TECHNICAL SPECIFICATION
SPÉCIFICATION TECHNIQUE
TECHNISCHE SPEZIFIKATION

CEN/TS 17631

June 2021

ICS 35.240.15

English Version

Personal identification - Biometric group access control

Persönliche Identifikation - Biometrische Zugangskontrolle für Gruppen

This Technical Specification (CEN/TS) was approved by CEN on 9 May 2021 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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European foreword

This document (CEN/TS 17631:2021) has been prepared by Technical Committee CEN/TC 224 "Personal identification and related personal devices with secure element, systems, operations and privacy in a multi sectorial environment", the secretariat of which is held by AFNOR.

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Introduction

Purpose and Justification:

— Non-discriminative applications: As many subjects as possible are expected to be able to access a biometric system. A large number of the overall public is smaller groups, such as families or accompanied persons, and they will not be discriminated against.

— High throughput: One main objective of the use of biometric access control systems for biometric subjects as well as for operators is the speed of the process and the prevention of queuing times. This would include the applicability of processes to as many persons as possible.

— Increasing automation: Automation can limit time spent on recurrent processes and can decrease the need for (e.g. human and financial) resources. As automation is increasing also in daily life applications, e.g. access to leisure facilities, applications in smart cities etc., the approach should be inclusive and cover most user groups. Such an inclusion of smaller groups into automated access control processes would be the expectation of the public, as such groups are a major fraction of all parties in real life.

— Focus sharpening: Human interaction and staff allocation could in such an automated system focus on more difficult and more complex cases. That way, as easier cases are processed automatically, the more complex cases themselves can be treated faster, and they do not slow down the overall process.

— Prevention of child trafficking: When designing biometric access systems for small groups, measures should be considered to prevent child trafficking e.g. by providing a group internal linkage. This could massively improve the security level as of today.

Benefit for Stakeholders include:

— usage harmonization,

— extension of the target user group compared to current biometric access control technology,

— interoperability in workflow and data formats,

— establishment of usable biometric group access in several application environments,

— facilitation of throughput of biometric processes used for access control, and

— integration of biometric technology into security technology.

1 Scope

This document provides guidance on providing access:

— to areas with physical access control, e.g. entertainment facilities, train stations, shops, libraries, banks, or border control,

— for small groups of persons, e.g. families with small children or seniors, or other accompanied persons in need of support,

— by means of biometric authentication technologies, e.g. facial, fingerprint, or vein recognition,

— in the European regulatory context.

The document addresses the following aspects, which are specific for biometric and group access:

— accessibility and usability,

— user guidance including group guidance and interaction control,

— privacy including data set content,

— presentation attack detection,

— applicable biometric technologies,

— storage of reference data,

— biometric process integration,

— specific needs considering biometrics for groups,

— biometric performance and error rates, and

— group internal linkage.

The following aspects which reflect on generic access control issues are out of scope:

— IT security,

— application specific physical security,

— policy definition,

— processes not related to biometric authentication, and

— specific performance requirements of identification (1:N) and verification (1:1) 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.

EN 17054:2019, *Biometrics multilingual vocabulary based upon the English version of ISO/IEC 2382-37:2012*