



BSI Standards Publication

## **Information and documentation — Records management in enterprise architecture**

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## National foreword

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## **Information and documentation — Records management in enterprise architecture**

*Information et documentation — Gestion des documents d'activité  
dans les architectures (des systèmes d'information) d'entreprise*





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# Contents

Page

<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Records management viewpoint purpose and content overview</b> .....	<b>7</b>
4.1 Records management viewpoint purpose.....	7
4.2 Records management viewpoint and the ADM.....	8
<b>5 View: Records management business context and stakeholders</b> .....	<b>8</b>
5.1 Records management in the business context.....	8
5.2 Records management stakeholders.....	9
<b>6 View: Records management information</b> .....	<b>11</b>
<b>7 View: Records management motivation — Goals</b> .....	<b>12</b>
<b>8 View: Records management motivation — Capability</b> .....	<b>13</b>
<b>9 View: Records business management motivation — Architecture principles</b> .....	<b>14</b>
9.1 General.....	14
9.2 Records management architecture principles.....	17
<b>10 View: Records management reference application scenarios</b> .....	<b>21</b>
<b>11 View: Records management strategy and implementation</b> .....	<b>23</b>
<b>12 Records management and the Architecture Development Method</b> .....	<b>24</b>
12.1 General.....	24
12.2 Areas of concern for records management within enterprise architecture.....	25
12.3 Records management objectives by method phase.....	26
<b>Annex A (informative) Relationships to ISO records management standards</b> .....	<b>28</b>
<b>Annex B (informative) Alignment of records management principles to ISO records management standard</b> .....	<b>29</b>
<b>Annex C (informative) Alignment with the TOGAF ADM Phase</b> .....	<b>33</b>
<b>Annex D (informative) Other relevant ISO standards and international references</b> .....	<b>44</b>
<b>Annex E (informative) Summary of ArchiMate 3.0 concepts and notation</b> .....	<b>46</b>
<b>Annex F (informative) Archi — ArchiMate modelling tool</b> .....	<b>47</b>
<b>Bibliography</b> .....	<b>48</b>

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 46, *Information and documentation*, Subcommittee SC 11, *Archives/records management*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

# Introduction

## General

A record is information created, received and maintained as evidence and as an asset by an organization or person, in pursuit of legal obligations or in the transaction of business. Records management is the field of management responsible for the efficient and systematic control of records, and thus the primary source for the definition of the main principles and requirements for the records management capability.

Enterprise architects work with stakeholders, both leaders and subject matter experts, to develop and maintain a holistic view of the organization's strategy, processes, information assets, and information technology. The role of the enterprise architect is to take this knowledge and ensure that the business and IT are in alignment. The enterprise architect links the business mission, strategy and processes of an organization to its information and technology strategy. Enterprise architects document this using multiple architectural models or views that show how the current and future needs of an organization will be met in an efficient, sustainable, agile, and adaptable manner.

The concept of **records** as **information assets** is consistent with the definition in ISO 15489-1:2016 of "information created, received and maintained as evidence and as an asset by an organization or person, in pursuit of legal obligations or in the transaction of business". Consistent good practice in the management of the information assets of a business is most important, regardless of the broader or narrower interpretation of the terms "record" and "records management", and concepts of "business record", "evidence", "information asset", "legal obligations", and "transaction" in an organization or business.

The purpose of this document is to provide a common reference for records managers (or information managers in general) and enterprise architects about requirements for records processes and systems. The goal is to establish the records manager as a key stakeholder in enterprise architecture, which supports embedding records management:

- into the strategic goals, enabling it as an organizational capability for consideration for governance, risk and compliance;
- into the enterprise architecture requirements, to influence systems analysis, design, planning, and change management.

Enterprise architects are highly influential in the creation of organization-wide business requirements and in solution architectures. Enterprise architects create and maintain enterprise architecture representations, usually comprised of multiple models or views that show how the current and future needs of an organization will be met in an efficient, sustainable, agile, and adaptable manner. Records requirements, principles and models can be stated in ways that can be readily incorporated into these enterprise architecture representations to embed records processes and systems into normal business practice and into solutions to be designed. Incorporating recordkeeping requirements into system analysis and design will help enterprise architects link systems to recordkeeping control tools, and thus resolve issues such as the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records. In that sense, this document has the following objectives:

- a) Explaining the core concepts and records management principles to enterprise architects;
- b) Explaining the core concerns of records management as an enterprise architecture viewpoint;
- c) Explaining the alignment of the records management viewpoint and enterprise architecture methods.

The records management viewpoint expressed here makes use of the concepts of "concerns" and "system of concerns" defined in ISO/IEC/IEEE 42010, and of the concepts of "stakeholders", "viewpoint", "view" and "model" as also defined coherently in that standard and in the main enterprise architecture references of The Open Group Architecture Framework (TOGAF) and ArchiMate. With reference to ArchiMate, the main scope of this viewpoint is the motivational aspect and the layers strategy and business, with

minor considerations for the layers of application and implementation. TOGAF is used to inform how this records management viewpoint relates to the Architecture Development Method (ADM).

NOTE For an explanation of ArchiMate diagram conventions, see [Annex A](#).

## Motivation

Since enterprise architecture often drives decisions about investment in information systems, it is important that records management requirements can be aligned with enterprise architecture. This ensures that enterprise architects can understand the business value realized through managed records.

System designers can then consider building in records management capabilities by design. This requires the expression of records management concerns in a way that is useful for representation in architecture descriptions.

Motivations for the development of this document include the need to improve the following situations:

- Lack of understanding in many organizations that the information created and received as part of their business activities are in fact records and therefore should be managed not only as records but also as enterprise assets,
- Information is of growing importance as an organisational asset on its own right. New sensor technology, big data phenomena, open data and linked data practices, etc., require efficient control over derived information and its uses (e.g. machine learning applications, decision aid processes, etc.), and therefore demand adequate Records Management,
- Lack of managing records not only as records but also as enterprise assets results in records management often being de-scoped or “deferred” during systems analysis and design, shifting architectural debt to the end of life of system’s decommissioning (end of life of a system). This deferment can result in uncertainty and lack of fundamental knowledge in the moment of the decommissioning, implying high risks for the business and costly corrective efforts,
- Lack of embedding records management capability in the design of systems that create and receive records, resulting in: unmanageable records; needed authoritative information not available to the organization; increased risk of exposure of the organization to risks (such as compliance risks) and a loss of efficiency (such as for discovery tasks),
- Cost of re-engineering an enterprise solution designs due to compliance risks.

Understanding records management concerns within an enterprise architecture context can minimize some of the following typical challenges:

- Reliance on manual interventions in the management of records, described:
  - By Enterprise Architects as “create, describe, store, maintain and dispose of records”,
  - By Records Managers as “creation, capture and management of records”.
- Records not created within, or persistently linked to, the business context (see [Figure 1](#)),
- Exposure to risks and compliance issues due to:
  - Systems not designed to preserve the integrity of records, for example, not preventing unauthorized changes to content and metadata, or with inadequate activity monitoring,
  - Systems not able to destroy records when those records are due for destruction,
  - Systems not designed to prevent the destruction of records that are scheduled for retention,
  - Systems not recording the disposition of records,



- Systems with limitations for decommissioning properly, because it isn't possible to apply disposition rules to poorly described content or because the system lacks disposition capabilities,
  - Migrations that damage the integrity of records (content, context, rendering), are compromised through poorly designed migration processes,
  - Systems unable to appropriately discover or view or retrieve records,
  - Systems unable to prevent inappropriate disclosure of records, nor to publish appropriate as open data due to inadequate metadata,
  - Inability to transfer control of archival records to archival authorities.
- Overhead cost of maintaining unmanaged records indefinitely,
  - Loss of reputation and legal risks associated with lack of evidence or lack of integrity of evidence.

### Structure of this document

This document is organized into four main groupings:

- [Clauses 1](#) to [3](#) provide the context overview, including Introduction, Scope, Normative references, and Terms and definitions.
- [Clauses 4](#) to [11](#) set out the Records Management Viewpoint in the scenarios of “*Business*”, “*Motivation*”, “*Information*”, “*Strategy*”, “*Implementation*” and “*Reference Application*”.
- [Clause 12](#) — *Records Management and the Architecture Development Method* — provides guidelines for the consideration of Records Management concerns during an Enterprise Architecture process, considering the ADM, as proposed by TOGAF 9[1].
- Annexes supporting [Clauses 4](#) to [12](#).



# Information and documentation — Records management in enterprise architecture

## 1 Scope

The document creates a common language that embeds records management concerns and requirements into enterprise architecture with the twin goals of building consensus

- among records managers, enterprise architects and solution architects, and
- across the domains of records management, enterprise architecture and solution architecture.

**NOTE** This common understanding of Records Management enables Enterprise Architects to understand the motivations, concerns and goals of Records Managers, recognize them as influential key business stakeholders during organizational transformation, and use this understanding to influence systems planning and design. As a result, Records Management becomes an organizational capability at governance, strategic and operational levels.

This document provides a records management viewpoint, with architecture principles and corresponding architectural views of records. It explains records management for enterprise architects and other related professionals, so that they can achieve the competency needed to support collaborative initiatives.

This document provides support to enterprise architects in areas including:

- understanding and identifying records management principles, goals and requirements significant for the architectural representation,
- facilitating consultations with records managers during the project lifecycle,
- identifying opportunities to reuse existing records management analyses and tools.

This document provides scenarios and models for solution architects and those who have responsibility for infrastructure overview.

This document also provides a common language to records managers for collaboration with enterprise architects to position records management requirements in the architecture development process.

## 2 Normative references

There are no normative references in this document.

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>