

## TITLE

**ELECTRONIC RECORDS CONVERSION AND MIGRATION RECORDKEEPING****SCOPE**

Provincial: Electronic Records Conversion and Migration Programs

## DOCUMENT #

1133-05

**APPROVAL AUTHORITY**

Senior Provincial Director, Health Information Management (Delegated)

## INITIAL EFFECTIVE DATE

September 24, 2018

**SPONSOR**

Information Technology / Health Information Management

## REVISION EFFECTIVE DATE

Not applicable

**PARENT DOCUMENT TITLE, TYPE AND NUMBER**

Records Management Policy (#1133)

## SCHEDULED REVIEW DATE

September 24, 2021

**NOTE:** The first appearance of terms in bold in the body of this document (except titles) are defined terms – please refer to the Definitions section.

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**OBJECTIVES**

- To establish the consistent application of the *Records Management* Policy and Procedures and **recordkeeping** requirements for the **conversion, migration**, or both of **electronic records** to ensure the continuing **authenticity, integrity, reliability** and **usability** of the electronic records.

**PRINCIPLES**

- This Procedure applies when electronic records housed in a source system are converted/migrated to a target system and the target system becomes the authoritative repository for the electronic records. This includes, but is not limited to:
  - conversion and migration (including archiving) to overcome file format and/or software obsolescence which may result in the inaccessibility to electronic records over time; and
  - optimization of system performance by migrating infrequently accessed and/or low business value electronic records to a target system, commonly referred to as archiving.
- This Procedure does not apply when electronic records from a source system are replicated to a target system and the source system remains the authoritative repository for the electronic records.
- Compliance with legal and regulatory obligations shall be adhered to throughout the conversion and migration process.

- **Metadata** shall be persistently linked to the electronic record it describes and managed over the lifecycle of the electronic record. Metadata may assist in authenticating the electronic record for the purpose of business and Court proceedings.
- Conversion/migration of metadata and access logs is dependent on what is available in the source system.
- Resources expended to preserve electronic records shall be proportionate to the value and risk associated with the preservation of the electronic records.

## APPLICABILITY

Compliance with this document is required by all Alberta Health Services employees, members of the medical and midwifery staffs, Students, Volunteers, and other persons acting on behalf of Alberta Health Services (including contracted service providers as necessary) engaged in the planning, design and execution of electronic records conversion and migration (including archiving).

## ELEMENTS

### 1. Organizational Accountability

- 1.1 The business owner of the electronic records shall be accountable for all decisions relating to the conversion/migration of the electronic records in the source system.
- 1.2 The business owner may delegate their responsibilities under this Procedure to one of more individuals, such as repository owners, data owners and data stewards.
- 1.3 The Information Technology (IT) service owner shall assume overall responsibility for the execution of the activities set out in this Procedure.
- 1.4 The IT service owner shall engage the business owner and/or appointed business delegate(s) for their subject matter expertise in completing the electronic records retention assessment, **electronic records profiling** and metadata assessment activities in this Procedure.
- 1.5 Records and Information Management and/or Legal Services shall be consulted on issues such as electronic records retention, electronic records destruction, and legal holds to ensure all legal and regulatory obligations are met.
- 1.6 The IT service owner shall ensure that documentation, decisions and sign-offs resulting from the execution of this Procedure are captured, stored and retained in accordance with the *AHS Records Retention Schedule*.

## 2. Electronic Records Retention Assessment

- 2.1 The business owner/delegate shall assess the retention requirements of the electronic records in accordance with the AHS *Records Retention Policy* and *Records Retention Schedule* as follows (illustrated in Appendix A):
- a) Electronic records subject to a legal hold must be retained and shall be converted/migrated if the source system will no longer be accessible. Consult with Legal Services prior to any conversion/migration activities to ensure the purpose of the legal hold continues to be satisfied (see the *Legal Hold Procedure*);
  - b) Electronic records that have not yet met their retention requirements shall be converted/migrated;
  - c) Electronic records that have reached the end of their lifecycle are eligible for destruction, unless a legal hold applies (see section 2.1[a] of this Procedure and the *Records Destruction Procedure*);
  - d) Electronic records that are transitory and are still required for their short-term value shall be converted/migrated (see the *Transitory Records Procedure*).

## 3. Electronic Records Profiling

- 3.1 The IT service owner and business owner/delegate shall document the characteristics of the electronic records and decisions that pertain to the conversion/migration process, including:
- a) the essential characteristics (i.e. meaning, use or business value) of the electronic records that need to be preserved including associated metadata (see section 4.1);
  - b) steps taken to ensure the understanding of an electronic record is not lost if the appearance contributes to its meaning;
  - c) linked electronic records stored in separate **content** repositories;
  - d) the business requirements for accessibility, criticality and availability (e.g., high/low retrieval frequency, immediate/non-urgent turnaround);
  - e) the data quality of the electronic records and develop a plan for data of questionable quality that may include remediation, or statements of business and compliance risk if not converted and business impact;
  - f) the risk tolerance to the organization if electronic records are lost or corrupted as a result of the conversion/migration process (see the AHS *Enterprise Risk Management Policy* and *Enterprise Risk Management Framework*);

- g) the information security classification of the electronic records in the system (see the AHS *Information Classification Policy*);
- h) the access control model currently in place to restrict access to only authorized users in all conversion/migration environments.

#### 4. Metadata Management

- 4.1 The IT service owner and business owner/delegate shall ensure the required metadata needed to retain the ability to reproduce an authentic electronic record is converted/migrated and persistently linked to the electronic record. This includes, but is not limited to, the following:
- a) **Identity metadata** is captured at the time of electronic record creation and shall be maintained with the electronic record for as long as the electronic record exists. At a minimum, the creator, date and time of creation shall be converted/migrated.
  - b) **Administrative metadata** is added throughout the electronic record lifecycle and documents the access, use, changes, and management of the electronic records during the usual and ordinary course of business.
    - (i) Existing event history metadata shall be converted/migrated. At a minimum, the event type, event date/time, user identifier, and user role shall be converted/migrated with the electronic record to ensure the ability to make assertions on the authenticity of the electronic record.
    - (ii) Relationships defined through metadata shall be maintained during the conversion/migration process to ensure business, clinical and legal needs are met. This includes structural relationships between electronic records, links to electronic records in external repositories, and aggregate relationships.
    - (iii) Records retention metadata shall be converted/migrated.
    - (iv) Access logs shall be retained for each electronic record according to the *Records Retention Schedule*.
  - c) **Descriptive metadata** assist in the search and retrieval of electronic records and this metadata shall be converted/migrated to provide continued support to business operations, e-discovery, access and disclosure activities.
- 4.2 Any metadata of the electronic record that will not be converted/migrated shall be documented with an explanation of why the metadata was not converted/migrated.

- 4.3 The IT service owner shall ensure that administrative metadata is created to document the actions taken by the conversion/migration process on every electronic record:
- a) Event history metadata shall be created to include the event type, event date/time, user identifier, user role, and origin of the electronic record. The user role in this case is the conversion/migration process.

## 5. Recordkeeping Documentation

- 5.1 The IT service owner shall assess whether the following conditions existed at the time of the conversion/migration process and document the results of that assessment in the conversion/migration close-out documentation:
- a) The source system was operating properly at the time at which the conversion/migration process occurred; if it was not operating properly, it did not affect the integrity of the electronic records, there were no other reasonable grounds to doubt the integrity of the source system, and how these determinations were made;
  - b) The integrity of the electronic records contained within the source system was intact at the time the conversion/migration was performed;
  - c) The target system was operating properly at the time at which the conversion/migration process occurred;
  - d) The equipment used in the conversion/migration process was in good operating order at the time conversion/migration was performed and was supported by audit logs;
  - e) The hardware and software were properly authorized for use; and
  - f) The conversion/migration was successful and the electronic records continue to have integrity, reliability, and usability.
- 5.2 The business owner/delegate, with support from the IT service owner, shall perform validation and quality assurance on the converted/migrated electronic records and sign-off to verify that the conversion/migration process was successful.
- 5.3 The IT service owner shall document that any destruction of source electronic records was carried out only after the activities in section 5.1 and 5.2 of this Procedure have taken place.
- 5.4 The conversion/migration close-out documentation generated from sections 5.1 through 5.3 shall be retained as part of the target system documentation and shall follow the retention set out in the *Records Retention Schedule*.

## DEFINITIONS

**Administrative metadata** means the attributes related to the use and management of the electronic records throughout its lifecycle.

**Authenticity** means the record can be proven to be what it purports to be, to have been created or sent by the person purported to have created or sent it, and to have been created or sent at the time purported. (ISO 13008:2012)

**Content** means subject information of a document. (ISO 13008:2012)

**Conversion** means process of changing records from one format to another while maintaining the characteristics of the record. (ISO 13008:2012)

**Descriptive metadata** means attributes used to find and interpret the record. (CAN/CGSB-72.34-2017)

**Electronic record** means information that is recorded or stored on any medium in or by a computer system or other similar device, and can be read or perceived by a person or a computer system or other similar device, and includes a display, printout or other output of that information. (Alberta Evidence Act)

**Electronic Records Profiling** means to discover, understand and organize your records. The three major categories are structure discovery, content discovery and relationship discovery.

**Identity metadata** means metadata generated at the time of creation to identify the record. (CAN/CGSB-72.34-2017)

**Integrity** means the quality being complete and unaltered. (ISO 13008:2012)

**Metadata** means the data that describes the context, content, and structure of records and their management through time. (ISO 13008:2012)

**Migration** means the process of moving records, including their existing characteristics, from one hardware or software configuration to another without changing the format. (ISO 13008:2012).

**Recordkeeping** means the process of documenting and maintaining the content, context, and structure of the record during the life of the record to preserve the authenticity and evidentiary integrity of the records.

**Reliability** means the completeness and accuracy of the facts to which they attest. (ISO 13008:2012)

**Usability** means the ability to locate, retrieve, present and interpret the record. (ISO 13008:2012)

## REFERENCES

- Appendix A: *Electronic Records Conversion and Migration Recordkeeping Decision Chart*
- Alberta Health Services Governance Documents:
  - *Enterprise Risk Management Policy* (#1125)
  - *Information Classification Policy* (#1142)
  - *Records Management Policy* (#1133)
  - *Records Retention Schedule* (#1133-01)
  - *Records Destruction Procedure* (#1133-02)
  - *Transitory Records Procedure* (#1133-03)
  - *Legal Hold Procedure* (#1133-04)
  - *Individually Identifying Information Policy* (#1174)
- Alberta Health Services Forms:
  - Records Destruction Authorization (#08939)
- Non-Alberta Health Services Documents:
  - *Information and documentation – Electronic records conversion and migration process* [ISO 13008:2012(E)] (International Organization for Standardization)
  - *Electronic records as documentary evidence* [CAN/CGSB-72.34-2017] (Canadian General Standards Board)
  - *Information Management Advice 60 Part 5 Successfully manage Information Risks during System Migration* (Tasmanian Archive + Heritage Office [TAHO])

## VERSION HISTORY

Date	Action Taken
<a href="#">Click here to enter a date</a>	Optional: Choose an item
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APPENDIX A

Electronic Records Conversion and Migration Recordkeeping Decision Chart

