

MANAGING ELECTRONIC RECORDS IN GOVERNMENTAL BODIES: METADATA REQUIREMENTS

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PREFACE

The increasing use of electronic systems by governmental bodies to conduct their business has significantly changed the way that records are created and kept. Electronic recordkeeping poses particular challenges to governmental bodies and to the National Archives and Records Service, both of which need to ensure that reliable records are maintained over time as evidence of official business for the purposes of accountability, operational continuity, disaster recovery and institutional and social memory. With paper-based records, provided a well-structured file plan is maintained and the records are physically protected, the evidence they contain remains accessible and readable over time. However, in the rapidly-changing technological environment, the same cannot be said of electronic records.

It is essential for governmental bodies to give specific consideration to the preservation of electronic records as part of a formal policy of managing records. To promote strategies for the appropriate management of electronic records of government, the National Archives and Records Service of South Africa Act (No 43 of 1996, as amended) contains two provisions specifically regarding electronic records systems: that the National Archivist shall determine the conditions subject to which electronic records systems shall be managed, and also the conditions subject to which public records may be electronically reproduced (section 13(2)(b)(ii) and (iii)). As with other public records, the legislation provides that electronic records may not be disposed of without the written authorisation of the National Archivist (section 13(2)(a)). The legislative provisions regarding archival custody take the special needs of electronic records into account, in that while public records that have been appraised as having archival value are to be transferred to archival custody after 20 years, the National Archivist may in consultation with the head of a governmental body identify records which should remain in its custody or should be transferred to archival custody at an earlier time (section 11(2)(b)).

The purpose of this document is to provide guidance to governmental bodies to assist them to design a metadata capturing and management strategy as part of their strategic records management policy. Capturing and managing reliable and trustworthy metadata is as important as capturing appropriate content. Without metadata to provide context to individual documents, governmental bodies will not be creating legally admissible records with evidential weight.

This document should be read in conjunction with *Managing electronic records in governmental bodies: Policy, principles and requirements* which contains the broad policies, principles and requirements in terms of the National Archives and Records Service Act, 1996, as amended.

Dr Graham Dominy NATIONAL ARCHIVIST APRIL 2006

1. INTRODUCTION

1.1 General

Records are the output of the business and administrative processes of a governmental body. In other words, records are the final proof that a business or administrative process was transacted. As essential proof of the business that was conducted, records should remain unaltered over time for as long as they are needed.

Since one of the National Archives and Records Service's responsibilities is to preserve public records with enduring value for use by the public and the state, the National Archives and Records Service is not only concerned with the management and accessibility of records over a short period of time. Records created in electronic and paper-based record keeping systems contain the memory of the decision-making of government and its impact. The National Archives and Records Service has a responsibility to ensure that this memory is maintained and protected for centuries to come. To facilitate this the National Archives and Records Service's role in terms of the National Archives and Records Service of South Africa Act, 1996, as amended, is to promote efficient administration by regulating the records management practices of governmental bodies to ensure the sound management of the records of government.

The National Archives and Records Service needs to ensure that governmental bodies capture appropriate metadata to facilitate the long-term accessibility of records in the context of their creation. Metadata ensures the authenticity, reliability, trustworthiness, usability and integrity of records over time for as long as the records are needed. Metadata enables the management and understanding of records. Metadata itself also needs to be managed, to ensure that it is unalterable and thus trustworthy and reliable.

1.2 Benchmark

This document should be read in conjunction with the National Archives and Records Service's publication Managing electronic records in governmental bodies: Policy, principles and requirements. The strategies described in this document are based on the fundamental principle that the management of electronic records must be addressed within the broader context of the policies, standards and practices that deal with the management of all forms of recorded information, even though specific types of media may be handled differently. The National Archives and Records Service endorses SANS 15489 Information and documentation - Records management - Part 1: General and Part 2: Guidelines as the required benchmarking tool for records management and, in terms of its statutory mandate, requires governmental bodies to put the necessary infrastructure, policies, strategies, procedures and systems in place to ensure that records in all formats are managed in an integrated manner. The National Archives and Records Service also recommends compliance with the National Intelligence Agency's Minimum Information Security Standard¹ and the Department of Public Service and Administration's Draft Information Security Policies².

¹ To obtain copies of this standard contact the National Intelligence Agency, Private Bag X87, PRETORIA, 0001, tel. (012) 427 4000, fax (012) 427 4651.

² Department of Public Service and Administration, *Draft Information Security Policies. Securing Information in the Digital Age.* http://www.info.gov.za/otherdocs/2001/infosecure.pdf

The National Archives and Records Service also endorses the following standards with a view that they would guide governmental bodies in creating authoritative and reliable records:

- SANS 15801: Electronic imaging Information stored electronically Recommendations for trustworthiness and reliability;
- SANS 17799: Information Technology Security techniques Code of Practice for Information Security Management³; and
- SANS 23081: Information and documentation Records management processes Metadata for records Part 1: Principles.⁴ These guidelines were sourced from this standard.

1.3 Objective of this publication

While the National Archives and Records Service of South Africa Act, 1996 assigns responsibility for determining the conditions subject to which electronic systems should be managed to the National Archivist, the heads of governmental bodies are accountable for the implementation of the National Archives and Records Service's requirements.

The purpose of this publication is to guide governmental bodies regarding the minimum metadata required for long-term preservation of electronic records and to assist governmental bodies to design a metadata schema. Documenting metadata schemas will enable governmental bodies to develop an understanding of which metadata they need to capture to enable them to sustain authentic and reliable records over time.

The metadata elements contained in the attached metadata set are considered mandatory to enable the long-term preservation of records. However, since the capturing of metadata is also dependent on the business needs of an office and the specific regulatory environment within which the office operates, governmental bodies could add as many other metadata elements as they may find necessary to fulfill their needs.

This metadata document should be read in conjunction with the National Archives and Records Service's Managing electronic records in governmental bodies: Policy, principles and requirements, the draft Functional Specification for Integrated Document and Records Management Solutions⁵ as well as SANS 15489 Information and Documentation – Records Management and SANS 23081: Information and documentation - Records Management Processes – Metadata for Records.

1.4 Intended audience

The metadata requirements set are applicable to all governmental bodies viz. any legislative, executive, judicial or administrative organ of state (including a statutory body) at the national level of government, and until provincial archival legislation takes effect, also all provincial administrations and local authorities. As soon as archival legislation comes into force in a specific province, such provincial offices and local authorities will receive specific guidelines from the relevant

³ This code of practice could be used by governmental bodies that are not subject to the National Intelligence Agency's (NIA) *Minimum Information Security Standard (MISS)* to guide the design of information security policies and implementations. Governmental bodies that are subject to the MISS should consult with NIA before they use this code.

⁴ To obtain copies of all the above-mentioned standards contact the South African Bureau of Standards' Standards Sales Division at: Office address: 1 Dr Lategan Road, Groenkloof, Pretoria; Postal Address: Private Bag X191, Pretoria, 0001; Telephone: (012) 428-6883; Fax: (012) 428-6928; E-mail: sales@sabs.co.za

⁵ The draft functional specification is currently under revision. Copies of the original draft can be obtained from Louisa Venter, Tel. (012) 323 5300; e-mail Louisa.Venter@dac.gov.za

provincial archives service. The guidelines issued by the provincial archives services will not be inconsistent with these guidelines. Should a provincial archives service prefer to continue using these guidelines, the guidelines should be read in conjunction with that province's specific archives and records management legislation.

2. WHAT IS RECORDS MANAGEMENT METADATA AND WHY IS IT IMPORTANT?

2.1 Definition

SANS 15489 Information and Documentation - Records Management describes the broad records management principles needed to sustain authentic electronic records. It describes metadata as "data describing context, content and structure of records and their management through time". SANS 23081 Information and documentation - Records Management Processes - Metadata for Records elaborates by saying "metadata are structured or semi-structured information that enables the creation, registration, classification, access, preservation and disposition of records through time and with and across access domains Metadata can be used to identify, authenticate and contextualise records and the people, processes and systems that create, manage, maintain and use them and the policies that govern them." Metadata is descriptive data that gives context to electronic documents. Without the necessary descriptive metadata attached a document cannot be considered to be a record. Descriptive metadata gives information about where a record comes from, who the creator was, when it was created, where it is located, etc. Metadata also contains information describing the systems that generated the records and it also includes information on records management processes and preservation processes like migration procedures and actions, as well as any other preservation actions taken on records.

SANS 23081 also states that "metadata defines the record at its point of capture, fixes the record into its business context and establishes management control over it. During the existence of records or their aggregates, new layers of metadata will be added, because of new uses in other business contexts. This means that metadata continue to accrue over time, adding layers of information relating to the context, the records management processes and the business processes in which the records are used. It also adds layers of information relating to structural changes to the record or its appearance". The capturing of this metadata is necessary to ensure that authentic and reliable records are sustained for as long as they are required for functional, evidential or historical purposes.

2.2 Benefits of capturing metadata

SANS 23081 identifies the following benefits of capturing metadata8:

- a) protecting records as evidence and ensuring their accessibility, and usability through time,
- b) facilitating the ability to understand the records,
- c) supporting and ensuring the evidential value of records,
- d) helping to ensure the authenticity, reliability and integrity of records,
- e) supporting and managing access, privacy and rights,
- f) supporting efficient retrieval,
- g) supporting interoperability strategies by enabling authoritative capture of records created in diverse technical and business environments and their sustainability for as long as required,

⁶ SANS 23081 – Information and Documentation – Records management processes – Metadata for records- part 1: Principles, p. 1.

⁷ SANS 23081 – Information and Documentation – Records management processes – Metadata for records- Part 1: Principles, pp 1-4.

⁸ SANS 23081 – Information and Documentation – Records management processes – Metadata for records- Part 1: Principles, pp. 2-3.

- h) providing logical links between records and the context of their creation, and maintaining them in a structured, reliable and meaningful way,
- supporting the identification of the technological environment in which digital records were created and the management of the technological environment in which they are maintained in order that authentic records can be reproduced for as long as they are needed, and
- j) supporting efficient and successful migration of records from one environment or computer to another or any other preservation strategy.

3. PRINCIPLES FOR CAPTURING AND MANAGING METADATA

3.1 Roles and responsibilities

Creating and maintaining metadata to sustain authentic records over time requires attention, resources and staff. Capturing metadata is not a once off action. Metadata should be captured at creation and should be updated and maintained as a record moves through its life-cycle and while records management processes are applied to it to ensure that the record remains authentic evidence of the transactions it relates to.

Specific accountability for the management of metadata should preferably be assigned to the records manager in co-operation with the IT manager. The records manager should be mandated to monitor the creation of metadata and to take corrective actions when required. The reason is that metadata has an accruing nature. Different people are involved in metadata capturing at different stages in a record's life-cycle. It is important that roles and responsibilities regarding metadata capturing and metadata management are defined in the electronic records management policy, to ensure that reliable metadata is captured.

According to SANS 230819:

- Records management professionals are responsible for the reliability, authenticity, usability and integrity of metadata associated with records, and for training users on capturing, managing and using metadata. Records management professionals participate in the definition of metadata requirements, develop related policies and strategies, and monitor the process of metadata creation.
- All employees are responsible and accountable for ensuring the accuracy and completeness of the records management metadata for which they are responsible.
- Executives are responsible for ensuring that internal controls are in place so that customers, auditors, courts, and other authorized users can rely on the information that the organization produces. Executives are responsible for supporting the use of records management metadata and related policies throughout the organization.
- Information technology personnel are responsible for the reliability, usability and integrity of the systems used to capture and maintain metadata. They are responsible for ensuring that all records management metadata is linked to the related records and that these links are maintained.

3.2 Types of metadata

According to SANS 23081¹⁰ the following types of metadata are important in the records management environment:

- a) Metadata about the records. This includes metadata about
 - the identity of the record
 - unique identifier
 - record name
 - record structure
 - data and time of creation

⁹ SANS 23081: Information and documentation – Records management processes – Metadata for records – Part 1: Principles, pp 12-18.

¹⁰ SANS 23081: Information and documentation – Records management processes – Metadata for records – Part 1: Principles, pp 12-18.

- relationship with other records
- the identity of the creator
- access security restrictions
- b) Metadata about policy, mandates and business rules. This includes metadata about why (policy and mandate) records were created and how (business rules) they were created.
- c) Metadata about business processes. This includes metadata about the functions and activities that created the records and to which the records relate.
- d) Metadata about records management processes. This includes metadata about file plans, disposal authorities and retention periods, as well as about the authorised individuals that were given rights to execute the records management process and the date and time such processes were performed.

3.3 Managing metadata as records

Capturing metadata throughout a record's life-cycle ensures that records can be proven to be authentic and reliable. However, should the metadata be tampered with, the reliability and authenticity of the records it pertains to is affected immediately.

Metadata contributes to the "record-ness" of a record. Without metadata to enable understanding of a record in the context of its creation a record is only a document. Metadata makes a document a record, by fixing it to the context in which it was created.

It is of the utmost importance that metadata should be protected against alterations and tampering like all other records should be protected. It should never be possible to edit system generated metadata. Due to human error, it must however be possible for an authorised user, under certain circumstances, to access the user generated metadata records to edit it. This would for example be required when records were allocated to incorrect folders in the file plan. This delegation to an authorised user should be documented in the electronic records management policy. The policy should also clearly state under which circumstances changes to metadata may be made.

To ensure that all changes to metadata are auditable an audit trail should be captured for all events affecting the metadata.

The metadata repository should be included in the back-up and disaster recovery strategy. It is no use backing up the records without backing up the metadata. The metadata repository carries the contextual information needed to understand the records, should it be necessary to recover records from back-up media. Without the metadata attached it is impossible to recover authentic records.

The same applies to the migration of metadata. Metadata is also format dependent. It would be of no use to migrate records across hardware and software changes to keep them accessible without doing the same for the metadata. Accessibility would not be of value if the records cannot be understood in context.

3.4 Capturing metadata

Most users rely on metadata to find information, but are unaware of the fact that it even exists. Governmental bodies should create an awareness of the purpose, creation and usefulness of metadata. The successful implementation of a metadata schema is very dependent on the co-operation of the users.

Not all users understand the benefit of capturing metadata and because they did not have to capture metadata in the paper-based environment, they perceive it to be additional work that they have to do on top of the normal workload. It is crucial that users understand that metadata accrues as a record moves through its life-cycle and records management processes and that it may be necessary to capture different pieces of metadata at different stages in a records life-cycle.

Manual capturing of metadata is a very unpopular task and it is recommended that as much metadata as possible should be system generated, based on choice lists, sourced from other sources or inherited from aggregation levels. Inheritance is the principle whereby an object can take on a metadata attribute of its "parent" entity e.g. a record that is filed into a volume of a folder will inherit the metadata of the volume. The volume in turn could inherit its metadata from the folder of which it is a part, while the folder could inherit its metadata from the series it belongs to, etc.

3.5 Storing metadata

The National Archives and Records Service does not yet have a long-term preservation infrastructure to take archival electronic records into custody. A feasibility study to develop the infrastructure, possibly as part of a Public-Private Partnership, is being planned. The solution recommended for long-term digital preservation would influence the decision whether metadata should be stored as a separate record or whether the National Archives and Records Service would require that metadata should be embedded in and encapsulated with the record it pertains to. Until such time that a decision in this regard is available it is recommended that the metadata should be maintained in a separate repository, taking the requirements in par. 3.3 above into account.

3.6 Designing a metadata schema

Metadata is only of value if all the users understand the usefulness of capturing metadata and if they have a common understanding of the precise meaning and use of each metadata element. It is therefore necessary to explain the value and use of metadata in a metadata schema. Users should understand that metadata helps a governmental body to:

- meet legal and regulatory requirements by proving authenticity;
- meet records management requirements by providing contextual information and regulating retention and disposal; and
- · enable retrieval of records.

A metadata schema is a semantic and logically structured definition of metadata elements. A metadata schema documents the internal relationships between different metadata elements, e.g. the relationship between folders, series and functions in a file plan.

Designing a metadata schema will assist governmental bodies to make a decision about which metadata to capture to:

- cater for their business needs;
- ensure that they comply with legal and regulatory requirements;

- manage risks inherent in record keeping;
- ensure that in the long term they are able to link records back to the functions that created them.

The schema should also document the rules for managing metadata by documenting:

- · responsibilities;
- what metadata to capture:
- where the metadata should be captured from;
- according to what standards the metadata should be captured;
- where to store the metadata;
- how to protect the authenticity of the metadata;
- which laws, policies, and business rules applied to the creation of the records.

There are a number of international studies under way to determine which metadata should be kept to ensure long-term accessibility of records and a number of metadata schemas exist. These metadata schemas are not necessarily applicable word for word to the South African environment. Governmental bodies should ensure that they capture the minimum metadata described in this document to enable the long-term preservation of the records and should ensure that they capture as many other metadata elements as are necessary to ensure the continued integrity of the records. The *Minimum Mandatory Metadata Elements* described in part 4 of this document should be used as the starting point for each governmental body to design and document its own metadata schema.

The *Minimum Mandatory Metadata Elements* in part 4 contains generic metadata requirements and should not be considered sufficient to replace the need for the design of a metadata schema that is tailor-made to the business requirements of a specific governmental body. The metadata set would only become a proper metadata schema when it is designed to manage risk in a specific implementation.

A metadata schema should

- define the meaning, within a specific office, of the data that should be captured into a metadata field;
- define the choices to be made for those instances where choices are allowed;
- define the source of the data, e.g. whether the data is sourced from:
 - a network log-in, e.g. name of author;
 - from the system e.g. date/time;
 - from authentication systems like a directory access protocol (like LDAP) that contains details about each individual's role, access rights, work units, etc.;
 - from workflow systems for process detail;
 - from e-mail systems for transmission data;
 - from the creating application e.g. application type, date of creation, file name;
 - from a thesaurus;
 - from a template e.g. file reference, document type, etc.

Should metadata be sourced from other systems it is important that the data should be copied to and not only linked to the metadata repository. The rationale behind this is that the information in the source system may be changed, which will cause the original metadata that was captured for the record to be lost. This is a problem for proving authenticity. It is also a problem if records are transferred into archival custody and the metadata is lost because the source system is not transferred along with the records.

3.7 Metadata registry

Metadata in different systems of the same governmental body is often incomplete and incompatible, causing incomplete information retrieval. It is advisable that governmental bodies give consideration to establishing a metadata registry to enable them to map the metadata in different systems to each other to facilitate automatic translation of metadata elements between systems to achieve interoperability.

Guidelines for establishing and maintaining metadata registries are contained in the ISO 11179 – *Information technology - Metadata registries (MDR)* series of standards¹¹.

¹¹ This set of standards is not currently under consideration for adoption as South African national standards. To obtain copies of the ISO standard contact the South African Bureau of Standards' Standards Sales Division at: Office address: 1 Dr Lategan Road, Groenkloof, Pretoria; Postal Address: Private Bag X191, Pretoria, 0001; Telephone: (012) 428-6883; Fax: (012) 428-6928; E-mail: sales@sabs.co.za

4. MINIMUM MANDATORY METADATA ELEMENTS

Note: The attached metadata set covers the whole life-cycle of a record and different parts will be completed by different users at different stages in the record's life-cycle.

	Identity
Metadata element	Ilmiano identificu*
Metadata element Indexing Method	Unique identifier* System generated
Purpose and Description	The system ID that uniquely identifies a particular record and
Purpose and Description	distinguishes an object from others in a database.
Responsibility	System administrator ensure proper configuration.
Metadata element	Record title*
Indexing Method	User defined/system generated
Purpose and Description	The title of the record given to it by the user.
Turpose and Description	 Must be a sensible name to assist with identification and
	retrieval.
	To be done according to a file naming convention where
	applicable.
	• For e-mail messages usually the subject line of the message,
	however if the subject line is not a sensible description of the
	content of the message it must be able to be edited in the
	metadata capturing form.
Responsibility	User
Metadata element	File plan reference number*
Indexing Method	Configure
Indexing Method Purpose and Description	ConfigureThe numbering convention as it appears in the file plan.
	 Configure The numbering convention as it appears in the file plan. To populate automatically when a subject is chosen from the
Purpose and Description	 Configure The numbering convention as it appears in the file plan. To populate automatically when a subject is chosen from the file plan.
Purpose and Description Responsibility	 Configure The numbering convention as it appears in the file plan. To populate automatically when a subject is chosen from the file plan. User
Purpose and Description Responsibility Metadata element	 Configure The numbering convention as it appears in the file plan. To populate automatically when a subject is chosen from the file plan. User Main series description
Purpose and Description Responsibility Metadata element Indexing Method	 Configure The numbering convention as it appears in the file plan. To populate automatically when a subject is chosen from the file plan. User Main series description Configure
Purpose and Description Responsibility Metadata element	 Configure The numbering convention as it appears in the file plan. To populate automatically when a subject is chosen from the file plan. User Main series description Configure The main series title as it appears in the file plan.
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Purpose and Description Responsibility Metadata element Indexing Method Purpose and Description Responsibility Metadata element	 Configure The numbering convention as it appears in the file plan. To populate automatically when a subject is chosen from the file plan. User Main series description Configure The main series title as it appears in the file plan. To populate automatically when lowest level subject is chosen. Scanning station and/or user Sub-series description Configure The sub series as it appears in the file plan.
Purpose and Description Responsibility Metadata element Indexing Method Purpose and Description Responsibility Metadata element Indexing Method	 Configure The numbering convention as it appears in the file plan. To populate automatically when a subject is chosen from the file plan. User Main series description Configure The main series title as it appears in the file plan. To populate automatically when lowest level subject is chosen. Scanning station and/or user Sub-series description Configure The sub series as it appears in the file plan. To populate automatically when lowest level subject is
Purpose and Description Responsibility Metadata element Indexing Method Purpose and Description Responsibility Metadata element Indexing Method	 Configure The numbering convention as it appears in the file plan. To populate automatically when a subject is chosen from the file plan. User Main series description Configure The main series title as it appears in the file plan. To populate automatically when lowest level subject is chosen. Scanning station and/or user Sub-series description Configure The sub series as it appears in the file plan.

^{*} These are minimum metadata elements that should be retained as a record in the records repository whenever records are destroyed/transferred. Keeping this information as a record, will facilitate compliance with the Promotion of Access to Information Act, 2000 and the Promotion of Administrative Justice Act, 2000.

Metadata element	File plan subject*
Indexing Method	User defined from a pick list
Purpose and Description	The formal subject of the folder as it appears in the file plan.
Fulpose and Description	 To be picked by the user when creating a record or by the
	indexer at scanning time.
Responsibility	Scanning station and/or end user
Metadata element	Folder volume/part number*
Indexing Method	Configure
Purpose and Description	The consecutive number of the file/folder part as it appears in
	the file plan.
	The system should only allow filing in open folders and should
	populate the volume number automatically when a subject is
	chosen.
Responsibility	System administrator ensures proper configuration
	Context
Metadata element	Author/originator/creator*
Indexing Method	System generated/user defined
Purpose and Description	The intelligent name, rather than login id, of the person or
	team that is the author of the record. Preferably picked up
	from the network log-in.
	The person by who an e-mail was sent. Preferably picked up
	from the e-mail transmission data.
	The person whom signed the paper-based record that was
	scanned/profiled into the system. This would be a user entry
Desperability	at scanning station.
Responsibility	 System administrator ensures proper configuration. Scanning station for information that cannot populate
	 Scanning station for information that cannot populate automatically.
Metadata element	Originating organization
Indexing Method	System generated/user defined
Purpose and Description	The name of the specific unit in the organization in which the
. a. pose and 2 compain	original record was created. Preferably picked up from the
	network log in if created internally.
	If the record was e-mailed this should preferably be picked up
	from the transmission data. If not possible it should be user
	defined.
	If received from outside in paper-based format and
	scanned/indexed into the system it should be user defined at
	the scanning station at time of indexing.
Responsibility	System administrator ensures proper configuration.
	Scanning station for information that cannot populate
	automatically.

* These are minimum metadata elements that should be retained as a record in the records repository whenever records are destroyed/transferred. Keeping this information as a record, will facilitate compliance with the Promotion of Access to Information Act, 2000 and the Promotion of Administrative Justice Act, 2000.

Metadata element	Originating sub-office/unit
Indexing Method	System generated/user defined
Purpose and Description	 The name of the specific sub office/directorate/branch in the organization where the record was created. This should preferably be picked up from the network log in. If the record was e-mailed the information should be picked up from the transmission data. If received from outside in paper-based format and scanned/indexed into the system it should be captured at time of indexing.
Responsibility	 System administrator ensures proper configuration. Scanning station for information that cannot populate automatically.
Metadata element	Name of person who declared the record
Indexing Method	System generated
Purpose and Description	 The intelligent name, rather than login id, of the person that declared the record. It is the point at which the record came under the full control of the system. The information is necessary to prove the integrity of a record for admissibility purposes.
Responsibility	System administrator ensures proper configuration.
Metadata element	Addressee
Indexing Method	System generated
Purpose and Description	 Mandatory for e-mail. Preferably picked up from transmission data. Optional for other record types. Identifying the person(s) the record was dispatched to.
Responsibility	System administrator ensures proper configuration.
Metadata element	Distribution list/Recipients
Indexing Method	System generated
Purpose and Description	 Mandatory for e-mail. Preferably picked up from transmission data. The intelligent names of all recipients of an e-mail message.
Responsibility	System administrator ensures proper configuration.

^{*} These are minimum metadata elements that should be retained as a record in the records repository whenever records are destroyed/transferred. Keeping this information as a record, will facilitate compliance with the Promotion of Access to Information Act, 2000 and the Promotion of Administrative Justice Act, 2000.

	Relationships
Metadata element	Related file/folder
Indexing Method	System generated/User defined
Purpose and Description	 Identifies instances where records have direct relationships to other records, e.g. in a specific business process. Will assist in managing disposal conflicts, and the provision of information in terms of the Promotion of Access to Information Act, as well as with issues of legal admissibility.
Responsibility	End user
Metadata element	Linkage between record elements
Indexing Method	System generated
Purpose and Description	To enable the linking together of physically separate records or elements that constitute the complete record (for example, an attachment to an e-mail message, an e-form and its data, metadata).
Responsibility	System administrator ensures proper configuration.
	Date information
Metadata element	Creation date
Indexing Method	User defined/system generated
Purpose and Description	 the date that the document was first created prior to being declared as a record or the date of the e-mail sent/received. This should be generated by the system The date on the paper-based record that was scanned /indexed into the system. The date format is ccyy-mm-dd.
	The date format is ccyy min dd.
Responsibility	System administrator ensures proper configuration.Scanning station or end user for information that cannot
Responsibility Metadata element	System administrator ensures proper configuration.
Metadata element	 System administrator ensures proper configuration. Scanning station or end user for information that cannot populate automatically. Date checked in
,	 System administrator ensures proper configuration. Scanning station or end user for information that cannot populate automatically.
Metadata element Indexing Method	 System administrator ensures proper configuration. Scanning station or end user for information that cannot populate automatically. Date checked in System generated The date the record was checked into the system.
Metadata element Indexing Method Purpose and Description	 System administrator ensures proper configuration. Scanning station or end user for information that cannot populate automatically. Date checked in System generated The date the record was checked into the system. The date format is ccyy-mm-dd.
Metadata element Indexing Method Purpose and Description Responsibility	 System administrator ensures proper configuration. Scanning station or end user for information that cannot populate automatically. Date checked in System generated The date the record was checked into the system. The date format is ccyy-mm-dd. System administrator ensures proper configuration
Metadata element Indexing Method Purpose and Description Responsibility Metadata element	 System administrator ensures proper configuration. Scanning station or end user for information that cannot populate automatically. Date checked in System generated The date the record was checked into the system. The date format is ccyy-mm-dd. System administrator ensures proper configuration Date declared as record

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Metadata element	Folder open/close dates*
Indexing Method	System generated
Purpose and Description	The date the folder was created (or on which the first record
	was added) and the date the folder was closed (or on which
	the last record was added).
	The date format is ccyy-mm-dd.
Responsibility	System administrator ensuress proper configuration
Metadata element	Part/volume open/close dates*
Indexing Method	System generated The date the specific part or volume of the folder was created.
Purpose and Description	• The date the specific part or volume of the folder was created (or on which the first record was added) and the date the part
	or volume of the folder was closed (or on which the last
	record was added).
	 This date will be used to calculate retention periods.
	The date format is ccyy-mm-dd.
Responsibility	System administrator ensure proper configuration
Metadata element	Date/time delivered
Indexing Method	System generated
Purpose and Description	Mandatory for e-mail.
	The date and time an e-mail was delivered into another
	system.
	The information is necessary to prove the integrity of a record
	for admissibility purposes.
Dognonoibility	The date format is ccyy-mm-dd.
Responsibility Motadata element	System administrator ensures proper configuration
Metadata element	Date/time received
Metadata element Indexing Method	Date/time received System generated
Metadata element	Date/time received System generated • Mandatory for e-mail.
Metadata element Indexing Method	Date/time received System generated Mandatory for e-mail. The date and time an e-mail was received.
Metadata element Indexing Method	Date/time received System generated Mandatory for e-mail. The date and time an e-mail was received.
Metadata element Indexing Method	 Date/time received System generated Mandatory for e-mail. The date and time an e-mail was received. The information is necessary to prove the integrity of a record
Metadata element Indexing Method Purpose and Description Responsibility	 Date/time received System generated Mandatory for e-mail. The date and time an e-mail was received. The information is necessary to prove the integrity of a record for admissibility purposes. The date format is ccyy-mm-dd. System administrator ensures proper configuration
Metadata element Indexing Method Purpose and Description Responsibility Metadata element	 Date/time received System generated Mandatory for e-mail. The date and time an e-mail was received. The information is necessary to prove the integrity of a record for admissibility purposes. The date format is ccyy-mm-dd. System administrator ensures proper configuration Date of last edit
Metadata element Indexing Method Purpose and Description Responsibility Metadata element Indexing Method	 Date/time received System generated Mandatory for e-mail. The date and time an e-mail was received. The information is necessary to prove the integrity of a record for admissibility purposes. The date format is ccyy-mm-dd. System administrator ensures proper configuration Date of last edit System generated
Metadata element Indexing Method Purpose and Description Responsibility Metadata element	 Date/time received System generated Mandatory for e-mail. The date and time an e-mail was received. The information is necessary to prove the integrity of a record for admissibility purposes. The date format is ccyy-mm-dd. System administrator ensures proper configuration Date of last edit System generated Date of last changes made to the document before it was
Metadata element Indexing Method Purpose and Description Responsibility Metadata element Indexing Method	 Date/time received System generated Mandatory for e-mail. The date and time an e-mail was received. The information is necessary to prove the integrity of a record for admissibility purposes. The date format is ccyy-mm-dd. System administrator ensures proper configuration Date of last edit System generated Date of last changes made to the document before it was declared a record.
Metadata element Indexing Method Purpose and Description Responsibility Metadata element Indexing Method	 Date/time received System generated Mandatory for e-mail. The date and time an e-mail was received. The information is necessary to prove the integrity of a record for admissibility purposes. The date format is ccyy-mm-dd. System administrator ensures proper configuration Date of last edit System generated Date of last changes made to the document before it was declared a record. The information is necessary to prove the integrity of a record
Metadata element Indexing Method Purpose and Description Responsibility Metadata element Indexing Method	 Date/time received System generated Mandatory for e-mail. The date and time an e-mail was received. The information is necessary to prove the integrity of a record for admissibility purposes. The date format is ccyy-mm-dd. System administrator ensures proper configuration Date of last edit System generated Date of last changes made to the document before it was declared a record. The information is necessary to prove the integrity of a record for admissibility purposes.
Metadata element Indexing Method Purpose and Description Responsibility Metadata element Indexing Method Purpose and Description	 Date/time received System generated Mandatory for e-mail. The date and time an e-mail was received. The information is necessary to prove the integrity of a record for admissibility purposes. The date format is ccyy-mm-dd. System administrator ensures proper configuration Date of last edit System generated Date of last changes made to the document before it was declared a record. The information is necessary to prove the integrity of a record for admissibility purposes. The date format is ccyy-mm-dd.
Metadata element Indexing Method Purpose and Description Responsibility Metadata element Indexing Method Purpose and Description Responsibility	 Date/time received System generated Mandatory for e-mail. The date and time an e-mail was received. The information is necessary to prove the integrity of a record for admissibility purposes. The date format is ccyy-mm-dd. System administrator ensures proper configuration Date of last edit System generated Date of last changes made to the document before it was declared a record. The information is necessary to prove the integrity of a record for admissibility purposes. The date format is ccyy-mm-dd. System administrator ensure proper configuration
Metadata element Indexing Method Purpose and Description Responsibility Metadata element Indexing Method Purpose and Description Responsibility Metadata element	 Date/time received System generated Mandatory for e-mail. The date and time an e-mail was received. The information is necessary to prove the integrity of a record for admissibility purposes. The date format is ccyy-mm-dd. System administrator ensures proper configuration Date of last edit System generated Date of last changes made to the document before it was declared a record. The information is necessary to prove the integrity of a record for admissibility purposes. The date format is ccyy-mm-dd. System administrator ensure proper configuration Record version creation date
Metadata element Indexing Method Purpose and Description Responsibility Metadata element Indexing Method Purpose and Description Responsibility Metadata element Indexing Method	 System generated Mandatory for e-mail. The date and time an e-mail was received. The information is necessary to prove the integrity of a record for admissibility purposes. The date format is ccyy-mm-dd. System administrator ensures proper configuration Date of last edit System generated Date of last changes made to the document before it was declared a record. The information is necessary to prove the integrity of a record for admissibility purposes. The date format is ccyy-mm-dd. System administrator ensure proper configuration Record version creation date System generated
Metadata element Indexing Method Purpose and Description Responsibility Metadata element Indexing Method Purpose and Description Responsibility Metadata element	 System generated Mandatory for e-mail. The date and time an e-mail was received. The information is necessary to prove the integrity of a record for admissibility purposes. The date format is ccyy-mm-dd. System administrator ensures proper configuration Date of last edit System generated Date of last changes made to the document before it was declared a record. The information is necessary to prove the integrity of a record for admissibility purposes. The date format is ccyy-mm-dd. System administrator ensure proper configuration Record version creation date System generated
Metadata element Indexing Method Purpose and Description Responsibility Metadata element Indexing Method Purpose and Description Responsibility Metadata element Indexing Method	System generated • Mandatory for e-mail. • The date and time an e-mail was received. • The information is necessary to prove the integrity of a record for admissibility purposes. • The date format is ccyy-mm-dd. System administrator ensures proper configuration Date of last edit System generated • Date of last changes made to the document before it was declared a record. • The information is necessary to prove the integrity of a record for admissibility purposes. • The date format is ccyy-mm-dd. System administrator ensure proper configuration Record version creation date System generated • Creation date of record version in the electronic repository.
Metadata element Indexing Method Purpose and Description Responsibility Metadata element Indexing Method Purpose and Description Responsibility Metadata element Indexing Method	System generated • Mandatory for e-mail. • The date and time an e-mail was received. • The information is necessary to prove the integrity of a record for admissibility purposes. • The date format is ccyy-mm-dd. System administrator ensures proper configuration Date of last edit System generated • Date of last changes made to the document before it was declared a record. • The information is necessary to prove the integrity of a record for admissibility purposes. • The date format is ccyy-mm-dd. System administrator ensure proper configuration Record version creation date System generated • Creation date of record version in the electronic repository. • The information is necessary to prove the integrity of a record

	Version control
Metadata element	Document revision number
Indexing Method	System generated
Purpose and Description	A sequential number for each revision of a document, before it is finalized and declared a record.
Responsibility	System administrator ensures proper configuration
Metadata element	Record version number
Indexing Method	System generated
Purpose and Description	A sequential number for each version of a record kept in the electronic repository.
Responsibility	System administrator ensures proper configuration
	Access control
Metadata element	Access restrictions
Indexing Method	Configure based on policy
Purpose and Description	Identifying restrictions on access to the record as a whole by
	indicating permission to user and groups.
	Will be inherited from the file plan, and the record type.
Responsibility	 Records manager to define access control on file plan/record type. Risk manager and security manager to assist the records manager. System administrator to ensure proper configuration. User to allocate if not populated automatically.
Metadata element	Access restriction review date
Indexing Method	User defined/or configured beforehand based on a policy
Purpose and Description	The date, preferably annual, on which the access restrictions should be reviewed.
Responsibility	Records manager
Metadata element	Security classification
Indexing Method	User defined/ configured based on policy
Purpose and Description	 Level of security classification, which will have implications for user access restrictions, as indicated by the Minimum Information Security Standard. Will be inherited from the file plan and record type or set by users.
Responsibility	 Records manager to define access control on file plan/record type. Risk manager and security manager to assist the records manager. System administrator to ensure proper configuration. User to allocate if not populated automatically.

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Motodata element	Consitivity review date
Metadata element	Sensitivity review date
Indexing Method	User defined/or configured beforehand based on a policy
Purpose and Description	The date at, or time period after, which a review of the security
B	classification is appropriate.
Responsibility	Records manager to define access control on file plan/record
	type.
	Risk manager and security manager to assist the records
	manager.
	System administrator to ensure proper configuration.
	User to allocate if not populated automatically.
	Disposal control
Metadata element	Disposal instruction
Indexing Method	Configured
Purpose and Description	The action to be taken at the end of the life cycle of the
	record, e.g. destroy/delete or keep permanently.
	Inherited from the specific record type and the disposal
	schedule.
	Based on written disposal authority issued by National
	Archives and Records Service.
Responsibility	Records manager defines on file plan and record type.
	System administrator ensures proper configuration.
Metadata element	Retention period
Indexing Method	Configured
Purpose and Description	The standard period of time for which records should be
	retained before the disposal action is carried out.
	Inherited from the specific record type and the disposal
	schedule.
Responsibility	Records manager defines on file plan and record type.
	System administrator ensures proper configuration.
Metadata element	Disposal authority number*
Indexing Method	Configured
Purpose and Description	The unique disposal authority number issued by the
	National/Provincial Archives that authorizes the action to be
	taken against the record.
	Inherited from the specific record type and the disposal ashedule
Door on a libitity	schedule.
Responsibility	Records manager defines on file plan and record type. Contage administrator appropriate plan and record type.
	System administrator ensures proper configuration.

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Metadata element	Disposal action review date
Indexing Method	User defined/system generated
Purpose and Description	The date on which the scheduled disposal action was
Tarpose and Description	reviewed.
	The date format is ccyy-mm-dd.
Responsibility	Records manager
Metadata element	Disposal action review comments
Indexing Method	User defined/ configured based on policy
Purpose and Description	A textual description indication why the disposal action was
. a. pose and 2 see speed.	reviewed and what decision has been taken against the record.
Responsibility	Records manager
Metadata element	Destruction/ transfer date*
Indexing Method	System generated
Purpose and Description	The date on which the records were destroyed/transferred.
	The date format is ccyy-mm-dd.
Responsibility	System administrator ensures proper configuration.
Metadata element	Identity of person authorizing the review/destruction/
	transfer*
Indexing Method	System generated
Purpose and Description	The intelligent name, rather than login id, of the person that
	authorized the review of the disposal instruction of the records
	and/or who authorized the destruction/deletion/transfer of the
	records.
Responsibility	System administrator ensures proper configuration.
Metadata element	Transfer location
Indexing Method	User defined/system generated
Purpose and Description	A textual description of the location the records were transferred
Decree and the little	to.
Responsibility	System administrator ensures proper configuration
	Record type
Metadata element	Record type
Indexing Method	User defined from a pick list/built into templates
Purpose and Description	A description identifying the logical document/record types –
	e.g. report, memo, letter, which may be a useful aid to
	identification or processing choices, and which is used as a
	disposal mechanism.
	When not inherited from a document template, the user
De sus aux sile ilite.	should define from a pick list.
Responsibility	Records manager defines types. Contain administrator appropriate and app
	System administrator ensures proper configuration.

	Presentation and medium
Metadata element	Storage medium
Indexing Method	System generated
Purpose and Description	Indicates the medium on which a record is kept e.g. paper, CD, magnetic tape, etc.
Responsibility	Records manager defines medium.System administrator ensures proper configuration.
Metadata element	Format
Indexing Method	System generated
Purpose and Description	The physical application format type/file e.g. the 3-letter file type, such as .doc, .ppt, .gif, .msg, used in a Windows environment.
Responsibility	System administrator ensures proper configuration.
Metadata element	Presentation format
Indexing Method	System generated
Purpose and Description	Linking between versions where the same record is held in different formats for preservation and for viewing, or where sensitivity editing has resulted in creation of a variant version.
Responsibility	System administrator ensures proper configuration.
Metadata element	Language
Indexing Method	User defined/ configured to pick up from template
- ,	oser defined, comigared to plak up nom template
Purpose and Description	Identify the language the records was created in to enable retrieval, and linking to translations that might exist.
	Identify the language the records was created in to enable
Purpose and Description Responsibility	Identify the language the records was created in to enable retrieval, and linking to translations that might exist. System administrator ensures proper configuration. Location information
Purpose and Description Responsibility Metadata element	Identify the language the records was created in to enable retrieval, and linking to translations that might exist. System administrator ensures proper configuration. Location information Physical location
Purpose and Description Responsibility Metadata element Indexing Method	Identify the language the records was created in to enable retrieval, and linking to translations that might exist. System administrator ensures proper configuration. Location information Physical location Default from file plan
Purpose and Description Responsibility Metadata element	Identify the language the records was created in to enable retrieval, and linking to translations that might exist. System administrator ensures proper configuration. Location information Physical location
Purpose and Description Responsibility Metadata element Indexing Method	Identify the language the records was created in to enable retrieval, and linking to translations that might exist. System administrator ensures proper configuration. Location information Physical location Default from file plan • Physical storage location of the paper-based file and its contents. • Also the location of electronic records within a hierarchical
Purpose and Description Responsibility Metadata element Indexing Method	Identify the language the records was created in to enable retrieval, and linking to translations that might exist. System administrator ensures proper configuration. Location information Physical location Default from file plan • Physical storage location of the paper-based file and its contents.
Purpose and Description Responsibility Metadata element Indexing Method Purpose and Description	Identify the language the records was created in to enable retrieval, and linking to translations that might exist. System administrator ensures proper configuration. Location information Physical location Default from file plan Physical storage location of the paper-based file and its contents. Also the location of electronic records within a hierarchical storage management system. Records manager define.
Purpose and Description Responsibility Metadata element Indexing Method Purpose and Description Responsibility	Identify the language the records was created in to enable retrieval, and linking to translations that might exist. System administrator ensures proper configuration. Location information Physical location Default from file plan Physical storage location of the paper-based file and its contents. Also the location of electronic records within a hierarchical storage management system. Records manager define. System administrator ensures proper configuration.
Purpose and Description Responsibility Metadata element Indexing Method Purpose and Description Responsibility Metadata element	Identify the language the records was created in to enable retrieval, and linking to translations that might exist. System administrator ensures proper configuration. Location information Physical location Default from file plan Physical storage location of the paper-based file and its contents. Also the location of electronic records within a hierarchical storage management system. Records manager define. System administrator ensures proper configuration. Barcode (paper)

System information	
Metadata element	Technical platform
Indexing Method	System generated
Purpose and Description	Information regarding the platform application and format on which the records were generated.
Responsibility	System administrator ensures proper configuration.
Vital record information	
Metadata element	Vital record indicator
Indexing Method	User defined/ configured beforehand based on a policy
Purpose and Description	 An indication if the records: protect the enduring civil, legal, financial, property and other rights of the citizens of a country. These records may never be destroyed. are needed to continue operational responsibilities under disaster conditions. Office is to decide how many years' worth of records are needed to continue operating in disaster conditions – this will influence the retention period. protect the legal and financial rights of the governmental body. Office is to decide how many years' worth of records are needed to continue operating in disaster conditions – this will influence the retention period.
Responsibility	Records manager defines which qualify.System administrator ensures proper configuration.
Metadata element	Vital record review date
Indexing Method	User defined/ configured beforehand based on a policy
Purpose and Description	The date at, or time period after, which a review of the vital record status is appropriate.
Responsibility	Records manager defines beforehand.
	System administrator ensures proper configuration.
Audit information	
Metadata element	Audit trail
Indexing Method Purpose and Description	System generated Identification of users who have taken significant actions on the record through its lifecycle, the action taken (for example: create, edit, copy to new version, delete/transfer, etc), the date the action was taken.
Responsibility	 Records manager and risk manager define beforehand. System administrator ensures proper configuration.