what direction to take the next conference.

September 17 will be our first meeting of the new chapter year. It will be held in the community room of the Boone County Bank in Ashland from 3:00 to 5:00. There will be a video presentation on electronic records courtesy of the folks at the university, and we are working to find a speaker to talk about the internet.

Hope to see you there
Will Masters

TREASURER'S REPORT



**Balance at Close of Program Year
2000-01: \$ 3,420.33**

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Please feel free to call them any time you have any questions about ARMA

Who Wants to be a Buckinaire?

Marry-Ellyn Strauser, CRM

Yes, it's time once again to play Buckinaire! It's your chance to earn some ARMA bucks. For each correct answer you'll earn \$25. That's a possible \$250 bucks. Answers to the quiz will be announced at our September meeting. *You must be present to win.*

If you can't join us, play along anyway. It's fun, it's free, and it's safe for kids of all ages! Answers will also be published in the next edition of the *Mid-Missouri Star*.

These questions come from the June 2001 edition of *Info Pro*, the July 2001 edition of the *Information Management Journal*, and the ICRM's *Preparing for the CRM Examination: a Handbook*. Good luck!

- 1) Which of the following is **not** included in ISO 15489's benefits of records management:
 - a) policy formulation
 - b) managerial decision making.
 - c) continuity in the event of a business disaster.
 - d) systematic and scientific control of recorded information.
 - e) maintaining the corporate memory
- 2) It is a disturbing fact that ____ percent of paper that are filed are never referred to.
 - a) 20.
 - b) 45.
 - c) 50.
 - d) 90.
 - e) 95.
- 3) The term "source document" would most accurately refer to a:
 - a) magnetic card.
 - b) microfilm roll.
 - c) microfiche.
 - d) sales slip.
 - e) file folder.
- 4) "Three of nine" or "Code 39" refers to:
 - a) a paper weight measurement.
 - b) a standard bar code.
 - c) a monitor's display density.
 - d) an Internet error message.
 - e) Picard's name when he was a Borg.
- 5) The film size used for microfiche is:
 - a) 8 mm.
 - b) 16 mm.
 - c) 35 mm.
 - d) 70 mm.
 - e) 105 mm.
- 6) Which of the following data elements is not essential to collect when developing a records retention schedule?
 - a) Inclusive dates for the records within each series.
 - b) Name of each records series.
 - c) Volume of the records in each series.
 - d) Arrangement of the records in each series.
 - e) None of the above.
- 7) The archival term "provenance" means:
 - a) Rhode Island had the first State Archives.
 - b) the geographic location from whence records have been accessioned into the archives.
 - c) the records should be preserved in groups that correspond to their source of creation.
 - d) the records should be filed world-wide as they are in Southern France.
 - e) it's mine, not yours.
- 8) According to Disappearing Inc., two benefits of their self-destructing e-mail are:
 - a) reduced storage requirements for e-mail and reduced company exposure to risk.
 - b) more luxury automobiles for attorneys and stock market gains by pharmaceutical companies as Records Managers buy more non-prescription pain relievers and antacids.
 - c) a and b.
 - d) none of the above
 - e) all of the above

- 9) The Gunning Fog Index is a formula that is used to measure:
- light on a cloudy day.
 - vesicular limits in microfilm density.
 - reading difficulty of written communication.
 - the accuracy of report in a functional index.
 - None of the above.

- 10) Which of the following are not normally the responsibility of a records center clerk?
- Deciding when records are no longer necessary and may be destroyed.
 - Checking in records for inactive storage.
 - Maintaining reference and control forms.
 - Preparing documents for microfilming.
 - Operating shredding equipment.

Records Management Resources on the World Wide Web



Here is another round of web resources on records management to add to your collection. Check them out and expand your world.

The Columbia/Jefferson City ARMA Chapter does not endorse these sites or their contents. Links are provided for informational purposes only.

South Carolina Archives Technical Leaflets

<http://www.state.sc.us/scdah/techfl t.htm - general>

This is a great site if you are pressed for time but are looking for some quality information on various subjects in records management. Each technical leaflet is concise and well written. Most of the leaflets are in PDF format.

Institute of Certified Records Managers

<http://www.icrm.org/>

Ever wonder what it takes to become a CRM? Well wonder no more.

Check out this site to have all your questions answered.

Trustworthy Information Systems Handbook

<http://www.mnhs.org/preserve/records/tis/tis.pdf>

Developed and published by the Minnesota Historical Society, this book is a great resource for any organization considering a new computer system. This report offers suggestions that organizations can use to ensure that the information system on which they create their electronic records is reliable and trustworthy.

The Cost of Print, Fiche, and Digital Access

<http://www.dlib.org/dlib/february00/kingma/02kingma.html>

Have you been asked about the cost difference between keeping records in paper form verses imaging your records? Well check out this report to take a look at a study completed in 1999 about this cost difference. It's a real eye-opener.

Creating Creative Archiving at Michigan and Leeds: Emulating the Old on the New

<http://www.si.umich.edu/CAMILEON/>

“CAMiLEON is a research project that is investigating emulation as a digital preservation strategy. The project is a collaborative effort of researchers at the School of Information, University of Michigan (USA) and the University of Leeds (UK). . . . CAMiLEON stands for Creative Archiving at Michigan and Leeds: Emulating the Old on the New.”

Answers to last issues quiz:

- | | |
|------|-------|
| 1. e | 6. e |
| 2. c | 7. a |
| 3. c | 8. b |
| 4. b | 9. a |
| 5. d | 10. b |



ARMA International: The Benefits of Membership *

ARMA International is a not-for-profit association serving more than 10,000 information management professionals and 150 chapters in the United States, Canada and over 30 nations worldwide. ARMA International members include records and information managers, MIS and ADP professionals, imaging specialists, archivists, hospital administrators, legal administrators, librarians, and educators. ARMA, its chapters, and its members are dedicated to helping individuals, organizations, and government agencies successfully meet the challenges of the increasingly complex records and information management field.

Contributions or gifts to the Association of Records Managers and Administrators, Inc. are not deductible as charitable contributions for federal income tax purposes.

Benefits Include:

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- Local chapters to connect you to professionals in your geographic area
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- Quarterly newsmagazine, InfoPro, keeps you informed of ARMA activities as well as developments and trends in the records and information management field

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- Industry Specific Groups: 32 ISGs focusing on your industry's issues
- Professional Resources: More than 200 member-discounted RIM resources, including books and videos
- Annual Conference and Expo: Dozens of educational sessions, plus conference proceedings

- Solution Providers and Users: At ARMA's Annual Conference and Expo, as well as local chapter meetings
- The Information Management Journal: In-depth articles by leading RIM and Knowledge Management experts

Professional Development – At Every Stage of Your Career

- ICRM Study Groups and Exam Preparation Resources
- RIM Home Study Courses
- CareerLink Placement Services
- ARMA Salary and Compensation Survey
- Leadership Opportunities - Develop your leadership skills through service on ARMA's Committees and Board of Directors, as well as on Chapter Boards of Directors

* ARMA International.
<http://www.arma.org/membership/membership.htm>.
(30 January 2001).