Using DoD 5015.02-STD Outside the Federal Government Sector

A Technical Report
prepared by
ARMA International
and registered with ANSI

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TABLE OF CONTENTS

FOREWORD

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Rationale

The UC Berkeley School of Information Management and Systems drew attention to the growing need to manage information more effectively. In 2000 and again in 2003, UC Berkeley issued a report called *How Much Information?* The 2003 report stated that:

> *The United States produces about 40% of the world's new stored information, including 33% of the world's new printed information, 30% of the world's new film titles, 40% of the world's information stored on optical media, and about 50% of the information stored on magnetic media.*

The school also found that over 96% of business information is in digital format, 1% is on paper and that 70% is never printed.

The implication for the records and information management (RIM) profession is that records managers need to manage information more effectively, and that many of the principles applied to the management of paper records no longer apply in our electronic world. Electronic records management (ERM) system tools can aid greatly in meeting the information management challenge.

The need for ERM policies and tools became apparent to the U.S. Department of Defense (DoD) in the early 1990s following Congress's high-profile investigation into the Gulf War Syndrome. The numerous inquiries into the cause of the illness required officials to produce millions of records from Operation Desert Storm. Congress concluded that the Defense Department did not do a good job of managing the records and that many of the needed records had been destroyed or lost. Congress then ordered the Defense Department to improve its records management capabilities.

In 1993, the DoD created a task force to begin the work of re-engineering its internal records management processes. In 1995, the task force published the *Functional Baseline Requirements and Data Elements for Records Management Application Software.* It serves as the cornerstone canon for the specification of functional requirements and data elements for ERM applications. The report was further developed into a testable and measurable design criteria standard by the Defense Information Systems Agency (DISA). DISA clarified the report's requirements, added testable criteria, and published the first version of DoD 5015.02-STD, *Design Criteria Standard for Electronic Records Management Software Applications,* in 1997.

At that time, there were few vendors who developed and marketed electronic recordkeeping systems. Today there are hundreds. Over the years, the one constant that distinguishes effective electronic recordkeeping systems is receiving DoD 5015.02-STD certification. It specifies hundreds of detailed requirements that electronic recordkeeping systems must meet. In order to achieve certification, systems must receive a passing mark in each and every mandatory requirement. This stringent test serves to separate serious records management solutions from products that provide only a partial set of tools to manage records electronically. DoD 5015.02-STD certification has become a vehicle for granting a *de facto* seal of approval on ERM software products.

The first two versions of the standard compelled the ERM vendors to supply tools to automate the following records management functions:

- Organizational records series
- Organizational file plans
- Organizational disposition instructions
- Retention calculation
- Access controls
- Security classification markings
- Management of records stored in electronic formats
- Management of e-mails and attachments in electronic formats
- Linking of records to supporting materials
- Tools to aid the search and retrieval of records
- Records destruction in a manner that prevents recovery

Version 3 of the standard was published in 2007. It added the following requirements:

- Freedom of Information Act (FOIA)/Privacy Act workflow requirements
- Vital records review cycles
- Additional metadata, including for e-mail, PDF, digital photographs, images, and Web records
- Greater data security and integrity
- Capability to create alerts and notifications regarding changes in metadata fields
- More automatic linking requirements
- Capability to restrict metadata access based on the contents of fields
- Tools to support interoperability between records management applications
- Additional transfer requirements
- Data discovery requirements
- Interface and behavioral requirements for integration with electronic document management systems

Among the most important additions to version 3 of the standard are the requirements supporting net-centric, information-sharing principles. The new requirements are intended to ensure that record management applications support DoD goals to make records:

1. Visible by developing and registering standardized metadata
2. Accessible through Web services with usable, standardized interfaces
3. Understandable through the availability and use of rich metadata describing the records and their context

Version 3 of the standard, as well as other emerging standards, require the records management vendor community to migrate toward providing standards-compliant services in larger, service-oriented architectures in order to achieve broader information sharing. This is the direction that the industry is taking to achieve open and improved information sharing.

ACKNOWLEDGMENTS

► 1   Purpose

The importance of electronic recordkeeping systems to information governance has greatly increased as businesses (both public and private) and government agencies have moved their records and communications from traditional paper-based systems to electronic systems. Electronic information systems were not designed as recordkeeping systems. Therefore, many organizations have been hard-pressed to provide trustworthy electronic records in a timely fashion in response to litigation, to track decision making, or to provide sufficient accountability to their constituencies. The U.S. Department of Defense (DoD) certification process is designed to test, evaluate, and certify that an electronic records management (ERM) system meets the rigorous requirements of DoD 5015.02-STD, *Electronic Records Management Software Applications Design Criteria Standard.* Achieving certification is like achieving the "Good Housekeeping Seal of Approval" and signals that the vendor product provides the tools necessary to manage electronic (as well as paper-based) information in an effective manner.

This technical report is designed to assist non-federal government agencies, for-profit companies, and non-profit groups (henceforth collectively called "organizations") to achieve the outcomes of DoD 5015.02-STD by:

- Providing implementation-related information on the management of electronic records
- Detailing which requirements are considered to be relevant or non-relevant to organizations

- Describing how to take advantage of the features provided in a records management application
- Identifying gaps in the standard's requirements, where records management functions such as bar coding, folder and box labels, physical records tracking systems, integration with offsite storage facilities, and development of (mandatory) destruction certificates are not addressed

DoD 5015.02-STD requires vendor products to manage records in physical as well as electronic formats/media. That could be interpreted to mean that the vendor product must merely provide the capability to create a profile (metadata representation of a physical record) and to include its physical location. The standard does not provide guidance beyond that. This technical report purports that the systems for management of physical records should also include capabilities for using bar codes and labels and for tracking, check-in, check-out, and inventorying.

The third version of DoD 5015.02-STD was released in April 2007 and provides implementation and procedural guidance on the management of records in the U.S. DoD. It sets forth mandatory baseline functional requirements for records management application software used by the DoD in its records management programs. It defines required system interfaces and search criteria that records management applications shall support and describes the minimum records management requirements for National Archives and Records Administration (NARA) regulations.

It is important to note that the purpose of the DoD standard is to guide development of ERM systems, which may also be referred to as records management applications. Many organizations have cited the functional requirements defined in the DoD standard as the basis for procuring an ERM system or application. Readers are encouraged to identify their organizational needs, which may vary by industry, and relate them to these requirements.

This technical report specifically targets organizations outside the realm of the federal government and is designed to provide explanation, as well as implementation options, to allow those organizations to achieve the outcomes of DoD 5015.02-STD. Readers should obtain a copy of the standard to use in concert with this publication. (Available at: *www.dtic.mil/whs/directives/corres/html/50152std.htm*)

Records and information management (RIM) professionals can use this document to better understand the features of DoD 5015.02-STD that apply to their organizations. In all organizations, sound records management is good business practice. Records management allows for greater efficiency, accountability, and legal compliance. In addition to these benefits, effective recordkeeping practices aid organizations in supporting the overall integrity of records and in capturing records of significance for use not only for current administrative purposes, but also as components of repositories of institutional memory.

It is assumed that:

- ERM systems/applications do not create records, but manage an organization's electronic records.
- Organizations implementing an ERM system have a basic records management program in place, e.g., a records retention schedule and filing classifications.

This document can be used by:

- ERM system users and potential users as a basis for:
  — Preparing a request for information (RFI) or request for proposal (RFP)
  — Evaluating existing ERM systems

- Education and training providers as a:
  — Teaching resource
  — Reference document for preparing records management training
  — Course material

2

- ERM system suppliers and developers to:
  - — Guide product development by highlighting the functionality required
  - — Use as a basis for discussion with potential clients

- Records management service providers:
  - — To guide the nature of the services to be provided
  - — As an aid in specifying the services to be procured

▶ 2   Definitions

Definitions of terms used within DoD 5015.02-STD, *Electronic Records Management Software Applications Design Criteria,* may be found within the standard. For alternative definitions to terms used in DoD 5015.02-STD, readers are encouraged to consult ANSI/AIIM TR2-1998, *Glossary of Document Technologies,* and the ARMA International *Glossary of Records and Information Management Terms,* 3rd edition.

▶ 3   Mandatory General Requirements

Records management governing documents frequently encompass organizational policies and procedures with custodianship at the departmental level. At a minimum, key definitions, retention policies, metadata preservation requirements, legal hold orders, e-mail policies, and user expectations and responsibilities are major components. These documents often reference records management application software as a compliance tool or vehicle configured to reinforce adherence to the afore-mentioned policies and procedures. Specific metadata requirements are most often integrated into the records management application design.

Most organizations also take into account the user experience, internal and external legal requirements, and industry-related best practices to satisfy their site-specific needs. Examples of site-specific needs are the capability to capture, store, manage, retrieve, and appropriately dispose of any form of media (electronic or physical) defined as a record. Expectations and guiding principles are reinforced through training, frequent communication with the end users, and periodic audits to monitor compliance.

The general and detailed mandatory requirements of DoD 5015.02-STD (section C.2) are relevant to any records management application, and other than the specific DoD sections noted below, will be applicable to any industry.

C2.1.3 Meta-Tagging Organizational Data

This section requires the records management application to allow discovery meta tagging. The *DoD Discovery Metadata Specification (DDMS)* defines a core layer of four meta tag groups, which identify security, resource, summary content and format, and an extensible layer for adding a schema for additional meta tags. All core elements are for keywords that could apply to any organization. Keywords could be adapted, for example, to organizations that operate in different geographic regions or different buildings within the same region.

C2.1.5 Accessibility

This section references Section 508 of the *Disabilities (Rehabilitation) Act.* While Section 508 applies to government software systems, the accessibility requirements would be beneficial for any company concerned about software accessibility for employees or customers with disabilities.

In addition, organizations may want to examine the *W3C Web Content Accessibility Guidelines (WCAG) 2.0* requirements and adapt them to their own needs.