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Information technology — Common Biometric Exchange Formats Framework —

Part 2: Biometric registration authority

Technologies de l'information — Cadre de formats d'échange biométriques communs —

Partie 2: Autorité d'enregistrement biométrique

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

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 document 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 or www.iec.ch/members_experts/refdocs).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC 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) or the IEC list of patent declarations received (see https://patents.iec.ch).

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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. In the IEC, see www.iec.ch/understanding-standards.

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 37, *Biometrics*.

This second edition cancels and replaces the first edition (ISO/IEC 19785-2:2006), which has been technically revised. It also incorporates the Amendment ISO/IEC 19785-2:2006/Amd1:2010 and the Technical Corrigendum ISO/IEC 19785-2:2006/Cor:2013.

The main changes are as follows:

— Biometric Registration Authority procedural requirements and recommendations were removed from the standard and published on the ISO/IEC JTC 1/SC 37 website to comply with JTC 1 Supplement, JF.3.3.

— The registration identifier scheme was revised to correct issues with a valid representation of the ASN.1 object identifier component.

— Support was added for additional biometric object types, including presentation attack detection (PAD).

— Other minor technical and editorial changes were made to correct technical requirements and to improve readability and organization.

A list of all parts in the ISO/IEC 19785 series can be found on the ISO and IEC websites.

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 and www.iec.ch/national-committees.

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Introduction

Biometric-based authentication systems and applications are expected to support multiple biometric devices, multiple biometric data formats and multiple algorithms for feature extraction, comparison, quality determination, presentation attack detection (PAD) and compression, possibly each from a different vendor. The Common Biometric Exchange Formats Framework (CBEFF) promotes interoperability of biometric-based application program and systems developed by different vendors by facilitating biometric data interchange. This document supports such exchanges by providing unambiguous identification of biometric organizations, formats and products, with separate registration of identifiers for components of products that are biometric products, including specialized products like capture devices, feature extraction algorithms, comparison algorithms, quality algorithms, PAD mechanisms or compression algorithms.

The Biometric Registration Authority (BRA) is the entity that facilitates globally unambiguous identification of biometric objects and biometric organizations by maintaining and publishing a registry of unique ASN.1 object identifiers. This document describes the universal identification scheme that allows assignment of unique and unambiguous identifiers, and avoids changes in identifiers over time. A general description of the BRA responsibilities and registration services is also included.

The publication of the registers promotes compatibility in interchange of biometric data and improves interoperability of biometric systems. Registration provides an identifier, but registration should not be regarded as a standardization procedure. Nevertheless, as a matter apart from registration, the registered object may, but need not, be the subject of an international, national or other standard.

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Information technology — Common Biometric Exchange Formats Framework —

Part 2: Biometric registration authority

1 Scope

This document describes the identification scheme used by the Biometric Registration Authority (BRA) in preparing, maintaining and publishing registers of identifiers for biometric organizations and biometric objects, and provides a description of BRA responsibilities and services. Procedural requirements and recommendations are not within the scope of this document and are maintained separately on the ISO/IEC JTC 1/SC 37 website[1)].

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/IEC 2382-37, *Information technology — Vocabulary — Part 37: Biometrics*

ISO/IEC 19785-1, *Information technology — Common Biometric Exchange Formats Framework — Part 1: Data element specification*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 2382-37 and ISO/IEC 19785-1 and the following apply.

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

— ISO Online browsing platform: available at https://www.iso.org/obp

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

3.1
applicant
organization requesting registration as a CBEFF biometric organization, or a registered CBEFF biometric organization requesting registration of a biometric object

3.2
open standard
standard that is subject to vetting procedures that ensure that it is technically correct and accurate and has wide-spread approval

3.3
register
record of assigned identifiers for CBEFF biometric organizations and biometric objects

1) ISO/IEC JTC 1/SC 37 website: https://committee.iso.org/home/jtc1sc37. BRA procedural information: https://committee.iso.org/files/live/sites/jtc1sc37/files/ABOUT/Procedural_Information_BRA.pdf.

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