

# Electronic Recordkeeping Systems Standard (ERKSS) Review

Stephen Clarke  
Senior Advisor  
Digital Sustainability Programme

# ERKSS Review Objectives

- The purpose of the project is to update the product to reflect current and ongoing functionality and specifications.
- Investigate how the ERKSS Standard fits with NZ public sector EDRMS procurement
- Establish whether a new product should cover records held in business systems, or have a multi level approach in the model of the Metadata standard and technical specifications
- Establish whether the 'ICA/ADRI Principles and Functional requirements for records in Electronic Office Environments' or another overseas model can be adapted / adopted for use in the NZ context
- Undertake research into the public sector experience with implementation of EDRMS to provide an evidence based scoping platform for ERKSS redevelopment
- Undertake research on the EDRMS use models both in NZ and internationally

# Three Output Reports

- Report 1: ERKSS Workshop and Scoping Report
- Report 2: EDRMS Interest Group Survey - Basic Analysis
- Report 3: International Environmental Scan - EDRMS Implementation and Procurement Models

# Report 1: ERKSS Workshop and Scoping Report

- Half day workshop 18 February 2009
- Facilitated by Standards NZ
- 22 representatives from:
  - Central govt.
  - Local govt.
  - Vendors / suppliers
  - Contractors
  - Large agencies
  - Small agencies

## The purpose of the scoping workshop was to:

- Establish a broad based working group to review the need for and benefits of the revision
- Clarify what the scope of the Standard should be (ie the purpose of the Standard, what needs to be included or excluded, what value a review will add),
- Identify and agree the scope of a programme to update the requirements and guidance
- Identify issues that would need to be resolved through the review process

## Issues to resolve

- The title of the original Standard was deliberately chosen to encapsulate all forms of recordkeeping systems, but in reality it is mainly used for EDRMS and doesn't effectively cover business systems
- The Standard was developed before the Public Records Act was passed and therefore had not been developed with the mandatory or discretionary requirements of the Act in mind
- Do we need a NZ specific product can an existing overseas mechanism be adopted?

## Discussion Points

- The new product could be published as a suite, with an overarching principles document and then various modules covering specific systems and implementation guidelines
- It would be useful if the Standard provided a number of examples (for example, on how to construct an ERKS for an organisation, how to prepare a RFP)
- Should the Standard have requirements for electronic content management systems (ECM) and other business systems?
- Should the new standard address the migration to new systems and system decommissioning?

# Structural Suggestions (1)

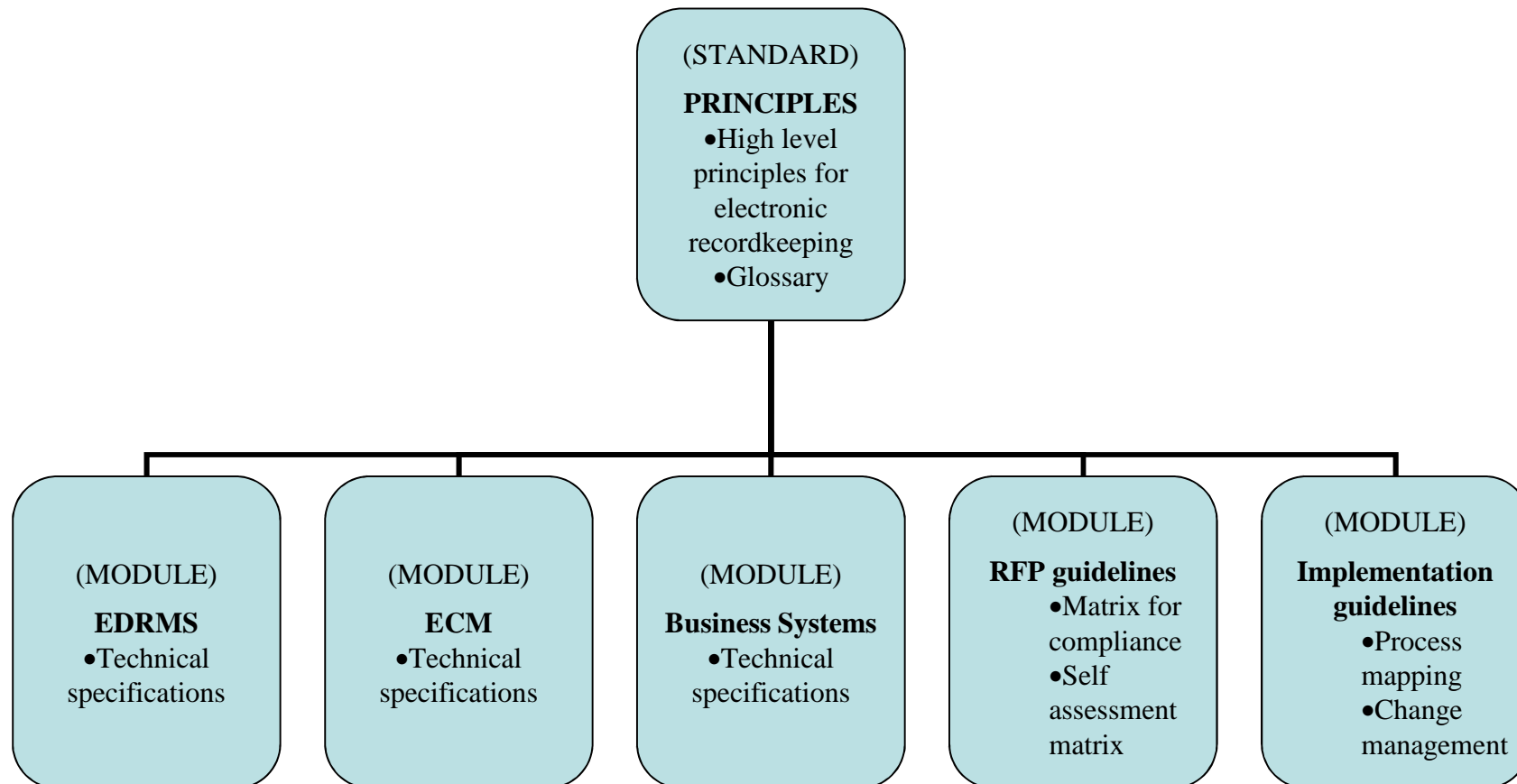
- Split document into overarching Principles Standard with guides / technical specifications for other components
- 'Layer' the Standard to clarify a basic (starting) level of compliance and then additional levels to maintain and improve systems
- Include modules (and attributes) for different systems
  - EDRMS / ECM
  - eMail
  - Business systems (structured and unstructured)
  - Etc....



## Structural Suggestions (2)

- Develop matrix for self assessment
  - Where now
  - Where next
  - What needed at each level
- Maturity model with defined levels
- Develop and RFP guide
- Include a glossary with clear definitions

*Figure 1 – Proposed structure of revised ERKSS and top five suggested accompanying modules*



## Module Element Priorities

- Priority 1 – Module on EDRMS functional specifications
- Priority 2 – Module for Business Systems functional specifications
- Priority 3 – Module on RFP guidelines
- **Priority 4 – Module on implementation guidelines**
- Priority 5 – Module for ECM functional specifications

# Migration & Systems Decommissioning

- The workshop members discussed migrating systems and all agreed that there is a large risk associated with this work.
- The participants agreed that migration is a serious issue
- This is outside the scope of the ERKSS but does not mean the issue will not be addressed
- There is currently an ISO Standard being developed on migration

## Other Comments

- Clear scope statement for each module
- Governance (internal and external) should be covered in the revision, to address accountability issues
- Ensure clarity of purpose
- Clearly identify the audience (including vendors)
- Tiered checklists building in risks
- Principles in the revised Standard need to be linked to other standards and be kept in context

## New title?

Titles suggested for the revised Standard included:

- Record keeping requirements for information systems (R-KRIS)
- Digital unstructured content keeping systems (DUCKS)
- Principle-based electronic recordkeeping systems (PERKS)

## Report 2: EDRMS Interest Group 2009 Survey

- c.18 months from the first 2007 survey
- Similar questions used
- Larger sample as membership has increased
- Full results are limited to members

However Archives was allowed to use the basic anonymised results to assist in the ERKSS review.

- An additional specific question was added on use of standards and guides for EDRMS in NZ

# Public Sector Use of Standards

14) How useful were the following standards and guides in the selection and implementation of your eDRMS? (NB. please tick all boxes that apply)

|   | Very Useful | Somewhat Useful | Not Useful | I Did Not Use This | Don't Know |    |
|---|-------------|-----------------|------------|--------------------|------------|----|
| - Archives New Zealand Electronic Recordkeeping Systems Standard 2005   | 32.2% (19)  | 37.3% (22)      | 1.7% (1)   | 15.3% (9)          | 13.6% (8)  | 59 |
| - Archives New Zealand Electronic Recordkeeping Metadata Standard 2008  | 24.1% (14)  | 36.2% (21)      | 5.2% (3)   | 20.7% (12)         | 13.8% (8)  | 58 |
| - Archives New Zealand Continuum Guide 3: What to Consider Prior to Implementing an IT 'Solution'             | 9.6% (5)    | 34.6% (18)      | 5.8% (3)   | 26.9% (14)         | 23.1% (12) | 52 |
| - European Union Model Requirements for the Management of Electronic Records (MoReq)                          | 3.7% (2)    | 33.3% (18)      | 5.6% (3)   | 37% (20)           | 20.4% (11) | 54 |
| - United States DoD 5015.02-STD: Electronic Records Management Software Applications Design Criteria Standard | 0% (0)      | 22.2% (12)      | 5.6% (3)   | 48.1% (26)         | 24.1% (13) | 54 |
| - ICA/ ADRI Principles and Functional Requirements for Electronic Records                                     | 3.8% (2)    | 15.1% (8)       | 5.7% (3)   | 52.8% (28)         | 22.6% (12) | 53 |



# Public Sector Use of Standards

- The most utilised standard used in NZ for selection and implementation of recordkeeping systems was ERKSS (84.7% of organisations)
- 45% of organisations that used the standard found it 'very useful', and 52 % of organisations found it 'somewhat useful'. Only one organisation found the standard 'not useful'
- Overall, the ERKS Standard has high uptake and influence in the NZ public sector and is broadly found to be fit-for-purpose
- When the overseas models were considered (less than 50%), they were not identified as 'very useful' in general

# High Level Issues identified

- Lack of change management
- Limited integration with other business systems
- Lack of staff uptake and engagement
- Patchy migration from legacy systems
- Lack of support post-implementation both internally and from external providers
- Insufficient high level sponsorship

## EDRMS Used Across the Public Sector (2007)

- The 2007 EDRMS Interest Group survey identified that at least 38 different Electronic Recordkeeping Systems were being used in the public sector
- From a sample of 48 public sector organisations 21 EDRMS and a further 17 proprietary or sector specific systems were in use to manage electronic objects
- A snapshot of one large organisation (+1000) reported having 7 such EDRMS systems running simultaneously across the organisations subsections
- It is probable that the results of this sample are representative across the public sector as a whole

## Report 3: International Environmental Scan

In the NZ context it is worth noting that:

- No eDRMS panel procurement or centralised control processes have been instituted in New Zealand similar to the US, UK or Australian models
- No other mandatory standards have been implemented to standardise and harmonise the specifications, functionality or software platforms of the multiple competing vendor driven eDRMS solutions by any body in New Zealand
- Considering the relative maturity of the RM sector in NZ this is a minority position

# Australasia

## International Council on Archives / ADRI Standard

- Module 1 - Overview and Statement of Principles
- Module 2 - Guidelines and Functional Requirements for Electronic Records Management Systems
- Module 3 - Guidelines and Functional Requirements for Records in Business Systems

Currently adopted by **National Archives of Malaysia** and **National Archives and Records Service of South Africa** amongst others

## Australia (Federal)

- The Australian context has a mixed model of both Federal and State EDRMS use models
- The National Archives Australia (NAA) has the jurisdiction over federal government but no longer has a mandatory monitoring and evaluation EDRMS compliance model whereas the situation at state level is variable
- The *Designing and Implementing Recordkeeping Systems* (DIRKS) compliance was necessary to obtain a Disposition Schedule therefore records disposal and transfer to NAA was predicated on meeting DIRKS

# Australia (State and Territory) PROV

- The Public Record Office Victoria (PROV) runs a compliance program to test systems and products against the Standard for the Management of Electronic Records (usually referred to as the VERS Standard)
- The VERS Standard prescribes a mandatory approach: all Victorian government public sector agencies must manage their electronic records in VERS-compliant systems
- Statements of compliance can be issued for products sold by software vendors (specifically EDRMS) or for systems implemented within organisations as business information systems
- For vendors of IT products, a statement of VERS-compliance is essential in marketing products to Victorian government agencies

## Australia (State and Territory) SRNSW

- State Records New South Wales (SRNSW) has recommended that agencies implement the DIRKS methodology as a recommended discretionary standard
- What is interesting about SRNSW's DIRKS approach is the managing ongoing implementation and post implementation testing
- Recently SRNSW has recently launched The Future Proof strategy to develop discretionary guidance for systems for keeping digital records
- Under The Future Proof SRNSW will develop and issue standards that establish clear minimum requirements for system functionality and metadata, and more detailed specifications to help build or upgrade systems and for records migration



## Australia (State and Territory) SRSA

- In 2004, the State Records of South Australia (SRSA) established a panel of EDRMS products to address the government agencies' desire for more than one choice of solution
- The previous procurement panel accredited one product this had proven to be unpopular with some agencies that did not endorse the 'one size fits all' approach
- The South Australian all of government (EDRMS) Panel of products dictates a panel of approved suppliers and solutions that meet the South Australian Government's Recordkeeping and ICT Technical Standards and commercial requirements or have VERS accreditation
- Many Asian countries use this model

# United Kingdom

- Until 2005, the TNA evaluated products against the 2002 revised functional requirements
- To be eligible for evaluation, a product had to be released and supported in the United Kingdom market and capable of supporting the mandatory requirements as an 'off the shelf' product without significant customisation
- TNA reviewed the need to maintain its UK scheme beyond 2005 and decided to go with trans-national standards (i.e. MoReq2)
- TNA has ceased to run the direct management of the testing scheme as of 2005

## European Union: MoReq2

- Although the UK has recently rescinded its certification model, certification of systems by the European national archives is becoming more common
- For example countries like Norway, Denmark, the Netherlands, Germany and Slovenia have EDRMS approval processes in place
- MoReq2 Certification is until now been mostly applied in Nordic countries (Denmark, Norway, Sweden), but in the UK, Slovenia, Spain, Germany and the Netherlands have and Estonia a certification process has been recently adopted

# MoReq2

The MoReq2 suite of standards has 794 core functional requirements and 13 further optional modules with non-functional requirements. It has a set of highly detailed testing scripts that are utilised for the accreditation programme. The verification of the MoReq2 core modules for a MoReq2 certificate are:

- T3 - Classification Scheme
- T4 - Control and Security
- T5 - Retention and Disposition
- T6 - Capturing Records
- T7 - Referencing
- T8 - Searching, Retrieval and Presentation
- T9 - Administrative Functions

# Norway

- Under the Norwegian Archives Act all EDRMS must have compliance against NOARK 5 (Norsk arkivstandard – Norwegian Standard for Archives) which has been iteratively developed to be compatible with MoReq2 and ISO15489
- The Norwegian National Archive tests individual systems against the standard for use in the public sector.
- Norway has had a standard for electronic records since 1984, NOARK 1, a specific standard for EDRMS was published in 1999, and revised in 2008 as NOARK 5
- All public agencies in Norway have to use systems that comply with this standard for their records management. This approach has lead to a uniform set of EDRMS functionality throughout the public sector
- All public agencies (both state and municipal) have to report to the National Archives when they start using systems for the management of electronic records

## Denmark

- An ERMS cannot be implemented within a public agency until the National Archives has issued an approval
- The system can only operate for a limited period of time, usually 5 years, before a copy of data and documents is transferred to the National Archives. After this, a new approval for the next 5-year period is required
- There are no specific metadata requirements from the National Archives. When files and documents are transferred, all metadata applied by the agency will be transferred as part of the archival version
- The Danish National Archives currently already hold over three Terabytes of born digital archives

## US Department of Defense, DoD 5015.3

- The U.S. Department of Defense, DoD 5015.3, Electronic Records Management Application Design Criteria Standard, serves as the required standard for DoD agencies.
- The National Archives and Records Administration (NARA) currently endorse the new version 3 of the Department of Defense (DoD) Electronic Records Management Software Application (EDRMS) Design Criteria Standard (DoD 5015.2-STD, April 2007) for use by all Federal agencies.
- Configuration is the key in 10 years of DoD testing, no product has been compliant “out of the box.”
- All testing, including those for a DoD sponsor, is performed on a fee-for-service basis.

# International Overview (1)

- There are a range of models utilised throughout the globe. The one common thread however is that they are all based on an underlying standard and/or set of functional specifications
- The range is from setting a high-level discretionary standard to having locked down panel procurement with very detailed testing scripts and from archives and records authorities running compliance testing environments to third party accreditation commercial relationships
- The trend is towards harmonisation rather than developing individual jurisdiction specific standards



## International Overview (2)

- For the more prescriptive testing regime approaches there are three clear stand-outs as being possible global models as convergence occurs:
  - DoD 5015 :3 Compliance Testing Certification
  - MoReq2 Functional Specification Certification
  - VERS Standard accreditation
- MoReq2 seems however to be the most likely to succeed as being the truly global '*de facto*' standard but it is highly likely the other two will retain a firm grip on their regional uptake and audience

## International Overview (3)

- In the discretionary standard environment the ICA/ADRI standard is developing a following outside of the EU/US (already being adopted by Malaysia and South Africa for example and adopted by the International Records Management Trust)
- However ICA/ADRI is broadly aligned with the basic requirements of MoReq2 so could become an acceptable discretionary alternative to full MoReq2 accreditation, it also addresses Business Information Systems which few other standards cover
- Overall there is a weak focus on the post software implementation phase, i.e. an ongoing review and monitoring support module (with SRNSW Future Proof being the exception). This focus is seen in the German and Danish standards but much more from an archival transfer perspective

# Conclusions for ERKSS Review (1)

- Procurement and implementation of EDRMS solutions for public sector has not been co-ordinated or conducted in a collaborative or systematic manner
- There has been considerable duplication of effort and resources through out the public sector generally
- this environment has produced a very inconsistent and mixed message to the New Zealand recordkeeping systems vendor community
- This inconsistency has also encouraged a proliferation of disparate process, systems, standards, technology platforms and stretched the under-developed technical skills base within New Zealand

## Conclusions for ERKSS Review (2)

- Despite the confusing diversity of systems being adopted, it seems that they all encompass a similar core set of functional requirements outlined at the RFP process stage
- Considering this broad range of different products being in place it is unsurprising the two key functionality issues that have been raised are migration to new systems and integration across systems
- The two key non-functional issues raised were post software launch support and a lack of investment in change management
- This would lead to the conclusion that the implementation phase is just as, if not, more important as an issue for the replacement ERKSS product review process to address

## Conclusions for ERKSS Review (3)

- The focus for EDRMS programmes is often weighted in favour of the procurement phase with the implementation phase being seen as a software installation project rather than an information management project
- Change management, business process improvement, user support, and provision for adequate and appropriate system maintenance are an ongoing requirement often not embedded in the project planning
- However the software/hardware components often consume the majority of the project resources and attention.
- The post implementation phase is of crucial importance

# Any Questions?



Courtesy National Archives of Australia

