

Data and Electronic  
Records Management  
Best Practices

**Roles and Responsibilities**

April 14, 2006

Developed by the ACE Data and Electronic Records Management Domain  
under the auspices of the Texas Department of Information Resources

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# Introduction

This guide is a tool to help Texas state agencies and institutions of higher education manage their electronic records effectively. It identifies roles for data and electronic records management and the associated responsibilities. With this guide, agencies can determine whether they have assigned staff responsibilities appropriately for recordkeeping strategies, practices, and electronic records management systems and identify areas that need improvement. The *Electronic Records Standards and Procedures* referenced throughout this guide can be found in the administrative rules of the Texas State Library and Archives Commission, as found in the Texas Administrative Code (TAC).<sup>1</sup> All references to *Electronic Records Standards and Procedures* pertain to these rules.

## Scope and Audience

State records in all formats must be properly managed to support business needs and meet accountability obligations. Electronic state records and the data that support them are subject to the same legal requirements as records on paper or in any other format. Electronic records include those created in an electronic format (born digital) and those converted into an electronic format (e.g., imaged documents).

This guide will help agencies evaluate and implement their electronic recordkeeping capabilities in the context of their broader recordkeeping strategy.

Meeting the challenge of managing data and electronic records requires a coordinated approach. Developing a comprehensive recordkeeping program should involve input from various sections of the organization, including those in the following roles:

- Records Management Officer and other records and information management professionals
- Information Resources Manager
- Custodians
- Users (records creators)
- Owners (managers of business and e-business units)

This guide should also be used as part of an internal audit program.

Agencies should work toward meeting all the requirements in the guide. This will ensure that electronic recordkeeping is an integrated part of the overall records and information management strategy.

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<sup>1</sup> 13 TAC 1, §§ 6.91–6.97 (Texas State Library and Archives Commission). Retrieved 26-Sep-2005 from the *Secretary of State* at <[http://info.sos.state.tx.us/pls/pub/readtac\\$ext.viewtac](http://info.sos.state.tx.us/pls/pub/readtac$ext.viewtac)>.

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## Using the Guide

The guide describes an electronic recordkeeping framework and covers ten areas of electronic recordkeeping. A key principle sets out the intended goal in each area. Related roles are defined to support the key principles. A glossary of terms is included at the end of this document.

Agencies should assess whether each principle is met through a process of review, interviews, and evaluation.

### Assessment Process

<b>Review</b>	<ul style="list-style-type: none"><li>• Physical examination of the system, facilities, and/or business processes. In some cases, a qualified professional such as a database specialist, records manager, or IT security administrator should undertake the review. Reviews may be conducted by staff with specialist knowledge or by external professionals.</li><li>• Examination of records or other evidence that verify attributes relating to the system, facilities, and/or business processes (e.g. policy statements, procedural documentation).</li></ul>
<b>Interviews</b>	Discussions with personnel who have relevant skills or knowledge to make informed comments on the system, facilities, and/or business processes.
<b>Evaluation</b>	Agencies should evaluate electronic recordkeeping throughout the entire organization. However, the guide will be most useful if applied at the level of business units or individual systems.

Using the guide will require a range of skills and competencies:

- An understanding of the organization's recordkeeping requirements
- Familiarity with business information systems and the technological environment
- Knowledge of associated policies and procedures

If a key principle cannot be satisfied, agencies should consider the ongoing risks in failing to satisfy it. All identified risks should be actively managed as part of the agency's business continuity and risk management programs, and associated recordkeeping decisions should be authorized by senior management.

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# Electronic Recordkeeping Framework

An effective records management program is based on a comprehensive framework for data and electronic recordkeeping, which is integrated into the total recordkeeping and information management strategy. The agency should ensure that:

- Senior management acknowledges data and electronic records as corporate assets and commits to effectively managing them throughout their life cycle.
- The framework identifies all relevant legislative requirements through the records retention schedule and outlines arrangements to ensure the requirements are met.
- The policies, procedures, and guidelines developed as part of the framework cover all aspects of data and electronic recordkeeping described in the *Electronic Records Standards and Procedures*<sup>2</sup> and are incorporated into information services practices.
- Responsibility for data and electronic recordkeeping is assigned to staff with appropriate expertise, knowledge, and experience.
- Business information systems are designed and implemented with data and recordkeeping capability.
- Training and education programs for all aspects of data and electronic records management are an integral and ongoing component of the framework.
- The framework covers data and electronic records that are owned by the State of Texas, even if they are created or managed by external providers.

## 1. Creating Data and Electronic Records

### KEY PRINCIPLE

*Data and electronic records are created as evidence of business activity.*

### ROLES AND RESPONSIBILITIES

- The Owner and Records Management Officer ensure that legal and business requirements to create data and electronic records have been identified.
- The Information Resources Manager ensures that systems that manage electronic records have recordkeeping capability.
- The Information Resources Manager ensures that business information systems without recordkeeping capability are not used to capture or manage electronic records.

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<sup>2</sup> See footnote 1.

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- The Records Management Officer and the Information Resources Manager ensure that electronic records are captured into recordkeeping systems.

## 2. Creating Information about Data and Electronic Records

### KEY PRINCIPLE

*Metadata about data and electronic records is captured and maintained.*

### ROLES AND RESPONSIBILITIES

- The Records Management Officer and the Information Resources Manager develop policies and practices to ensure that standardized metadata is created and maintained to facilitate recordkeeping and disposition.
- The Owner, the Records Management Officer, and the Information Resources Manager ensure that creation and capture of metadata occurs as a normal part of business and recordkeeping operations.
- The Owner is responsible for defining metadata that needs to be captured.
- The Custodian ensures that the systems are capable of capturing metadata when data and records are created and during their management.
- The User is responsible for accurately entering metadata.
- The Owner and Users are responsible for adhering to metadata standards.
- The Owner, the Information Resources Manager, and the Custodian ensure that classification tools have been developed to assist with titling, indexing, and retrieving data and electronic records.

## 3. Determining How Long to Keep Data and Electronic Records

### KEY PRINCIPLE

*Data and electronic records are retained, and remain accessible, until no longer required.*

### ROLES AND RESPONSIBILITIES

- The Records Management Officer and the Owner determine how long to keep data and electronic records to meet legal, business, and historical needs, based on the agency's approved records retention schedule.
- The agency obtains data and records disposition authority through its approved records retention schedule, which identifies its business records in any format including electronic.

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- The Information Resources Manager and the Custodian ensure that the system is designed to allow the application of retention principles so that records that have met retention requirements can be identified and disposed of according to the retention schedule.

## 4. Storing Data and Electronic Records

### KEY PRINCIPLE

*Data and electronic records are stored in appropriate conditions to ensure their ongoing accessibility.*

### ROLES AND RESPONSIBILITIES

- The Information Resources Manager ensures that data and electronic records are stored on appropriate devices based on business needs, preservation requirements, and costs.
- The Custodian performs system backups on a regular basis.
- The Custodian performs regular integrity checks on electronic storage devices.
- The Information Resources Manager and the Custodian ensure that electronic storage media are monitored and periodically refreshed to prevent data loss through media degradation and obsolescence.
- The Information Resources Manager ensures that electronic storage media are stored in accordance with the standards for *Maintenance of Electronic Records Storage Media*.<sup>3</sup>

## 5. Securing Data and Electronic Records

### KEY PRINCIPLE

*Effective security and authentication controls ensure that data and electronic records are safe from intentional or unintentional damage and unauthorized tampering or access.*

### ROLES AND RESPONSIBILITIES

- Security of data and electronic records is maintained in accordance with the Department of Information Resources' (DIR's) *Information Security Standards*.<sup>4</sup>
- The Information Resources Manager ensures that procedures and practices control the appropriate assignment of access permissions to Users.

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<sup>3</sup> 13 TAC 1, § 6.96 (Texas State Library and Archives Commission). Retrieved 27-Sep-2005 from the *Secretary of State* at <[http://info.sos.state.tx.us/pls/pub/readtac\\$ext.viewtac](http://info.sos.state.tx.us/pls/pub/readtac$ext.viewtac)>.

<sup>4</sup> 1 TAC 10, § 202 (Department of Information Resources). Retrieved 26-Sep-2005 from the *Secretary of State* at <[http://info.sos.state.tx.us/pls/pub/readtac\\$ext.viewtac](http://info.sos.state.tx.us/pls/pub/readtac$ext.viewtac)>.

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- The Information Resources Manager ensures that procedures are in place to identify and respond to incidents or attempted security breaches of systems that create or store data and electronic records.
  - The Information Resources Manager ensures that systems and practices prevent unauthorized alteration of data and electronic records, and ensure their authenticity.
  - The Information Resources Manager ensures that procedures for security and authentication mechanisms do not inadvertently make data and electronic records of enduring value inaccessible in the long term.

## 6. Business Continuity Planning For Data and Electronic Records

### KEY PRINCIPLE

*The agency has an adequate business continuity plan for data and electronic records to prevent, prepare for, and recover from a disaster.*

### ROLES AND RESPONSIBILITIES

- The Information Resources Manager ensures that procedures and practices are in place to minimize the risk of data and electronic records being lost or damaged as a result of disaster.
- The Records Management Officer and the Owner identify vital data and electronic records and ensure that they receive high priority in business continuity plans.
- The Records Management Officer and the Information Resources Manager ensure that business continuity plans include appropriate recovery and restoration procedures for data and electronic records.

## 7. Preserving Data and Electronic Records for the Long Term

### KEY PRINCIPLE

*The agency has a strategy to preserve data and electronic records and ensure they are accessible for as long as required.*

### ROLES AND RESPONSIBILITIES

- The Owner, the Records Management Officer, and the Information Resources Manager ensure that an approach to preserving data and electronic records has been selected based on business needs, how well the approach will serve them, and the agency's capacity to support the approach (financially and technically) in the long term.
- The Records Management Officer and the Information Resources Manager ensure that preservation strategies are implemented and proactively promulgated to relevant staff.
- The Information Resources Manager and the Custodian ensure that data and electronic records and associated metadata are usable and accessible with current technology.

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## 8. Providing Access to Electronic Records

### KEY PRINCIPLE

*The agency can provide access to its data and electronic records in accordance with the Texas Public Information Act.<sup>5</sup>*

### ROLES AND RESPONSIBILITIES

- The Information Resources Manager ensures that data and electronic records, managed according to the approved retention schedule, and their metadata, are accessible and usable as appropriate by the public.
- The Information Resources Manager ensures that the infrastructure is in place to meet public and official demands for access to data and electronic records.
- The Information Resources Manager ensures that mechanisms are in place to supervise access and to protect confidential information from unintended or unauthorized release.

## 9. Data and Electronic Records Disposition

### KEY PRINCIPLE

Electronic records and the data that supports them are disposed of lawfully and according to the *Final Disposition of Electronic State Records*.<sup>6</sup>

### ROLES AND RESPONSIBILITIES

- The Owner and the Records Management Officer ensure that disposition of data and electronic records is in accordance with an agency's approved records retention schedule.
- The Records Management Officer and the Information Resources Manager ensure that electronic records of enduring value and the data that supports them are maintained within the agency after they are no longer required for business purposes.<sup>7</sup>
- The Information Resources Manager ensures that preservation strategies are capable of retaining the integrity and functionality of the data and electronic records retained permanently within the agency,

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<sup>5</sup> TEX. GOV'T CODE, Ch. 552 (Public Information). Retrieved 27-Sep-2005 from *Texas Legislature Online* at <<http://www.capitol.state.tx.us/statutes/gv.toc.htm>>.

<sup>6</sup> 13 TAC 1, § 6.95 (Texas State Library and Archives Commission). Retrieved 27-Sep-2005 from the *Secretary of State* at <[http://info.sos.state.tx.us/pls/pub/readtac\\$ext.viewtac](http://info.sos.state.tx.us/pls/pub/readtac$ext.viewtac)>.

<sup>7</sup> See TEX. GOV'T CODE, § 441.186(e) (Libraries and Archives). Retrieved 27-Sep-2005 from *Texas Legislature Online* at <<http://www.capitol.state.tx.us/statutes/gv.toc.htm>>.

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- The Owner, the Information Resources Manager, and the Custodian ensure that when data and electronic records are authorized for destruction, appropriate methods of destruction are used and all extant copies are destroyed in such a way that they cannot be reconstructed.<sup>8</sup>
  - The Information Resources Manager and the Custodian ensure that when data and electronic records are transferred between agencies, the data and records and associated metadata are transferred in data formats that are accessible and functional for the receiving agency, and that adequate system documentation is included.

## 10. Managing Some Common Types of Electronic Records

### KEY PRINCIPLE

*Particular types of electronic records (such as electronic documents and messages, Web-based records, records subject to online security processes) are managed in accordance with their specialized recordkeeping requirements.*

### ROLES AND RESPONSIBILITIES

- The Owner, the Records Management Officer, the Information Resources Manager, the Custodian, and Users ensure that electronic documents and messages are kept in accordance with the *Electronic Records Standards and Procedures*.<sup>9</sup>
- The Records Management Officer, the Information Resources Manager, and the Custodian ensure that web-based records are made and kept in accordance with the *Electronic Records Standards and Procedures* and the *State Publications Depository Program*.<sup>10</sup>
- The Information Resources Manager and the Custodian ensure that data and records subject to online security processes, such as encryption, are kept in accordance with *Guidelines for the Management of Electronic Transactions and Signed Records*.<sup>11</sup>
- The Information Resources Manager ensures that records in business information systems are kept in accordance with the *Electronic Records Standards and Procedures*.
- The Records Management Officer and the Information Resources Manager ensure that personnel with responsibility for data and electronic recordkeeping monitor emerging technologies to ensure that any resulting data and electronic records are managed appropriately

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<sup>8</sup> See *Sale or Transfer of Computers and Software*, Texas Department of Information Resources, 29-Nov-2005. Retrieved 6-Feb-2006 from < <http://www.dir.state.tx.us/pubs/saleortransfer/index.htm>>.

<sup>9</sup> See footnote 1.

<sup>10</sup> 13 TAC 1, § 3.3, § 3.9 (Texas State Library and Archives Commission). Retrieved 27-Sep-2005 from the *Secretary of State* at <[http://info.sos.state.tx.us/pls/pub/readtac\\$ext.viewtac](http://info.sos.state.tx.us/pls/pub/readtac$ext.viewtac)>.

<sup>11</sup> 1 TAC 10, Ch. 203 (Department of Information Resources). Retrieved 26-Sep-2005 from the *Secretary of State* at <[http://info.sos.state.tx.us/pls/pub/readtac\\$ext.viewtac](http://info.sos.state.tx.us/pls/pub/readtac$ext.viewtac)>.

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## Glossary

**custodian** – the authority, individual, or organization responsible for implementing business requirements as defined by the Owner for the maintenance, storage, protection, and destruction of data and records.

**data** – a representation of facts in an organized manner in order that it may be stored, communicated, interpreted, or processed by automated means.

**DERM** – data and electronic records management.

**disposition** – actions taken regarding data or records after they are no longer required to conduct agency business.

**electronic state record** – as defined by Texas Administrative Code,<sup>12</sup> information that meets the definition of a state record in the Texas Government Code,<sup>13</sup> and is maintained in electronic format for computer processing, including the product of computer processing of the information.

**information** – an aggregation of data that has been assigned meaning.

**information resources** – the procedures, equipment, facilities, software, and data that are designed, built, operated, and maintained to collect, record, process, store, retrieve, display, and transmit information.

**Information Resources Manager** – the person designated to perform the duties outlined in Texas Government Code<sup>14</sup> and Texas Administrative Code.<sup>15</sup>

**information services practices** – the policies, guidelines, methodologies, quality assurance measures, training, and support provided by the agency information resources staff necessary to support an information technology project.

**life cycle** – the management concept that data and records pass through three stages: creation, maintenance and use, and disposition.

**metadata** – data that describes other data. (1) Metadata is used to document the characteristics of and relationships between information contained within databases (field names, length of field, type of data, etc.). (2) It is used to describe data, such as the content of an HTML meta tag or a title field in a media file. (3) It is used in recordkeeping to identify data that must be captured

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<sup>12</sup> 13 TAC 1, § 6.91 (Texas State Library and Archives Commission). Retrieved 27-Sep-2005 from the Secretary of State at <[http://info.sos.state.tx.us/pls/pub/readtac\\$ext.viewtac](http://info.sos.state.tx.us/pls/pub/readtac$ext.viewtac)>.

<sup>13</sup> TEX. GOV'T CODE, § 441.180 (Libraries and Archives). Retrieved 27-Sep-2005 from *Texas Legislature Online* at <<http://www.capitol.state.tx.us/statutes/gv.toc.htm>>.

<sup>14</sup> TEX. GOV'T CODE, § 2054.071 (Information Resources Management Act). Retrieved 27-Sep-2005 from *Texas Legislature Online* at <<http://www.capitol.state.tx.us/statutes/gv.toc.htm>>.

<sup>15</sup> 1 TAC 10, Ch. 211 (Department of Information Resources). Retrieved 27-Sep-2005 from the *Secretary of State* at <[http://info.sos.state.tx.us/pls/pub/readtac\\$ext.viewtac](http://info.sos.state.tx.us/pls/pub/readtac$ext.viewtac)>.

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along with records to make them understandable, manageable, usable, accessible, and disposable.

**Owner** – the authority, individual, or organization who has original responsibility for defining requirements for data and electronic records by statute, executive order, directive, or business need.

**Records Management Officer** – the person designated to perform the duties outlined in Texas Government Code.<sup>16</sup>

**state record** – as defined by the Texas Government Code,<sup>17</sup> any written, photographic, machine-readable, or other recorded information created or received by or on behalf of a state agency or an elected state official that documents activities in the conduct of state business or use of public resources. The term does not include library or museum material made or acquired and maintained solely for reference or exhibition purposes; an extra copy of recorded information maintained only for reference; or a stock of publications or blank forms.

**User** – any person who has been authorized by the owner to read, enter, or update data and records.

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<sup>16</sup> TEX. GOV'T CODE, § 441.184 (Libraries and Archives). Retrieved 27-Sep-2005 from *Texas Legislature Online* at <<http://www.capitol.state.tx.us/statutes/gv.toc.htm>>.

<sup>17</sup> TEX. GOV'T CODE, § 441.180(11) (Libraries and Archives). Retrieved 27-Sep-2005 from *Texas Legislature Online* at <<http://www.capitol.state.tx.us/statutes/gv.toc.htm>>.

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## Acknowledgments

This guide is based on the National Archives of Australia's *Digital Recordkeeping Self-Assessment Checklist* (Exposure draft, May 2004). It is used by permission of the National Archives of Australia. Retrieved 26-Sep-2005 from <[www.naa.gov.au/recordkeeping/er/checklist.html](http://www.naa.gov.au/recordkeeping/er/checklist.html)>.

The Department of Information Resources gratefully acknowledges the dedication of the following people who contributed their time and expertise to the creation of this document:

Tammy Cannon, *Texas Department of Criminal Justice*

Karen Cornwell, *Texas Education Agency*

Sandy Crow, *Department of State Health Services*

Lee Dustman, *Office of the Attorney General*

Nancy Edwards, *Department of State Health Services*

Nancy Enneking, *Texas State Library and Archives Commission*

Carolyn Foster, *Texas State Library and Archives Commission*

Stan Gunn, *Texas Youth Commission*

Cynthia Hestand, *Texas Department of Assistive and Rehabilitative Services*

Mary Hilliard, *The University of Texas System*

Victoria Mason, *Office of the Attorney General*

Teresa Morales, *Comptroller of Public Accounts*

Tim Nolan, *Texas State Library and Archives Commission*

Martha Richardson, *Department of Information Resources*

Heidi Van Setten, *Texas Parks and Wildlife Department*

Martin Zelinsky, *Department of Information Resources*