



THE HOUSING DEVELOPMENT AGENCY EDRMS FUNCTIONAL SPECIFICATION V1.1

1 SCOPE

This Functional Specification details the features and requirements of the Housing Development Agency Electronic Document and Record Management solution. It describes the various modules and features required. It is based on the ICA Guidelines and Functional Requirements for Electronic Records Management Systems.

(https://www.naa.gov.au/sites/default/files/2019-09/Module%20-%20-%20ICA-Guidelines-rinciples%20and%20Functional%20Requirements_tcm16-95419.pdf)

As records start their journey as documents the system must facilitate the creation and capture of various document types that transition into records. Thus, the term **Record** used here includes **Documents** that are the beginning of the Lifecycle of a Record.

ELECTRONIC DOCUMENT AND RECORDS MANAGEMENT SYSTEM HIGH LEVEL FUNCTIONLITY

Basics	Advanced	Additional
<ul style="list-style-type: none">• Creation/Review/Approval• Version Control• Security/Access Control• Content Searching & Indexing Capability• Supports Multiple File Types• Distribution• Alerts/Notification• Backup/Recovery• Reports/Metrics	<ul style="list-style-type: none">• Auto-Classification• Web Access• Scanning• Office Integration• Office Automation/Workflow• Email Integration• Digital Signatures• Records Management• Calendar/Contacts/Tasks• Admin Panel	<ul style="list-style-type: none">• Optical Character Recognition (OCR)• Document Control• ERP/GIS/TOOLS Integration• Revision Control• Linking



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Briefly **Basics** consist of -

- **Creation/Review/Approval** - could be creation of document within the system; email received; scanned hardcopy; document sent for comments and/or approval.
- **Version Control** - the norm for a DMS is to just have one method of updating documents; however, should be able to differentiate between current approved (1.0) and minor changes during the lifecycle (1.3) until the next version (2.0).
- **Security/Access Control** - managed by means of licencing and who has access to what and to what level across functions; all users should be able to at least identify everything except confidential information which should be restricted to a small number of employees.
- **Searching/Indexing Capability** - indexing allows faster searching of a smaller targeted data set.
- **Supports Multiple File Types** – about 122, but there are more (https://en.wikipedia.org/wiki/List_of_file_formats)
- **Alerts/Notification**- built-in notification & alerts are sent out when a task is assigned, due or completed.
- **Backup/Recovery** - standard protocol determines scheduled, what and when and in the event of a disaster to recovery the system and data and files.
- **Reports/Metrics** - standard and customised management reports.

Briefly **Advanced** consist of -

- **Web Access** - Immediate web-based access to documents by authorised personnel from any location
- **Scanning** – can be MFP's external to internal full system integration driven from within the system.
- **Office Integration** - full launch of Office documents within the system in native format with check-out & check-in manages changes.



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- **Office Automation/Workflow** – automating of all aspects of the modern office such as the creation of electronic documents, preparing tasks, registration of original paper correspondence, approval, and execution control, etc. Improves productivity and efficiency of employees.
- **Email Integration** - allows email in & out to external/internal Inbox with tracking and auto-routing.
- **Records Management** - both the creation of records by the system and the receipt, indexing, storage, retention and disposition.
- **Calendar/Contacts/Tasks** - all the associated external tools within the system to manage.
- **Admin Panel** - the ability to interrogate via templates and dashboards for management & reporting requirements.

Briefly **Additional** consists of -

- **Optical Character Recognition (OCR)** – to facilitate scanned documents and saved into the database thus allowing full text retrieval.
- **ERP Integration** - automatic send & delivery of records directedly into the system.
- **Digital Signatures** - system to allow conversion of documents into PDF and facilitates electronic signatures of letters, contracts, etc. in compliance with the terms of the ECT Act No 25 of 2002.
- **Linking** - the ability to connect a number of items that are related in nature such as an incoming letter and the replying letter or Portfolios of Evidence.
- **Revisions** - the ability to allocate versions and revisions to complex documents



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Business Area Scope

All standards and processes defined within this project, which directly affect all HDA business units (both in Head Office and Regions), systems, processes, and policies that create, consume, and share documents and records in all forms.

In-Scope

- Effective, efficient, and economical management of physical and electronic records
- Digitalisation and migration of vital physical records
- Ensuring that document and records management system complies with the records management policy.
- Establish, maintain and manage file plan classification, retention, and disposition requirements for records.
- Effective implementation of record holds
- Alignment of records management processes and standards
- Enabling access restriction to records

Solution characteristics

- **Authentic** - the records can be proven to be what it purports to be
- **Reliability** - the record can be trusted to be a true reflection of a transaction to which it attests
- **Integrity** - the record is complete, protected, and unaltered, against any unauthorised access. Records that have been destroyed have been destroyed according to a set of well-defined principles and these principles have been adhered to
- **Usability** - the record can be located, retrieved, and shared



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Assumptions

- All business units adhere to the Records Management policy, framework, procedures and standards

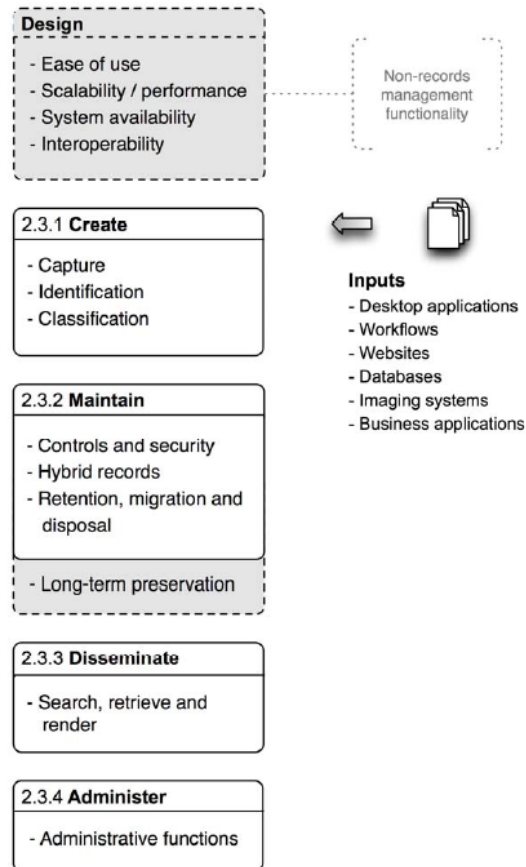
Dependencies & Impacts

- Successful implementation of standard document management functionality
- Any changes on requirements that affect the scope will be dealt with through a change request process.
- Internal and external dependencies will be logged and quantified based on their impact, scope, time, and cost.

2 FUNCTIONAL REQUIREMENTS

This section provides a list of detailed functional requirements for the EDRMS. The functional requirements listed in this section define the behaviour and/or activities that the desired solution must or should possess.

: Model of high-level functional requirements for electronic records management systems





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FILE PLAN MANAGEMENT

As the file plan is the heart of the HDA records management system the following functionality **must** be delivered.

High level requirements

1. The EDRMS must support the creation, maintenance, and adaptation of an electronic file plan to which all electronic records will be classified at the time of creation or ingestion, by allocation to a folder within the file plan.
2. The EDRMS must provide consistent and predictable structuring principles for the electronic file plan, including at least a three-level hierarchical structure, and support for both numerical coding and a text-based naming system.
3. The EDRMS must support the concept of open and closed electronic parts, as subsidiary and discrete sub-groupings within an electronic folder, delimited according to rules specified at installation; and the concept of open and closed electronic folders inclusive of their constituent parts.
4. The EDRMS should be capable of classifying an electronic record by multiple entries within a folder structure and must then manage the referential integrity of all index data.
5. The EDRMS must be able to retrieve electronic records by search of record metadata, and electronic folders or groups of folders by search of folder metadata; and must enable navigation through the folder structure.
6. The EDRMS must be able to retrieve a complete electronic folder and all the electronic records which have been allocated to the retrieved folder, as a whole group, and present these distinctly from any other retrieved folder.

Detailed requirements

Minimum requirements

7. The EDRMS must support an electronic file plan, consisting of electronic folders and electronic folder parts, to one or more of which all electronic records must be classified by completion of the process of declaration.
8. The EDRMS must support a hierarchical electronic file plan, with a minimum of three electronic folder levels below the root level. An electronic folder must link, in a parent-child relationship, either to one or more electronic folders at a lower level, or to one or more electronic parts at a lower level, but not to both folders and parts. An electronic part must only contain electronic records.



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9. The EDRMS must provide at least two naming principles for electronic folders in the file plan:
 - a mechanism for allocating a structured numerical reference code to each electronic folder
 - a mechanism to allocate a textual folder title for each electronic folder both of which principles which can be separately applied in the same system.
10. The EDRMS must ensure that each electronic folder within the file plan can be uniquely identified by the full path of the numerical reference and text name (that is, the full name or code including all folder names or numerical codes at a higher level); but allow repetition, at different points in the file plan, of a folder name which represents only one segment of a full path name.
11. The EDRMS must support the initial construction of an electronic file plan (as part of the installation process) prior to, and in readiness for, the declaration or import of electronic records.
12. The EDRMS must allow the addition of electronic folders at any point within the file plan structure and record the date of opening of the folder; and should be able to restrict this ability to authorised users.
13. The EDRMS must allow the addition of electronic parts to any electronic folder which is not closed and should be able to restrict this ability to authorised users.
14. The EDRMS must support the concept of open and closed electronic parts; only the most recently created part within a folder will be open and all other parts within that folder will be closed.
15. The EDRMS must prevent the addition of electronic records to a closed part.
16. The EDRMS must allow an electronic folder to be closed, by a records administrator, to prevent the further addition of electronic records or parts to that folder.
17. The EDRMS must allow an authorised user (at records administrator level and above) to open a previously closed folder or part for the addition of records, and subsequently to close that folder or part again.
18. The EDRMS must allow an electronic folder and its parts, or a hierarchical group of folders and their parts, to be relocated to a different position in the file plan by a records administrator and must ensure that all electronic records already allocated to that folder and part remain so allocated following the relocation.
19. The EDRMS must allow an electronic record to be re-located to another electronic folder part and must be capable of restricting this ability to records administrator level.
20. The EDRMS must prevent the deletion of an electronic folder and its contents at all times, with the exceptions of:
 - destruction in accordance with a disposal schedule



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- deletion by a systems administrator as part of an audited procedure.
21. The EDRMS must support the use of folder level metadata and must restrict the ability to amend folder metadata to records administrator level and above.
 22. The EDRMS must allow an electronic record to have multiple entries in the file plan, each entry being in a different electronic folder.
 23. Where multiple entries are achieved by use of a pointer system, the EDRMS must be able to manage the integrity of all pointers or references, to ensure that:
 - all references or pointers link to a valid destination
 - removal (by export, transfer or destruction) of a destination also removes all linking references, unless an intervention action is taken.
 - change in location of a destination also redirects any linking references.
 24. The EDRMS must be able to search for and retrieve a complete electronic folder, or folder part, and all its entries, and display all, and only, those entries in the context of that folder as a discrete group and in a single retrieval process (that is, provide 100% recall and 100% precision of the entries in a specified folder or part).
 25. The EDRMS must be able to search for, retrieve and display a set of electronic records taken from many different folders by specifying values to be searched for in electronic record metadata.
 26. The EDRMS must be able to search for, retrieve and display an electronic folder by all implemented naming principles, including:
 - a folder title text
 - a folder numerical reference code.
 27. The EDRMS must support browsing and graphical navigation of the file plan structure, and the selection, retrieval and display of electronic folders and their contents through this mechanism.

Desirable requirements

28. The EDRMS should support multiple electronic file plans.
29. The EDRMS should support a distributed electronic file plan which can be maintained across a network of electronic record repositories.



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30. The EDRMS should support an optional folder naming mechanism that is based on controlled vocabulary EDRMS, and relationships drawn from a thesaurus.
31. The EDRMS should support the allocation of controlled vocabulary EDRMS and relationships, as descriptive folder metadata subject EDRMS in addition to the folder name and numerical reference code.
32. When creating a new electronic folder in a file plan which uses a structured numerical coding reference, the EDRMS should automatically generate the next sequential number available at that position within the file plan.
33. The EDRMS should validate the name – numerical code or textual title – as it is allocated to a newly created electronic folder, according to validation rules specified by the systems administrator.
34. The EDRMS should support the ability to enter a short free-text description of each electronic folder as an element of folder metadata.
35. The EDRMS should support the creation of relational links (that is, 'see also' type links) between folders of related interest.
36. The EDRMS should be able to automatically close an electronic folder part on fulfilment of specified criteria to be defined at configuration, including at least:
 - parts delineated by an annual cut-off date; for example, the end of the calendar year, financial year or other defined annual cycle
 - the passage of time since a specified event; for example, the last addition of an electronic record to that part
 - the number of electronic records which a part contains
 - the physical size (in disk storage) of the electronic records contained in a part.
37. The EDRMS should support the ability to create multiple entries for electronic records in different electronic folders without physical duplication of the electronic record itself.
38. The EDRMS should support reporting tools for the provision of statistics to the records manager on aspects of activity within the electronic file plan, including:
 - the number of electronic folders created within a given period
 - the number of electronic parts opened and closed within a given period
 - the number of electronic records added to folders within a given period, stratified by user.



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CREATE

2.0. Capture

2.1. Requirement 1 : Capture processes

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
1	Enable integration with business applications so that transactional records created by those applications can be captured within the electronic records management system (including email).				
2	Indicate when an individual record is captured within the electronic records management system.				
3	Prevent the alteration of the content of any record by any user or administrator during the process of records capture. See also Requirements 88 and 89.				
4	Prevent the destruction or deletion of any record by any user, including an administrator, with the exceptions of: <ul style="list-style-type: none"> • destruction in accordance with a disposition authority; and • authorised deletion by an administrator 				
5	Support manual naming of electronic records and allow this name to be different from the existing file name (including email subject lines used to construct record titles). If the existing filename is taken by default, the electronic records management system must allow this name to be amended at the time of capture.				
6	Allow an administrator to alter the metadata of a record within the system if required, to allow finalisation/correction of the record profile. Any such action must be captured in a records management metadata.				
7	Any revision or alteration of the records management/capture metadata must be captured as additional records management metadata.				
8	Alert a user to any failure to successfully capture a record.				



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9	Be able, where possible and appropriate, to provide a warning if an attempt is made to capture a record that is incomplete or inconsistent in a way which will compromise its future apparent authenticity				
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2.2. Requirement 2 : Point of capture metadata

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
10	Support the use of persistent metadata for records.				
11	Acquire metadata elements for each record and persistently link them to the record over time.				
12	Ensure that the values for metadata elements conform to specified encoding schemes.				
13	Allow the administrator to pre-define (and re-define) the metadata elements associated with each record, including whether each element is mandatory or optional.				
14	Allow all metadata for every record to be viewed by users, subject to access rights for individuals or groups of users.				
15	Automatically capture the date and time of capture of each record as metadata elements linked to each record.				
16	Support automatic extraction or migration of metadata from: <ul style="list-style-type: none"> • the software application that created the record; • an operating system or line of business system; • an electronic records management system; and • the file header, including file format metadata, of each record and its constituent components captured into the system. 				
17	Prevent the alteration of metadata captured in Requirement 16, unless authorised by the system administrator.				



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18	Allow entry of additional metadata by users during record capture and/or a later stage of processing by the user.				
19	Ensure that only authorised users and administrators can change the content of records management metadata elements.				
20	Allocate an identifier, unique within the system, to each record at point of capture automatically.				

2.3. Requirement 3 : Aggregation of electronic records

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
21	Ensure that all records captured within the electronic records management system are associated with at least one aggregation.				
22	Manage the integrity of all markers or other reference tags to records (where used), ensuring that: <ul style="list-style-type: none"> following a marker, whichever aggregation that the marker record is located in, will always result in correct retrieval of the record; and any change in location of a record also redirects any marker that references that record. management system. However, the system may permit the administrator to set limitations on the quantity of items within an aggregation if required for business purposes. 				
23	Not impose any practical limit on the number of records that can be captured in an aggregation, or on the number of records that can be stored in the electronic records				
24	Allow users to choose at least one of the following where an electronic object has more than one manifestation: <ul style="list-style-type: none"> register all manifestations of the object as one record; register one manifestation of the object as a record; or register each manifestation of the object as a discrete record 				



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The electronic records management system **should**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
25	Support the ability to assign records to multiple aggregations without their duplication				

2.4. Requirement 4 : Bulk importing

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
26	Be able to capture in bulk records exported from other systems, including capture of: <ul style="list-style-type: none"> • electronic records in their existing format, without degradation of content or structure, retaining any contextual relationships between the components of any individual record; • electronic records and all associated records management metadata, retaining the correct contextual relationships between individual records and their metadata attributes; and • the structure of aggregations to which the records are assigned, and all associated records management metadata, retaining the correct relationship between records and aggregations. 				
27	Be able to import any directly associated event history metadata with the record and/or aggregation, retaining this securely within the imported structure.				

2.5. Requirement 5 : Electronic document formats

The electronic records management system **must**:



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#	REQUIREMENT	OOTB	CONF	CUST	3PA
28	Support the capture of records created in native file formats from commonly used software applications such as: (but not limited to) <ul style="list-style-type: none"> • standard office applications (word processing, spread-sheeting, presentation, simple databases); • email client applications; • imaging applications; • web authoring tools. and • technical documents such DWF, etc. 				
29	Be able to extend the range of file formats supported as new file formats are introduced for business purposes or for archival retention (for example, PDF/A).				

2.6. Requirement 6 : Compound records

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
30	Capture compound electronic records (records comprising more than one component) so that: <ul style="list-style-type: none"> • the relationship between the constituent components of each compound record is retained; • the structural integrity of each compound record is retained; and • each compound record is retrieved, displayed and managed as a single unit. 				
31	Be able to capture compound records easily, preferably with one action, for example, a single click.				



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2.7. Requirement 7 : E-Mail

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
32	Allow users to capture emails (text and attachments) as single records as well as individual records linked by metadata.				
33	Allow individual users to capture email messages (and attachments) from within their email application.				
34	Allow users to choose whether to capture emails with attachments as: <ul style="list-style-type: none"> • email text only; • email text with attachments; or • attachments only 				
35	Ensure the capture of email transmission data as metadata persistently linked to the email record.				
36	Ensure that the text of an email and its transmission details cannot be amended in any way once the email has been captured. Nor should the subject line of the email itself be changeable, although the title of the record may be edited for easier access through, for example, keywords or by file-naming conventions.				
37	Ensure that a human-readable version of an email message address is also captured, where one exists				

3.0. Identification

3.1. Requirement 8 : Identification

The electronic records management system **must**:



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#	REQUIREMENT	OOTB	CONF	CUST	3PA
38	Associate each of the following with a unique identifier: <ul style="list-style-type: none"> • record; • record extract; and • aggregation. 				
39	Require all identifiers to be unique and unduplicated within the entire electronic records management system.				
40	Be able to store the unique identifiers as metadata elements of the entities to which they refer.				
41	Either: Generate unique identifiers automatically, and prevent users from inputting the unique identifier manually and from subsequently modifying it (for example, a sequential number)				
42	Or: Allow users to input a unique identifier but validate that it is unique before it is accepted (for example, an account number).				
43	Allow the format of the unique identifier to be specified at configuration time.				

Where unique identifiers are automatically generated, the electronic records management system **should**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
44	Allow the administrator to specify at configuration time the starting number (for example, 1, 10, 100) and increment (for example, 1, 10) to be used in all cases.				

3.2. Classification

3.2.1 Requirement 9 : Establishing a classification scheme

The electronic records management system **must**:



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#	REQUIREMENT	OOTB	CONF	CUST	3PA
45	Support the use of persistent metadata for records.				
46	Be able to support a classification scheme that can represent aggregations (at the function, activity, transaction level) as being organised in a hierarchy with a minimum of three levels				
47	Allow the inheritance of values from a classification scheme.				
48	Allow naming conventions or thesauri to be defined at the time the electronic records management system is configured.				
49	Support the initial and ongoing construction of a classification scheme.				
50	Allow administrators to create new aggregations at any level within any existing aggregation.				
51	Not limit the number of levels in the classification scheme hierarchy unless set by an administrator.				
52	Support the definition of different record types that are associated with a specified set of metadata to be applied at capture.				
53	Support the allocation of unique identifiers to records within the classification structure				

Where the unique identifiers are based on sequential numbering, the electronic records management system **should**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
54	Have the capacity to automatically generate the next sequential number within the classification scheme for each new electronic aggregation				

The electronic records management system may:



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55	Support a distributed classification scheme that can be maintained across a network of electronic record repositories.
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Where the electronic records management system employs a graphical user interface, it **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
56	Support browsing and graphical navigation of the aggregations and classification scheme structure, and the selection, retrieval and display of electronic aggregations and their contents through this mechanism.				

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
57	Support the definition and simultaneous use of multiple classification schemes. This may be required, for example, following the merger of two organisations or migration of legacy systems. It is not intended for routine use.				

3.2.2. Requirement 10 : Classification levels

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
58	Support metadata for levels within the classification scheme.				
59	It must be possible to apply both identifiers separately and/or together.				
60	Allow only authorised users to create new classifications at the highest level in the classification scheme (for example, at the business function level).				
61	Record the date of opening of a new aggregation within its associated records management metadata.				



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62	Automatically include in the records management metadata of each new aggregation those attributes that derive from its position in the classification scheme (for example, name, classification code)				
63	Allow the automatic creation and maintenance of a list of classification levels.				

The electronic records management system **should**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
64	Support a naming mechanism that is based on controlled vocabulary terms and relationships drawn (where appropriate) from an ISO 2788-compliant or ISO 5964-compliant thesaurus and support the linking of the thesaurus to the classification scheme.				
65	Support an optional aggregation naming mechanism that includes names (for example, people’s names) and/or dates (for example, dates of birth) as file names, including validation of the names against a list.				
66	Support the allocation of controlled vocabulary terms compliant with ISO 2788 or ISO 5964 as records management metadata, in addition to the other requirements in this section.				

3.2.3. Requirement : 11 Classification processes

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
67	Allow an electronic aggregation (including volumes) to be relocated to a different position in the classification scheme and ensure that all electronic records already allocated remain allocated to the aggregations (including volumes) being relocated.				



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68	Allow an electronic record to be reclassified to a different volume of an electronic aggregation.				
69	Restrict to authorised users the ability to move aggregations (including volumes) and individual records.				
70	Keep a clear history of the location of reclassified aggregations (including volumes) prior to their reclassification, so that their entire history can be determined easily.				
71	Prevent the deletion of an electronic aggregation or any part of its contents at all times, with the exceptions of: <ul style="list-style-type: none"> • destruction in accordance with a disposal authority; and • deletion by an administrator as part of an audited procedure. 				
72	Allow an electronic aggregation to be closed by a specific administrator procedure and restrict this function to an administrator.				
73	Record the date of closing of a volume in the volume’s records management metadata.				
74	Maintain internal integrity (relational integrity or otherwise) at all times, regardless of: <ul style="list-style-type: none"> • maintenance activities; • other user actions; and • failure of system components 				
75	Not allow any volume that has been temporarily re-opened to remain open after the administrator who opened it has logged off.				
76	Allow users to create cross-references between related aggregations or between aggregations and individual records.				
77	Provide reporting tools for the provision of statistics to the administrator on aspects of activity using the classification scheme, including the numbers of electronic aggregations				



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	(including volumes) or records created, closed or deleted within a given period, by user group or functional role.				
78	Allow the authorised users to enter the reason for the reclassification of aggregations (including volumes) and individual records.				
79	Be able to close a volume of an electronic aggregation automatically on fulfilment of specified criteria to be defined at configuration, including at least: <ul style="list-style-type: none"> volumes delineated by an annual cut-off date (for example, end of the calendar year, financial year or other defined annual cycle); the passage of time since a specified event (for example, the most recent addition of an electronic record to that volume); and the number of electronic records within a volume. 				
80	Be able to open a new volume of an electronic aggregation automatically on fulfilment of specified criteria to be defined at configuration.				
81	Allow an administrator to lock or freeze aggregations to prevent relocation, deletion, closure or modification when circumstances require, for example, pending legal action				

3.2.4. Requirement 12 : Record volumes

Where the electronic records management system uses volumes, it **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
82	Allow administrators to add (open) electronic volumes to any electronic aggregation that is not closed.				
83	Record the date of opening of a new volume in the volume’s records management metadata.				



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84	Automatically include in the metadata of new volumes those attributes of its parent aggregation's records management metadata that assign context (for example, name, classification code).				
85	Support the concept of open and closed volumes for electronic aggregations, as follows: <ul style="list-style-type: none"> only the most recently created volume within an aggregation can be open; and all other volumes within that aggregation must be closed (subject to temporary exceptions) 				
86	Prevent the user from adding electronic records to a closed volume				
87	Allow an authorised user to add records to a closed file				

MAINTAIN

3.3 Managing authentic and reliable records

3.3.1 Requirement 13 : Access and security

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
88	Ensure that records are maintained complete and unaltered, except in circumstances such as court orders for amendments to record content and metadata, in which cases only system administrators may undertake such changes with appropriate authorisation.				
89	Document any exceptional changes to records as described in Requirement 88 in relevant metadata.				
90	Maintain the technical, structural and relational integrity of records and metadata in the system.				



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3.3.2 Requirement 14 : Access control

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
91	Restrict access to system functions according to a user's role and strict system administration controls.				

3.3.3 Requirement 15 : Establishing security control

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
92	Allow only administrators to set up user profiles and allocate users to groups.				
93	Allow the administrator to limit access to records, aggregations and records management metadata to specified users or user groups.				
94	Allow the administrator to alter the security category of individual records.				
95	Allow changes to security attributes for groups or users (such as access rights, security level, privileges,				

3.3.4 Requirement 16 : Assigning security levels

The electronic records management system **must**:



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#	REQUIREMENT	OOTB	CONF	CUST	3PA
96	<p>Allow only the administrator to attach to the user profile attributes that determine the features, records management metadata fields, records or aggregations to which the user has access. The attributes of the profile will:</p> <ul style="list-style-type: none"> prohibit access to the electronic records management system without an accepted authentication mechanism attributed to the user profile; restrict user access to specific records or aggregations; restrict user access according to the user's security clearance; restrict user access to particular features (for example, read, update and/or delete specific records management metadata fields); deny access after a specified date; and allocate the user to a group or groups. 				
97	Be able to provide the same control functions for roles, as for users.				
98	Be able to set up groups of users that are associated with an aggregation.				
99	Allow a user to be a member of more than one group				

If the electronic records management system maintains a list of aggregations, it **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
100	Be able to limit users' access to parts of the list (to be specified at the time of configuration).				
101	Allow a user to stipulate which other users or groups can access records that the user is responsible for.				

3.3.5 Requirement 17 : Executing security controls

The electronic records management system **must**:



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#	REQUIREMENT	OOTB	CONF	CUST	3PA
102	Allow the administrator, subject to Section 3.3.6: Security categories, to alter the security category of all records within an aggregation in one operation. The electronic records management system must provide a warning if the security classifications of any records are lowered and await confirmation before completing the operation.				
103	Allow the administrator to change the security category of aggregations, subject to the requirements of Section 3.3.6: Security categories.				
104	Record full details of any change to security category in the records management metadata of the record, volume or aggregation affected.				
105	Provide one of the following responses (selectable at configuration time) whenever a user requests access to, or searches for, a record, volume or aggregation that they do not have the right to access: <ul style="list-style-type: none"> • display title and records management metadata; • display the existence of an aggregation or record (that is, display its file or record number) but not its title or other records management metadata; or • not display any record information or indicate its existence in any way. 				
106	Never include, in a list of full text or other search results, any record that the user does not have the right to access.				

If the electronic records management system allows users to make unauthorised attempts to access aggregations (and their volumes) or records, it **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
107	Log all unauthorised attempts to access aggregations (and their volumes) or records in their respective unique metadata				

3.3.6 Requirement 18 : Security categories

The electronic records management system **must**:



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#	REQUIREMENT	OOTB	CONF	CUST	3PA
108	Allow security classifications to be assigned to records.				
109	Allow security classifications to be selected and assigned at system level for: <ul style="list-style-type: none"> all levels of records aggregations (including volumes); and individual records or record objects. 				
110	Allow access-permission security categorisation to be assigned: <ul style="list-style-type: none"> at group level (be able to set up group access to specific aggregations, record classes security or clearance levels); by organisational role; at user level; and in combination(s) of the above. 				
111	Allow the assignment of a security category: <ul style="list-style-type: none"> at any level of records aggregation; after a specified time or event; and to a record type. 				
112	Support the automated application of a default value of 'Unclassified' to an aggregation or record not allocated any other security category.				
113	Enable its security subsystem to work effectively together with general security products.				
114	Be able to determine the highest security category of any record in any aggregation by means of one simple enquiry.				
115	Support routine, scheduled reviews of security classifications.				
116	Restrict access to electronic aggregations/records that have a security classification higher than a user's security clearance.				

Security classification will be jurisdictionally or organisationally assigned but will be categorised with the following levels:



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- *Restricted*
- *Confidential*
- *Secret*
- *Top Secret.*

If security classifications are assigned to aggregations as well as individual records, then the electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
117	Be capable of preventing an electronic aggregation from having a lower security classification than any electronic record within that aggregation.				

3.3.7 Requirement 19 : Records management process metadata

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
118	Be capable of creating unalterable metadata of records management actions (actions to be specified by each agency) that are taken on records, aggregations or the classification scheme. The metadata should include the following records management metadata elements: <ul style="list-style-type: none"> • type of records management action; • user initiating and/or carrying out the action; and • date and time of the action. 				
119	Track events, once the metadata functionality has been activated, without manual intervention, and store in the metadata information.				
120	Maintain the metadata for as long as required.				
121	Provide metadata of all changes made to:				



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	<ul style="list-style-type: none"> • electronic aggregations (including volumes); • individual electronic records; and • records management metadata associated with any of the above. 				
122	Document all changes made to administrative parameters (for example, changes made by the administrator to a user's access rights).				
123	<p>Be capable of capturing and storing in the metadata information about the following actions:</p> <ul style="list-style-type: none"> • date and time of capture of all electronic records; • reclassification of an electronic record in another electronic volume; • reclassification of an electronic aggregation in the classification scheme; • any change to the disposal authority of an electronic aggregation; • any change made to any records management metadata associated with aggregations or electronic records; • date and time of creation, amendment and deletion of records management metadata; • changes made to the access privileges affecting an electronic aggregation, electronic record or user; • export or transfer actions carried out on an electronic aggregation; • date and time at which a record is rendered; and • disposal actions on an electronic aggregation or record. 				
124	Ensure that metadata is available for inspection on request, so that a specific event can be identified, and all related data made accessible, and that this can be achieved by authorised external personnel who have little or no familiarity with the system.				
125	Be able to export metadata for specified records and selected groups of records without affecting the metadata stored by the electronic records management system.				
126	Be able to capture and store violations (that is, a user's attempts to access a record or aggregation, including volumes, to which they are denied access), and (where violations can validly be attempted) attempted violations of access control mechanisms..				
127	<p>Be able, at a minimum, to provide reports for actions on records and aggregations organised:</p> <ul style="list-style-type: none"> • by record or aggregation; • by user; and 				



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	<ul style="list-style-type: none"> in chronological sequence. 				
128	Allow the metadata facility to be configurable by the administrator so that the functions for which information is automatically stored can be selected. The electronic records management system must ensure that this selection and all changes to it are stored in the metadata.				
129	Be able to provide reports for actions on aggregations and records organised by workstation and (where technically appropriate) by network address.				
130	Allow the administrator to change any user-entered records management metadata element. Information about any such change must be stored in the metadata.				

3.3.8 Requirement 20 : Tracking record movement

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
131	Provide a tracking feature to monitor and record information about the location and movement of both electronic and non-electronic aggregations.				
132	Record information about movements including: <ul style="list-style-type: none"> unique identifier of the aggregation or record; current location as well as a user-defined number of previous locations (locations should be user-defined); date item sent/moved from location; date item received at location (for transfers); and user responsible for the move (where appropriate). 				
133	Maintain access to the electronic record content, including the ability to render it, and maintenance of its structure and formatting over time and through generations of office application software.				



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3.4 Requirement 21 : Hybrid records management

3.4.1 Management of electronic and non-electronic records

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
134	Be able to define in the classification scheme non-electronic aggregations and volumes and must allow the presence of non-electronic records in these volumes to be reflected and managed in the same way as electronic records.				
135	Allow both kinds of record to be managed in an integrated manner.				
136	Allow a non-electronic aggregation that is associated as a hybrid with an electronic aggregation to use the same title and numerical reference code, but with an added indication that it is a hybrid non-electronic aggregation.				
137	Allow a different records management metadata element set to be configured for non-electronic and electronic aggregations; non-electronic aggregation records management metadata must include information on the physical location of the non-electronic aggregation.				
138	Ensure that retrieval of non-electronic aggregations displays the records management metadata for both electronic and non-electronic records associated with it.				
139	Include features to control and record access to non-electronic aggregations, including controls based on security category, which are comparable with the features for electronic aggregations.				
140	Support tracking of non-electronic aggregations by the provision of request, check-out and check-in facilities that reflect the current location of the item concerned				

The electronic records management system **should**:



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#	REQUIREMENT	OOTB	CONF	CUST	3PA
141	Support the printing and recognition of bar codes for non-electronic objects (for example, documents, files and other containers), or should support other tracking systems to automate the data entry for tracking the movement of such non-electronic records.				
142	Support the retention and disposal protocols and routinely apply to both electronic and non-electronic elements within hybrid aggregations				

Where aggregations have security categories, the electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
143	Ensure that a non-electronic record is allocated the same security category as an associated electronic record within a hybrid records aggregation.				

3.5 Requirement 22 : Retention and disposal

3.5.1 Disposition authorities

Establishing disposition authorities

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
144	Provide a function that: <ul style="list-style-type: none"> • specifies disposal authorities; • automates reporting and destruction actions; • disposes of compound records as a single action; and • provides integrated facilities for exporting records and records management metadata. 				



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145	Be able to restrict the setting up and changing of disposal authorities to the administrator only.				
146	Allow the administrator to define and store a set of customised standard disposal authorities.				
147	Support retention periods from a minimum of one month to an indefinite period				

Applying disposition authorities

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
148	Be capable of assigning a disposal authority to any aggregation or record type.				
149	By default, ensure that every record in an aggregation is governed by the disposal authority(s) associated with that aggregation.				
150	Include a disposition action, agency retention period and trigger in the (metadata) record for the decision for each disposal authority.				
151	For each aggregation: <ul style="list-style-type: none"> • automatically track retention periods that have been allocated to the aggregation; and • initiate the disposition process by prompting the administrator to consider and, where appropriate approve and execute, disposal action when disposition is due. 				
152	Allow at least the following decisions for each disposal authority: <ul style="list-style-type: none"> • retain indefinitely; • present for review at a future date; • destroy at a future date; and • transfer at a future date. 				
153	Allow retention periods for each disposal authority to be specified at a future date, with the date able to be set in at least the following ways: <ul style="list-style-type: none"> • passage of a given period of time after the aggregation is opened; 				



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	<ul style="list-style-type: none"> • passage of a given period of time after the aggregation is closed; • passage of a given period of time since the most recent record has been assigned to the aggregation; • passage of a given period of time after a specific event (event to be identified in the schedule, and will be notified to the electronic records management system by the administrator, rather than being detected automatically by the electronic records management system); and • specified as 'indefinite' to indicate long-term preservation of the records 				
154	Enable a disposal authority to be assigned to an aggregation that over-rides the disposal authority assigned to its 'parent' aggregation.				
155	Allow the administrator to amend any disposal authority allocated to any aggregation at any point in the life of that aggregation.				
156	Allow the administrator to change the authority(s) associated with an aggregation at any time.				
157	Allow the definition of sets of processing rules that can be applied as an alerting facility to specified aggregations prior to initiation of a disposal process.				
158	Provide the option of allowing electronic records or aggregations that are being moved between aggregations by the administrator to have the disposal authority of the new aggregation, replacing the existing disposal authority(s) applying to these records				

Executing disposition authorities

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
159	Allow the administrator to delete aggregations, volumes and records (subject to Security categories).				
160	When executing disposition authorities, the electronic records management system must be able to: <ul style="list-style-type: none"> • produce an exception report for the administrator; 				



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	<ul style="list-style-type: none"> • delete the entire contents of an aggregation or volume when it is deleted; • prompt the administrator to enter a reason for the action; • ensure that no items are deleted if their deletion would result in a change to another record (for example, if a document forms a part of two records – see Aggregation of electronic records – one of which is being deleted); • inform the administrator of any links from another aggregation or record to an aggregation or volume, that is about to be deleted, and request confirmation before completing the deletion; • alert the administrators to any conflicts, for example, items that are linked to more than one disposition action involving pointers; and • maintain complete integrity of the records management metadata at all times 				
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If more than one disposal authority is associated with an aggregation, the electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
161	Automatically track all retention periods specified in these disposal authorities and initiate the disposal process once the last of all these retention dates is reached.				
162	Allow the administrator to manually or automatically lock or freeze records disposition processes (holds for litigation or legal discovery purposes, etc.).				

Documenting disposition actions

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
163	Record any deletion or disposal action comprehensively in the process metadata.				
164	Automatically record and report all disposal actions to the administrator.				



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Reviewing disposition

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
165	Support the review process by presenting electronic aggregations to be reviewed, with their records management metadata and disposal authority information, in a manner that allows the reviewer to browse the contents of the aggregation and/or records management metadata efficiently.				
166	Allow the reviewer to take at least any one of the following actions for each aggregation during review: <ul style="list-style-type: none"> mark the aggregation for destruction; mark the aggregation for transfer; mark the aggregation for indefinite hold, for example, pending litigation; and change the disposal authority (or assign a different schedule) so that the aggregation is retained and re-reviewed at a later date, as defined in this section. 				
167	Allow the reviewer to enter comments into the aggregation's records management metadata to record the reasons for the review decisions.				
168	Alert the administrator to aggregations due for disposal before implementing disposal actions, and on confirmation from the administrator must be capable of initiating the disposal actions specified in this section.				
169	Store in the metadata all decisions taken by the reviewer during reviews.				
170	Produce a disposal authority report for the administrator that identifies all disposal authorities that are due to be applied in a specified time period and provide quantitative reports on the quantity and types of records covered.				
171	Be able to specify the frequency of a disposal authority report, the information reported and highlight exceptions such as overdue disposal.				



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172	<p>Alert the administrator if an electronic aggregation that is due for destruction is referred to in a link from another aggregation and pause the destruction process to allow the following remedial action to be taken:</p> <ul style="list-style-type: none"> • confirmation by the administrator to proceed with or cancel the process; and • generation of a report detailing the aggregation or record(s) concerned and all references or links for which it is a destination. 				
173	<p>Support reporting and analysis tools for the management of retention and disposal authorities by the administrator, including the ability to:</p> <ul style="list-style-type: none"> • list all disposal authorities; • list all electronic aggregations to which a specified disposal authority is assigned; • list the disposal authority(s) applied to all aggregations below a specified point in the hierarchy of the classification scheme; • identify, compare and review disposal authorities (including their contents) across the classification scheme; and • identify formal contradictions in disposal authorities across the classification scheme 				
174	<p>Provide, or support the ability to interface with, a workflow facility to support the scheduling, review and export/transfer process by tracking:</p> <ul style="list-style-type: none"> • progress/status of the review, such as awaiting or in-progress, details of reviewer and date; • records awaiting disposal as a result of a review decision; and • progress of the transfer process. 				

The electronic records management system **should**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
175	Be able to accumulate statistics of review decisions in a given period and provide tabular and graphic reports on the activity.				



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3.5.2 Requirement 23 :Migration, export and destruction

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
176	Provide a well-managed process to transfer records to another system or to a third-party organisation and support migration processes.				
177	Include all aggregations, volumes, records and associated metadata within aggregations whenever an electronic records management system transfers any aggregation or volume.				
178	Be able to transfer or export an aggregation (at any level) in one sequence of operations so that: <ul style="list-style-type: none"> the content and structure of its electronic records are not degraded; all components of an electronic record (when the record consists of more than one component) are exported as an integral unit including any technical protection measures; all links between the record and its records management metadata are retained; and all links between electronic records, volumes and aggregations are retained. 				
179	Be able to include a copy of the entire metadata set associated with the records and aggregations that are transferred or exported from an electronic records management system.				
180	Produce a report detailing any failure during a transfer, export or destruction. The report must identify any records destined for transfer that have generated processing errors, and any aggregations or records that are not successfully transferred, exported or destroyed.				
181	Retain copies of all electronic aggregations and their records that have been transferred, at least until such time as a successful transfer is confirmed.				
182	Be able to continue to manage records and aggregations that have been exported from the electronic records management system to other forms of storage media.				
183	Have the ability to retain records management metadata for records and aggregations that have been destroyed or transferred.				



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184	Allow the administrator to specify a subset of aggregation records management metadata that will be retained for aggregations which are destroyed, transferred out or moved offline.				
185	Enable the total destruction of records (whether identified by class or individually) stored on re-writable media by completely obliterating them so that they cannot be restored through specialist data recovery facilities				

The electronic records management system **should**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
186	Provide a utility or conversion tool to support the conversion of records marked for transfer or export into a specified file transfer or export format.				
187	Provide the ability to add user-defined records management metadata elements required for archival management purposes to electronic aggregations selected for transfer.				
188	Provide the ability to sort electronic aggregations selected for transfer into ordered lists according to user-selected records management metadata elements.				

Where hybrid aggregations are to be transferred, exported or destroyed, the electronic records management system **should**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
189	Require the administrator to confirm that the non-electronic part of the same aggregations has been transferred, exported or destroyed before transferring, exporting or destroying the electronic part.				

3.5.3 Requirement 24 : Retention and disposal of electronic and non-electronic records

The electronic records management system **must**:



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#	REQUIREMENT	OOTB	CONF	CUST	3PA
190	Support the allocation of disposal authorities to every non-electronic aggregation in the classification scheme. The authorities must function consistently for electronic and non-electronic aggregations, notifying the administrator when the disposal date is reached, but taking account of the different processes for disposing of electronic and non-electronic records.				
191	Support the application of the same disposal authority to both the electronic and non-electronic aggregations that make up a hybrid aggregation.				
192	Be able to apply any review decision made on a hybrid electronic aggregation to a non-electronic aggregation with which it is associated.				
193	Alert the administrator to the existence and location of any hybrid non-electronic aggregation associated with a hybrid electronic aggregation that is to be exported or transferred.				
194	Be able to record in the metadata all changes made to records management metadata references to non-electronic or hybrid aggregations and records.				
195	Be capable of offering check-out and check-in facilities for non-electronic aggregations profiled in the system, in particular enabling the ability to record a specific user or location to which a non-electronic aggregation is checked out, and to display this information if the non-electronic aggregation is requested by another user.				
196	Be capable of offering a request facility for non-electronic records profiled in the hybrid aggregation system, enabling a user to enter a date that the non-electronic element is required and generating a consequent message for transmission to the current holder of that non-electronic aggregation or the administrator, according to configuration.				
197	Be able to export and transfer records management metadata of non-electronic records and aggregations				

The electronic records management system **should**:



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#	REQUIREMENT	OOTB	CONF	CUST	3PA
198	Support the application of a review decision taken on a group of aggregations to any non-electronic aggregations within that group, by notifying the administrator of necessary actions to be taken on the non-electronic aggregations.				

DISSEMINATE

3.6 Requirement 25 : Search, retrieve and render

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
199	Provide a flexible range of functions that operate on the metadata related to every level of aggregation and on the contents of the records through user-defined parameters for the purpose of locating, accessing and retrieving individual records or groups of records and/or metadata.				
200	Allow all record, volume and aggregation records management metadata to be searchable.				
201	Allow the text contents of records (where they exist) to be searchable.				
202	Allow the user to set up a single search request with combinations of records management metadata and/or record content.				
203	Allow administrators to configure and change the search fields to: <ul style="list-style-type: none"> specify any element of record, volume and aggregation records management metadata, and optionally full record content, as search fields; and change the search field configuration. 				
204	Provide searching tools for: <ul style="list-style-type: none"> free text searching of combinations of record and aggregation records management metadata elements and record content; and 				



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	<ul style="list-style-type: none"> Boolean searching of records management metadata elements (see also Requirement 219). 				
205	Provide for 'wild card' searching of records management metadata that allows for forward, backward and embedded expansion.				
206	Allow searching within a single aggregation or across more than one aggregation.				
207	Be able to search for, retrieve and display all the records and records management metadata relating to an electronic aggregation, or volume, as a single unit.				
208	<p>Be able to search for, retrieve and render an electronic aggregation by all implemented naming principles, including:</p> <ul style="list-style-type: none"> name; and identifier (classification code). 				
209	Display the total number of search results on a user's screen and must allow the user to then display the results list or refine the search criteria and issue another request.				
210	Allow records and aggregations featured in the search results list to be selected, then opened (subject to access controls) by a single click or keystroke.				
211	Allow users to retrieve aggregations and records directly through the use of a unique identifier.				
212	Never allow a search or retrieval function to reveal to a user any information (records management metadata or record content) that the access and security settings are intended to hide from that user.				
213	Have integrated search facilities for all levels of the classification scheme.				
214	Provide free-text and records management metadata searches in an integrated and consistent manner.				
215	Present seamless functionality when searching across electronic, non-electronic and hybrid aggregations.				
216	Allow users to save and re-use queries.				



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217	Allow users who are viewing or working with a record or aggregation, whether as the result of a search or otherwise, to see the record within the classification or aggregation hierarchy easily and without leaving or closing the record.				
218	Allow users to refine (that is, narrow) searches				

The electronic records management system **should**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
219	Provide word proximity searching that can specify that a word has to appear within a given distance of another word in the record to qualify as a search result (see also Requirements 202, 203 and 204).				
220	Allow the records management metadata of any object (such as record, volume or aggregation) to be searched, whether the object itself is in electronic form or not, and regardless of whether the object is stored online, near-line or offline.				
221	Provide display formats configurable by users or administrators for search results, including such features and functions as: <ul style="list-style-type: none"> • select the order in which the search results are presented; • specify the number of search results displayed on the screen; • set the maximum number of search results; • save the search results; and • choose which records management metadata fields are displayed in search result lists. 				
222	Provide relevance ranking of the search results.				
223	Be able to relate an 'extract' of an electronic record to the original record, so that retrieval of one allows retrieval of the other, while retaining separate records management metadata and access controls over the two items.				
224	Provide concept searches through the use of a thesaurus incorporated as an online index				

Where a graphical user interface is employed, the electronic records management system **must**:



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#	REQUIREMENT	OOTB	CONF	CUST	3PA
225	Provide a browsing mechanism that enables graphical or other display browsing techniques at any level of aggregation				

3.6.1 Requirement 26 : Rendering: displaying records

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
226	Render or download records that the search request has retrieved				

The electronic records management system **should**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
227	Render records that the search request has retrieved without loading the associated application software.				
228	Be able to render all the types of electronic records specified by the organisation in a manner that preserves the information in the records (for example, all the features of visual presentation and layout produced by the generating application package), and which renders all components of an electronic record in their original relationship				

3.6.2 Requirement 27 : Rendering: printing

The electronic records management system **must**:



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#	REQUIREMENT	OOTB	CONF	CUST	3PA
229	Provide the user with flexible options for printing records and their relevant records management metadata, including the ability to print a record(s) with records management metadata specified by the user.				
230	Allow the printing of records management metadata for an aggregation.				
231	Allow the user to be able to print out a summary list of selected records (for example, the contents of an aggregation), consisting of a user-specified subset of records management metadata elements (for example, Title, Author, Creation date) for each record.				
232	Allow the user to print the results list from all searches.				
233	Be able to print all the types of electronic records specified by the organisation. Printing must preserve the layout produced by the generating application package(s) and include all (printable) components of the electronic record.				
234	Allow the administrator to specify that all printouts of records have selected records management metadata elements appended to them, for example, title, registration number, date and security category.				
235	Allow the administrator to print the thesaurus, where a thesaurus exists within the system.				
236	Allow the administrator to print any and all administrative parameters.				
237	Allow the administrator to print disposal authorities.				
238	Allow the administrator to print the classification scheme.				
239	Allow the administrator to print metadata schema or element sets				

The electronic records management system **should**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
240	Allow all records in an aggregation to be printed, in the sequence specified by the user, in one operation.				



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If the electronic records management system uses classification schemes and thesauri, **it must:**

#	REQUIREMENT	OOTB	CONF	CUST	3PA
241	Allow the administrator to print the file list.				

3.6.3 Requirement 28 : Rendering: redacting records

The electronic records management system **must:**

#	REQUIREMENT	OOTB	CONF	CUST	3PA
242	Allow the administrator to take a copy of a record for the purposes of redaction.				
243	Record the creation of extracts in the records management metadata, including at least date, time, reason for creation and creator.				
244	Store in the metadata any change made in response to the requirements in this section.				

The electronic records management system **should:**

#	REQUIREMENT	OOTB	CONF	CUST	3PA
245	Provide functionality for redacting sensitive information from the extract. If the electronic records management system does not directly provide these facilities, it must allow for other software packages to do so.				
246	Prompt the creator of an extract to assign it to an aggregation.				
247	Store a cross-reference to an extract in the same aggregation and volume as the original record, even if that volume is closed				



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3.6.4 Requirement 29 : Rendering: other

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
248	Include features for rendering those records that cannot be meaningfully printed to an appropriate output device.				

3.6.5 Requirement 30 : Rendering: re-purposing content

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
249	Allow the re-use or re-purposing of content				

ADMINISTER

3.7 Administration

3.7.1 Requirement 31 : Administrator functions

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
250	Allow the administrator to retrieve, display and re-configure system parameters and to re-allocate users and functions between user roles.				
251	Provide back-up facilities so that records and their records management metadata can be recreated using a combination of restored back-ups and metadata.				
251	Provide recovery and rollback facilities in the case of system failure or update error and must notify the administrator of the results.				



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253	Monitor available storage space and notify the administrator when action is needed because available space is at a low level or because it needs other administrative attention.				
254	<p>Allow the administrator to make bulk changes to the classification scheme, ensuring all records management metadata and metadata data are handled correctly and completely at all times, in order to make the following kinds of organisational change:</p> <ul style="list-style-type: none"> • division of an organisational unit into two; • combination of two organisational units into one; • movement or re-naming of an organisational unit; and • division of a whole organisation into two organisations. 				
255	Support the movement of users between organisational units.				
256	Allow the definition of user roles and must allow several users to be associated with each role.				
257	Communicate any errors encountered in saving data to storage media				

3.7.2 Requirement 32 : Metadata administration

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
258	Allow the administrator to create, define and delete metadata elements, including custom fields.				
259	Allow the administrator to apply and modify metadata schema rules, including semantic and syntactical rules, encoding schemes and obligation status.				
260	Allow the administrator to configure the system to restrict the viewing or modifying of metadata elements by group, functional role or user.				
261	Document all metadata administration activities				



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3.7.3 Requirement 33 : Reporting

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
262	<p>Provide flexible reporting facilities for the administrator. They must include, at a minimum, the ability to report the following:</p> <ul style="list-style-type: none"> • numbers of aggregations, volumes and records; • transaction statistics for aggregations, volumes and records; and • activity reports for individual users. 				
263	<p>Allow the administrator to report on metadata based on selected:</p> <ul style="list-style-type: none"> • aggregations; • volumes; • record objects; • users; • time periods; and • file formats and instances of each format. 				
264	<p>Be able to produce a report listing aggregations, structured to reflect the classification scheme, for all or part of the classification scheme.</p>				
265	<p>Allow the administrator to request regular periodic reports and one-off reports.</p>				
266	<p>Allow the administrator to report on metadata based on selected:</p> <ul style="list-style-type: none"> • security categories; • user groups; and • other records management metadata. 				
267	<p>Include features for sorting and selecting report information.</p>				
268	<p>Include features for totalling and summarising report information.</p>				
269	<p>Allow the administrator to restrict users' access to selected reports</p>				



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3.7.4 Requirement 34 : Back-up and recovery

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
270	Provide automated back-up and recovery procedures.				
271	Allow the administrator to schedule back-up routines by: <ul style="list-style-type: none"> specifying the frequency of back-up; and allocating storage media, system or location for the back-up (for example, offline storage, separate system, remote site). 				
272	Allow only the administrator to restore from electronic records management system back-ups. Full integrity of the data must be maintained after restoration.				
273	Allow only the administrator to roll-forward the electronic records management system from a back-up to a more recent state, maintaining full integrity of the data.				
274	Allow users to indicate that selected records are considered to be 'vital records'.				
275	Be able to notify users whose updates may have been incompletely recovered				

3.8 Requirement 35 : Workflow & Notifications

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
276	The system must have the ability to define and utilise custom workflows				
278	The system must allow for workflows to be defined: <ul style="list-style-type: none"> globally to be utilised by all users, 				



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	<ul style="list-style-type: none"> based on a classification in order to comply with specific legislative requirements of how to manage a particular record, and based on business unit requirements 				
279	<p>The system should be able to send notification(s) to;</p> <ul style="list-style-type: none"> users when a new record has been captured and the users have been granted permission to access the record the record owner when the record is due for destruction the record owner when a new version has been captured a new version of the record has been captured 				
280	The RMS must allow the user, to disable or manage the frequency of notifications				
281	The system must allow for users who have received a notification that requires any action, to perform the required action on that notification				
282	<p>Provide or support the ability to interface with, a workflow facility to support the scheduling, review, and export/transfer process by tracking:</p> <ul style="list-style-type: none"> progress/status of the review, such as awaiting or in-progress, details of reviewer and date; records awaiting disposal as a result of a review decision; and the progress of the transfer process 				

3.9. Requirement 36 : Privacy & security

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
283	The EDRMS must incorporate elements that enforce privacy and adherence to legislation				
284	The transmission of records must comply with the ECT Act				



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285	The EDRMS must be designed and implemented to meet various well-known security standards and penetration tests				
286	The EDRMS must have security measures that prevent unauthorised access, prevent it from being exploited by viruses, and other malicious code.				

3.10. Requirement 37 : Auditing

The electronic records management system **must**:

#	REQUIREMENT	OOTB	CONF	CUST	3PA
287	<p>The EDRMS must keep an audit trail of all activities performed by the users of the system, amongst others but not limited to;</p> <ul style="list-style-type: none"> • date and time of capture of all electronic records, • reclassification of an electronic record in another electronic volume, • reclassification of an electronic aggregation in the classification scheme, • any change to the disposal authority of an electronic aggregation, • any change made to any records management metadata associated with aggregations or electronic records, • date and time of creation, amendment, and deletion of records management metadata, • changes made to the access privileges affecting an electronic aggregation, electronic record, or user, • export or transfer actions carried out on an electronic aggregation, • date and time at which a record is rendered, and • disposal actions on an electronic aggregation or record. 				
288	The RMS must ensure that the audit trail cannot be modified in any way, or any part of the data deleted or destroyed by any user, including the administrator				



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4.0. EXTERNAL INTERFACE REQUIREMENTS

This section provides a list of detailed functional requirements which do not form part of the desired system. This section defines important functional requirement that are performed by other related systems that the desired system must permit the user to indirectly perform.

4.1. Scanning

#	REQUIREMENT	OOTB	CONF	CUST	3PA
S289	<p>The EDRMS must allow for the transformation of documents and records from physical to electronic format.</p> <p>Allow for different labelling of the physical record, for example:</p> <ol style="list-style-type: none"> 1. Reference Number 2. Record Name 3. Records Type 4. Access Classification 				
S290	The EDRMS must allow for interfacing with a mass scanning facility or MFP's, such as to be able to capture a record onto the system.				
S291	<p>The scanning facility should have the ability to Optical Character Recognise OCR scanned records and allow for editing of the documents once scanned.</p> <p>All OCR records must be fully searchable within the database.</p>				
S292	The scan facility should allow for scanning of records to the records management system or file plan directory.				
S293	The scan facility should be able to recognise and load metadata from barcodes				

4.2. Digital signing and encryption



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#	REQUIREMENT	OOTB	CONF	CUST	3PA
D294	The RMS must manage the digital signing of records				
D295	The EDRMS should manage the encryption of records and their related passwords				

5.0. NON-FUNCTIONAL REQUIREMENTS

Classification	REQUIREMENT	OOTB	CONF	CUST	3PA
Usability	The look and feel of the EDRMS must conform to the HDA Corporate Identity guidelines				
Legislation/Policy	The EDRMS must comply with; <ul style="list-style-type: none"> • related legislation that may affect the solution. i.e. POPIA • Policies • Business rules around 3rd party systems 				
Access Management	The EDRMS must support access control mechanisms that identify, defined groups and roles of users. The EDRMS should enable the configuration of an access mechanism that supports integrated sign-on.				
Response and Turnaround Times	The EDRMS must provide adequate response times for commonly performed functions under standard conditions, for example: <ul style="list-style-type: none"> • 80% of the total anticipated user population logged on and active • 100% of the anticipated total volume of documents managed by the system • users performing a mix of transaction types at various rates • One second page load time The system must have 99% availability, 24 hours a day, 7 days a week. Downtime due to hardware/software maintenance should be reported to users well in advance				



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Scalability	<p>The RMS must be able to support an exponential data growth of;</p> <ul style="list-style-type: none"> • 50% in year 1 • 60% in year 2 • 75% in year 3 				
Reliability and Availability	<p>The system must be available 99.95% during normal working hours (7h00 – 6h00) and 7.00am to 1.00pm on weekends and holidays.</p> <p>The Mean Time Between Failures (MTBF) is 90 days.</p> <p>Mean Time To Repair (MTTR) is expected to be a maximum of 2 hours.</p> <p>Maximum bugs or defect rate is expected to be in line with minimum standards</p>				
Disaster Recovery	<p>Provide back-up facilities so that documents and records and their metadata can be recreated using a combination of restored back-ups and metadata.</p> <p>Provide recovery and rollback facilities in the case of system failure or update error and must notify the Record Manager of the results.</p> <p>System must be able to retain data permanently, as per legislative requirements.</p>				

An indication is required if the activity to function is **OOTB** (Out-Of-The-Box); **CONF** (Configurable); **CUST** (Customisation); **3PA** (Third-Party Application) and for any other functionality listed in this document.