Technical Specification

ISO/IEC TS 29196

Information technology — Guidance for biometric enrolment

Technologies de l'information — Directives pour l'inscription biométrique

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Contents

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 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).

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

This first edition of ISO/IEC 29196 cancels and replaces ISO/IEC TR 29196:2018, which has been technically revised.

The main changes are as follows:

— recommendations added throughout the document;

— Clause 3, some terms and references modified;

— information about enrolment updated to state of art;

— Annex A removed.

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.

Introduction

One of the most important contributions to a successful biometric recognition system is a consistent biometric enrolment service ("biometric capture process") that stores biometric data captured from individuals for biometric comparison purposes. Biometric data captured for subsequent verifications or identifications are compared with the biometric data collected at enrolment time. If the quality of the biometric samples captured for enrolment is not consistently maintained, the performance of the biometric recognition system is likely to be unreliable. For those who are enrolled in a verification system, a poor quality enrolment is an inconvenience if they are not recognized.

NOTE   Quality has a specific meaning when applied to biometric systems, see ISO/IEC 29794-1: a high quality capture is one that results in biometric data that provides good comparison scores when compared with other high quality images from the same biometric feature.

Principles based on stakeholder requirements can guide the development of system policy to ensure that the quality of biometrics samples captured for enrolment are fit for purpose. Where biometric capture processing is outsourced to a third party, a shared understanding of quality is an extremely important basis for ensuring the relying party and the enrolment authority are aligned on what constitutes a biometric sample of acceptable quality.

Although the recommendations in this document are directed primarily to the parties responsible for the biometric capture process itself and for management of the enrolment service (noting that these two entities can be one and the same), they are also of value to the designers and developers of enrolment systems.

Information technology — Guidance for biometric enrolment

1   Scope

This document gives guidance relating to successful, secure and usable implementation of biometric enrolment processes, while indicating risk factors that organizations which use biometric technologies can address during procurement, design, deployment and operation. Much of this document is generic to many types of applications, e.g. from national scale commercial and government applications, to closed systems for in-house operations, and to consumer applications. However, the intended application and its purpose often have influence on the necessary enrolment data quality and are taken into account when specifying an enrolment system and process.

This document specifies the differences in operation relating to specific types of application, e.g. where self-enrolment is more appropriate than attended enrolment. This document focuses on mandatory, attended enrolment at fixed locations. It ultimately consolidates information relating to better practices for the implementation of biometric enrolment capability in various business contexts including considerations of process, function (system), and technology, as well as legal/privacy and policy aspects.

This document provides guidance on collection and storage of biometric enrolment data and the impact on dependent processes of verification and identification. This document does not include material specific to forensic and law enforcement applications.

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*

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