INTERNATIONAL STANDARD

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Personal identification — ISO-compliant driving licence —

Part 5: **Mobile driving licence (mDL) application**

Identification des personnes — Permis de conduire conforme à l'ISO —

Partie 5: Application permis de conduire sur téléphone mobile



ISO/IEC 18013-5:2021(E)



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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.iso.org/directives<

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A list of all parts in the ISO/IEC 18013 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.iso.org/members.html</a

Introduction

The ISO/IEC 18013 series establishes guidelines for the design format and data content of an ISO-compliant driving licence (IDL) with regard to human-readable features (ISO/IEC 18013-1), ISO machine-readable technologies (ISO/IEC 18013-2), access control, authentication and integrity validation (ISO/IEC 18013-3), and associated test methods (ISO/IEC 18013-4). It creates a common basis for international use and mutual recognition of the IDL without impeding individual countries/ states in applying their privacy rules and national/community/regional motor vehicle authorities in taking care of their specific needs.

This document describes interface and related requirements to facilitate ISO-compliant driving licence (IDL) functionality on a mobile device. The requirements are specifically intended to enable verifiers not affiliated with or associated with the issuing authority to gain access to and authenticate the information. In addition, the requirements allow the holder of the driving licence to decide what information to release to a verifier. Other characteristics include the ability to update information frequently, and to authenticate information at a high level of confidence.

A mobile document conforming to this document primarily conveys the driving privileges associated with a person. It does so by providing means to associate the person presenting the mobile document with the mobile document itself. However, the transaction and security mechanisms in this document have been designed to support other types of mobile documents, specifically including identification documents. Consequently the mechanisms in this document can be used for any type of mobile identification document, regardless of the additional attributes the mobile document may convey. The details of the data elements to be used by other mobile documents are left to the respective issuing authority and are not within the scope of this document.

Personal identification — ISO-compliant driving licence —

Part 5:

Mobile driving licence (mDL) application

1 Scope

This document establishes interface specifications for the implementation of a driving licence in association with a mobile device. This document specifies the interface between the mDL and mDL reader and the interface between the mDL reader and the issuing authority infrastructure. This document also enables parties other than the issuing authority (e.g. other issuing authorities, or mDL verifiers in other countries) to:

- use a machine to obtain the mDL data;
- tie the mDL to the mDL holder;
- authenticate the origin of the mDL data;
- verify the integrity of the mDL data.

The following items are out of scope for this document:

- how mDL holder consent to share data is obtained;
- requirements on storage of mDL data and mDL private keys.

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 3166-1, Codes for the representation of names of countries and their subdivisions — Part 1: Country code

ISO 3166-2:2020, Codes for the representation of names of countries and their subdivisions — Part 2: Country subdivision code

ISO/IEC 5218, Information technology — Codes for the representation of human sexes

ISO/IEC~7816-4:2020, Identification~cards — Integrated~circuit~cards — Part~4:Organization, security~and~commands~for~interchange

ISO/IEC 8859-1, Information technology — 8-bit single-byte coded graphic character sets — Part 1: Latin alphabet No. 1

ISO/IEC 18004, Information technology — Automatic identification and data capture techniques — QR Code bar code symbology specification

ISO/IEC 18013-1:2018, Information technology — Personal identification — ISO-compliant driving licence — Part 1: Physical characteristics and basic data set

ISO/IEC 18013-2:2020, Personal identification — ISO-compliant driving licence — Part 2: Machine-readable technologies

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RFC 7519, J. Bradley et al., JSON Web Token (JWT), May 2015

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RFC 7905, A. Langley et al., ChaCha20-Poly1305 Cipher Suites for Transport Layer Security (TLS), June 2016

RFC 8032, S. Josefsson et al., Edwards-Curve Digital Signature Algorithm (EdDSA), January 2017

RFC 8152, J. Schaad, CBOR Object Signing and Encryption (COSE), July 2017

RFC 8252, W. Denniss et al., Oauth 2.0 for Native Apps, October 2017

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RFC 8410, S. Josefsson et al., Algorithm Identifiers for Ed25519, Ed448, X25519, and X448 for Use in the Internet X.509 Public Key Infrastructure, August 2018

RFC 8422, Y. Nir et al., Elliptic Curve Cryptography (ECC) Cipher Suites for Transport Layer Security (TLS) Versions 1.2 and Earlier, August 2018

RFC 8943, M. Jones et al., Concise Binary Object Representation (CBOR) Tags for Date, November 2020

RFC, CBOR Object Signing and Encryption (COSE): Headers for carrying and referencing X.509 certificates

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