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S.R. CEN/TS 16634:2014

Personal identification - Recommendations for using biometrics in European Automated Border Control

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TECHNICAL SPECIFICATION

SPÉCIFICATION TECHNIQUE

TECHNISCHE SPEZIFIKATION

CEN/TS 16634

April 2014

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English Version

Personal identification - Recommendations for using biometrics in European Automated Border Control

Identification personnelle - Recommandations pour l'usage de la biométrie lors des contrôles automatisés aux frontières de l'Europe

Persönliche Identifikation - Empfehlungen für den Einsatz von Biometrie bei der automatisierten Grenzübergangskontrolle in Europa

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Foreword

This document (CEN/TS 16634:2014) has been prepared by Technical Committee CEN/TC 224 “Personal identification, electronic signature and cards and their related systems and operations”, the secretariat of which is held by AFNOR.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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Introduction

European countries are increasingly deploying technological solutions to support border guard officers in fulfilling their duties. Such solutions can consist of inspection systems that directly assist the officers in screening travellers or of electronic kiosk and gates offering various degrees of automation.

Electronic Machine Readable Travel Documents (eMRTD) as defined in ICAO Document 9303 [27] can contribute to a high degree of border automation. Under Council Regulation (EC) No 2252/2004 [21], EU Member States nowadays issue electronic passports containing biometric data (facial image, two fingerprint images). Ireland and UK are not bound by the Regulation and issue ePassports storing only the facial image of the holder. Currently a number of European countries have deployed ABC systems which automate border checks for EU citizens in possession of an electronic passport. The upcoming “Smart Borders Package” will foresee the introduction of an EU Registered Traveller Programme [23]. This would allow certain groups of frequent travellers (i.e. business travellers, family members, etc.) from third countries to enter the EU, subject to appropriate pre-screening, using simplified border checks at ABC systems. The European Commission proposes that this RTP makes maximum use of existing systems and tools, such as the Biometric Matching System which underpins the Visa Information System (VIS) and the fingerprint scanners which are used for this system.

There is a need to harmonize processes containing biometric elements, biometric technology tests and reporting frameworks (in accordance with Bibliographical Entries [11], [12], [13]) and to link biometric characteristics with supervision requirements.

This Technical Specification focuses on automated systems that can be supervised by an operator, but such supervision is not a requirement for the biometric comparison subsystem. The level of supervision is an operational decision that can be changed according to the needs of the operating authorities.

ABC systems can be classified into four profiles based on their document requirements:

- eMRTD based,
- MRTD based,
- Token other than MRTD - physical and logical, transferable,
- Tokenless.

Regarding the location of the eligibility check, ABC systems can be implemented as:

- One-Step Process,
- Integrated Two-Step Process,
- Segregated Two-Step Process.

This document has been drafted with the contribution of the European Agency for the Management of Operational Cooperation at the External Borders of the Member States of the European Union (Frontex) and was adopted by CEN after public enquiry and formal vote according to the CEN Rules of Procedure.

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1 Scope

This Technical Specification primarily focuses on biometric aspects of Automated Border Control (ABC) systems. Drawing on the first European and international ABC deployments, it aims to disseminate best practice experiences with a view to ensure consistent security levels in European ABC deployments. Furthermore, the best practice recommendations given here shall help make border control authorities' processes more efficient, speeding up border clearance, and delivering an improved experience to travellers.

ISO/IEC JTC1/SC 37 has published a series of standards dealing with biometric data coding, interfaces, performance tests as well as compliance tests. In order to promote global interoperability it is essential that all these standards are applied in European deployments. However, these standards do not consider national or regional characteristics; in particular, they do not consider European Union privacy and data protection regulation as well as European accessibility and usability requirements [22]. Thus, this Technical Specification amends the ISO standards with respect to special European conditions and constraints.

The Technical Specification systematically discusses issues to be considered when planning and deploying biometric systems for ABC and gives best practice recommendations for those types of systems that are or will be in use in Europe. The document deals with personal identification including ergonomic aspects that have an impact on the acquisition of biometric data.

Communication, infrastructure scalability and security aspects other than those related to biometrics are not considered. This document also does not consider hardware and security requirements of biometric equipment and does not recommend general border crossing procedures.

The enrolment process, e. g. for electronic passports, is out of scope of this document.

2 Terms and definitions

2.1
Automated Border Control (ABC) system
automated system which authenticates the electronic machine readable travel document or token, establishes that the passenger is the rightful holder of the document or token, queries border control records, then determines eligibility of border crossing according to the pre-defines rules

2.2
biometric capture
collection of, or attempt to collect a signal(s) from a biometric characteristic(s), or a representation(s) of a biometric characteristic(s,) and conversion of the signal(s) to a captured biometric sample set [4]

2.3
biometric verification
process of confirming a biometric claim of the holder of an eMRTD through biometric comparison

2.4
border checks
checks carried out at border crossing points, to ensure that persons, including their means of transport and the objects in their possession, may be authorized to enter the territory of the Member States or authorized to leave it [24]

Note 1 to entry: See also “Border crossing point (BCP)”.

2.5
Border Crossing Point
BCP
crossing point authorized by the competent authorities for the crossing of external borders [24]

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