Electronic Document and Records Management
Business Requirements Summary
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Electronic Document and Records Management (EDRM) Business Requirements Summary

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1. Introduction

1.1 Purpose

The primary purpose of this document is to set the requirements for the Commission to appropriately manage its electronic records. These requirements will create a benchmark which can be used to evaluate the acquisition and implementation of an Electronic Document and Records Management (EDRM) system or solution that offers an integrated records management and document management tool set. As a result of this initiative, all employees will have the ability to manage and search electronic and physical (hard copy) documents and records in a consistent manner from their desktops or via a web browser. While not a "requirement", the overarching principle is that the Commission will prioritize user experience (i.e., user-friendliness), specifically the ability to embed EDRMS functionality into user processes as seamlessly as possible.

1.2 Background

The Commission wishes to significantly improve its capability to manage the electronic documents and records in its possession. A key objective is to establish an infrastructure for effectively managing all Commission records in a consistent, logical manner, from creation to final disposition, using a common set of tools, standards, and policies.

2 Current Process

Processes and/or workflows being addressed by the EDRM system include:

- Maintenance of the Operational Records Classification System (ORCS) and Administrative Records Classification System (ARCS) classification and retention schedules;
- Application of ORCS and ARCS retention schedules to Commission electronic and hard copy information;
- Replacement of networked shared drives for managing electronic business and program records; and
- Replacement of excel spreadsheets and hard copy file lists for tracking and searching offsite hard copy collections.

System Scope

2.1 Business and Technical Objectives

The key objective of this specification is to provide an EDRM system capable of controlling the creation, use and final disposition of electronic and hard copy records across the Commission. The EDRM must be able to schedule records using the Commission's standard system for classification, retention and disposition, including the Administrative Records Classification System (ARCS), Operational Records Classification Systems (ORCS) and other approved records schedules.

2.2 Scope

The scope of the project is the management of records stored within networked shared drives and the offsite records holdings tracked within spreadsheets and file lists.

2.3   Risks and Issues

Resources & Funding
Additional resources for FTEs and well as application and development costs may be prohibitive depending on the variances identified with existing or planned technology solutions.

Education & Training
Management of change is a risk by altering how users access and manage their information. Moving information from one form of data structure and technology application to another raises the risk that some of the information content or context will be lost therefore hindering the ability to find and work with the information. Therefore, elements such as education, training and communication must be managed as part of the overall migration to EDRM.

File Plan
Context is often provided by the position of the information in the file plan or filing structure. This can help the user understand what business purpose the information serves. Information can become unusable without this additional context. A lower-level folder titled simply with a date, for instance, tells the user very little about its contents. To maintain the context of the information in the form of its location in the original file plan or organization structure, there is a need to ensure that this contextual folder structure can be migrated alongside the content or hold this information in a metadata field or new file naming standard.

Metadata
There is a risk that the default system generated metadata will be altered upon migration to the EDRM system. Last modified date and author are two examples of metadata that may become critical pieces of metadata that will require consideration based on the records collections.

Embedded Objects and Links
There is a risk that by migrating documents to an EDRMS, embedded objects and links between documents and attachments could be lost. There is no standard way of exporting this information, which is usually created and managed internally in a way that is not designed for import into another system. Examples include spreadsheets linked to other spreadsheets within another network folder, between a document and associated charts or graphics, links to external websites and databases and directory shortcuts.

Security Classifications and Permissions
Appropriate security controls must be assigned to prevent risk of breaches of confidentiality or disclosure of sensitive information.

2.4   Constraints

Capacity to retroactively align legacy IT system are limited although future systems will be developed to ensure compliance with Commission records governance requirements.

3 Requirements

Requirements have been grouped into sections based on their business objectives. Each section contains well-defined requirements and priorities.

Legend

Legend provides details on how individual requirements are defined in this document.

Req ID	*Requirements identification number*
Title	*Requirement title*
Project Priority	*Priority of each individual requirement [Mandatory, Desirable]*

3.1   Functional Requirements

The requirements address the business objectives gathered from the BCOGC.

Req ID:	1.0	Title:	Basic Requirements	Project Priority
1.01 Fully integrated document and records management functions for electronic and hard copy records available on desktops and web browsers.				Mandatory
1.02 Support management of records including but not limited to MS Office, Outlook, images, voicemail, desktop publishing, graphics, facsimiles, scanned documents, voice files, video files, digital schematics and maps.				Mandatory
1.03 Enable the authenticity, integrity, stability, and accessibility of electronic records over time, across systems and across formats.				Mandatory
1.04 Maintain standard metadata about electronic documents and files.				Mandatory
1.05 Maintain audit trails of actions taken on records.				Mandatory
1.06 Maintain the classification systems, i.e. enter new classifications, flag classifications as draft, and change to approved, change a retention that is already applied to a record, office of primary responsibility (OPR/NON-OPR) tags, etc.				Mandatory

Req ID:	2.0	Title:	Identifying and Documenting Records	Project Priority
2.01 Records must be classified in accordance with the established ORCS/ARCS classification systems.				Mandatory
2.02 When classified, the appropriate retention schedule must be applied.				Mandatory
2.03 Support the determination of the office of primary responsibility (OPR).				Mandatory
2.04 Allow for inheritance of records classification through parent and child relationships of folders or document containers.				Mandatory
2.05 Support the management of hybrid files containing both hard copy and electronic components in an integrated manner.				Mandatory
2.06 Support confidential data elements for protection of classes or sub-sets of records for public release.				Mandatory
2.07 Capture all the volumes relating to a file.				Mandatory
2.08 Allow for profile information to be amended or corrected.				Mandatory
2.09 Allow for creation of cross-references or 'see also' type of links between related files.				Mandatory

Req ID:	3.0		Title:	Metadata		Project Priority
3.01 Establish mandatory profile metadata for records including: unique identifiers, classification codes, file name, create date, modified date, date range of records, author.						Mandatory
3.02 Support specific sets of metadata elements for different types of electronic records i.e. UWI for well files.						Mandatory
3.03 Support specific sets of metadata elements for physical folders i.e. location for physical records, first and last dates for a physical volume, box number, accession numbers for off-site transfers.						Mandatory
3.04 Support multiple formats for metadata including free form text, alphanumeric, numeric, dates, logical (y/n, true/false).						Mandatory
3.05 Support inherited metadata elements.						Mandatory

Req ID:	4.0		Title:	Document Management		Project Priority
4.01 Support the checking in, locking or checking out of documents for editing by multiple users.						Mandatory
4.02 Support version control - allowing the user to determine whether minor or major versions are to be captured.						Mandatory
4.03 Issue a warning if a user attempts to save a document that has already been saved in the same file.						Mandatory

Req ID:	5.0		Title:	Preservation of Records		Project Priority
5.01 Records must be maintained on media and in formats that ensure they are readable and accessible for the duration of their active and semi-active retention periods.						Mandatory
5.02 Records scheduled for full or selective retention must be maintained on stable media appropriate for permanent retention.						Mandatory
5.03 The record format or media must be stable and not compromise the Commission's responsibilities or ability to use the information.						Mandatory
5.04 Document formats supported should be extendable as new formats are introduced.						Desirable
5.05 Profile information must be linked to records in a way that ensures they are identifiable and authentic, and the context of their creation and use is maintained.						Mandatory
5.06 Records moved to different media or electronic records moved to another custodian must maintain their context and authenticity.						Mandatory

Req ID:	6.0		Title:	Retention Scheduling		Project Priority
6.01 Support retention periods based on time (calendar year, fiscal year, trigger events or event / time retentions).						Mandatory
6.02 Designate active status at the file level and apply to all volumes.						Mandatory
6.03 Allow authorized users to change disposition assigned to a file at any time during its entire lifecycle.						Mandatory
6.04 Change file status when the active retention period elapses or when a defined trigger event occurs.						Mandatory
6.05 Provide 'scheduling date' to be set at the end of the scheduled active retention period - used to calculate when the file is eligible for final disposition.						Mandatory

6.06 The date of the last record of a file may or may not be the same as the date on which the file's active retention period elapses.	Desirable
6.07 A file with a semi-active retention period of "nil" (i.e., there is no semi-active retention period) moves to the end of its active and semi-active status at the same time.	Desirable

Req ID:	7.0		Title:	Transferring Records		**Project Priority**
7.01 New location of a file or volume must be captured.						Mandatory
7.02 Volumes of one file may be transferred together or individually.						Mandatory
7.03 Accession information must be captured for physical off-site storage facilities.						Mandatory

Req ID:	8.0		Title:	Final Disposition		**Project Priority**
8.01 Support final disposition types such as Destruction, Full Retention, Selective Retention or Other Disposition.						Mandatory
8.02 Calculate retention periods and eligible disposition dates from 'scheduling date'.						Mandatory
8.03 Permit authorized users to suspend retention periods and final disposition by applying a Hold that affects all components of a file or classes of files and permit them to lift a Hold.						Mandatory
8.04 Authorize final disposition by designated individual(s).						Mandatory
8.05 Apply final disposition to the entire container when files are stored in boxes or containers.						Mandatory
8.06 Calculate disposition date for box based on file with the longest retention.						Desirable
8.07 Permit destruction of electronic files so that they cannot be restored by use of a data recovery facility.						Mandatory
8.08 Support batch destruction or transfer upon authorized approval and confirmation.						Mandatory
8.09 Export whole electronic files without degradation, with metadata and associated file volumes.						Mandatory
8.10 Retain all electronic files until confirmation of successful transfer.						Desirable
8.11 Retain selected metadata for files destroyed or transferred.						Mandatory

Req ID:	9.0		Title:	Redaction		**Project Priority**
9.01 Prompt the creator of a redacted document to assign it to a file and store a cross reference to the original, potentially the same file or volume as the original record - even if record is closed.						Desirable

Req ID:	10.0		Title:	Workflow		**Project Priority**
10.01 Support the scheduling, review and transfer process by tracking progress of review, records awaiting disposal, records awaiting transfer.						Mandatory
10.02 Support records scheduling disposition including review of records due for destruction, export of electronic files for permanent preservation and destruction of electronic file contents.						Mandatory
10.03 Initiate the disposal notification workflow to named users as specified once retention period has been reached and allow them to mark the file for deletion, transfer or change the retention period and record comments.						Mandatory

10.04 Support the construction of workflows for ad-hoc processes by authorized individuals.	Mandatory

Req ID:	*11.0*		**Title:**	*Reporting*		**Project Priority**
Ability to produce reports on multiple, user defined parameters including, but not limited to the following: • File contents, both hard copy and electronic with or without attributes • Classification and retention schedules • Files to which a specified retention schedule is assigned • Files to which a specified classification is assigned • Files to which a specified OPR is assigned • All files eligible for transfer or disposition • Frequency of retention period report, information reported and exceptions such as disposals overdue • Documents and all links for which it is a destination. • Records destruction of both electronic and physical records • Records marked for permanent preservation, export or transfer • Search parameters and results • Term stores or metadata values • Audit trails • Box content lists • Records designated for File Holds • Management reports of statistics, usage, etc.						Mandatory

Req ID:	*12.0*		**Title:**	*Searching*		**Project Priority**
12.01 Allow searching by classification codes, enterprise wide or 'from here', metadata, full text searching.						Mandatory
12.02 Include searching of electronic and hard copy collections.						Mandatory
12.03 Allow searching for free-text, Boolean, wild card, proximity, saved searches, refine searches, time intervals, full text.						Mandatory
12.04 Display or save the search results.						Mandatory
12.05 Do not display search results if the User does not have permission to see or access results.						Mandatory

Req ID:	*13.0*		**Title:**	*Migration and Bulk Loading*		**Project Priority**
13.01 Provide capability for authorized users to bulk load pre-existing hard copy file and volume records, electronic records and pre-determined metadata values.						Mandatory
13.02 Support the rendition of records marked for transfer or export in XML, TIFF or CSV formats.						Mandatory
13.03 Allow bulk conversion of records (with their metadata and audit trail information) to other media or systems in line with the standards relevant for the formats in use.						Mandatory

3.2 Non - Functional Requirements

The requirements may originate from leveraging the Commission's hardware and software. Requirements may also address the technical and business objectives gathered from the Commission.

3.2.1 Audit Logs

These requirements will be specific to ensuring that systems can be monitored.

Req ID:	AL 1.0	Title:	Auditing Logs	Project Priority
AL 1.01 Ability to monitor system including: • Authorized Access (UserID, Date/Time, Event Type, Resource Access) • Privileged Operations (Admin accounts access, System start/stop) • Failed access alerts (logon, data access)				Mandatory
AL 1.02 Retain audit trail information for as long as required				Mandatory

3.2.2 Security Controls

These requirements will be specific to ensuring that system/data access is restricted as required, and define authentication approach.

Req ID:	SC 1.0	Title:	Security Controls	Project Priority
SC 1.01 Restrict access in the system to authorized users.				Mandatory
SC 1.02 Allow for predetermined security policies assigned to records categories.				Mandatory
SC 1.03 Access restrictions based on security group membership (functionality and data.)				Mandatory
SC 1.04 Allow users to grant access to other users or groups to allow access to records for which they are responsible.				Mandatory
SC 1.05 Do not allow a user to view or include search results for which the user does not have rights to access.				Mandatory
SC 1.06 Integration with authentication methods for access to EDRM.				Mandatory
SC 1.08 New database security groups.				Mandatory
SC 1.09 Must support authentication with M365.				Mandatory
SC 1.10 Must use SSL for all traffic.				Mandatory

3.2.3 Input Data Validations

Req ID:	ID 1.0	Title:	Input Data Validations	Project Priority
ID 1.01 These requirements will be specific to ensuring that the quality and validity of the data input into the system is enforced, for example: • Limit field to specific data ranges • Define data types • Identify if field is mandatory or non mandatory • Identify if NULL value acceptable • Where applicable, define a finite list of acceptable values				Desirable

- Verify plausibility of value where possible
- Ensure key data cannot be overwritten or edited unless required – if required, audit functionality requirements should be gathered

3.2.4 Web Interface Design Requirements

These requirements will define standard look and feel for application interfaces (not all will always apply), for example:

Req ID:	WI 1.0	Title:	Web Interface	Project Priority
WI 1.01 Must display the Commission (BCOGC) logo in the header				Desirable
WI 1.02 Must provide link to BCOGC main website in footer				Desirable
WI 1.03 Must display BCOGC Copyright in footer				Desirable
WI 1.04 Must use BCOGC color scheme of olivedrab (#679147), midnightblue (#00456a) and white (#ffffff)				Desirable
WI 1.05 Must support HTML5 compatible browsers				Desirable
WI 1.06 Must scale to support mobile-friendly browsers				Desirable

3.2.5 Confidential Data Requirements

If the system manages or presents any 'confidential data', requirements must be defined to confirm they are managed appropriately.

Req ID:	CD 1.0	Title:	Confidential Data	Project Priority
CD 1.01 Ensure confidential data (security) requirements limit access to those who should be able to view this data; or need to ensure no confidential data requirements are presented. i.e. Payroll, HR, personnel records, third party landowner information.				Mandatory