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Information and documentation — Trusted third party repository for digital records

Information et documentation — Référentiel tiers de confiance pour les documents d'activité électroniques

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Foreword

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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).

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).

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

For an explanation on 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 the following URL: 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*.

Introduction

As digital records are the inevitable by-products of various business activities in digital systems, there is an increasing need to secure the authenticity and legal admissibility of digital records during their period of retention. It is internationally agreed that "digital records shall not be denied validity or enforceability of legal recognition by reason of their format alone"[1)]. Despite this, it is very difficult for an organization to assert that its digital records are authentic and able to act as effective evidence of business action over a long period. In many cases, legal admissibility of digital records managed by organizations' records systems is not ensured. As a result, there is a growing need for services safeguarding these characteristics for digital records by neutral third parties.

In order to protect digital records from business disputes during the period they are required for sustaining legal obligation and ongoing retention, it is essential to ensure that the authenticity, reliability and integrity of digital records endures.

Digital signatures are a well-known means to ascertain if digital records have been tampered with. However, as a digital signature only safeguards integrity within its validity time (generally one to two years or less), most digitally signed records do not ensure their integrity for longer than this validity time. It may thus be very difficult for an individual record system to prove the integrity of their digital records for the period of retention obligation, where this is longer than the validity period of the digital signature.

A possible solution is provided by a Trusted Third Party Repository (TTPR). A TTPR is defined as a third party's qualified retention service that ensure that digital records, entrusted to it by a client, remain and are asserted to be reliable and authentic, with the aim of providing reliable access to managed digital records to its clients for the period of obligation for retention. A TTPR for digital records provides trustworthy services for clients, which should be examined by interested parties (i.e. inspector, auditor, evaluator). These TTPR services are helpful to identify the evidence admissibility of clients' digital records as a source of evidence.

Clause 4 provides an overview of a TTPR including rationale for the criteria and the mechanism of trustworthiness and characteristics and components of TTPR.

Clause 5 specifies the services to be provided by a TTPR for the clients' digital records during the retention period. Clause 5 specifies the technological requirements of hardware and software systems and Clause 6 provides the operational processes requirements.

1) Article 8, Chapter 3, UNCITRAL 2007, United Nations Convention on the Use of Electronic Communication in International Contracts.

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1 Scope

This document specifies requirements for a trusted third party repository (TTPR) to support the authorized custody service in order to safeguard provable integrity and authenticity of clients' digital records and serve as a source of reliable evidence.

This document is applicable to retention or repository services for digital records as a source of evidence during the retention periods of legal obligation in both the private and the public sectors.

This document has the limitation that the authorized custody of the stored records is between only the TTPR and the client.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 30300, *Information and documentation — Management systems for records — Fundamentals and vocabulary*

ISO 30301, *Information and documentation — Management system for records — Requirements*

ISO 30302, *Information and documentation — Management systems for records — Guidelines for implementation*

UNCITRAL 2007, *United Nations Convention on the Use of Electronic Communications in International Contracts*

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 http://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
authenticity certificate
document issued to authenticate the digital record in the TTPR

3.2
authenticated copy
digital copy of a *digital record* (3.5) for which authenticity has been verified before

3.3
client
individual or organization that has an agreement with the *TTPR* (3.15)