

mDL Rule Book

for the EUDI Wallet ecosystem

v1.0.0.

1 Introduction

This document is the mobile driving license (mDL) Rule Book. It contains requirements specific to the mDL use case within the EUDI Wallet. These requirements hold in addition to the requirements in the Architecture Reference Framework (ARF), see [ARF]. Requirements in the ARF hold for all use cases in the EUDI Wallet.

This mDL Rule Book contains the following topics:

- Chapter 0 specifies the mDL attribute schema. This describes the structure, the type, the entity identifiers, and the logical organisation of the mandatory and optional attributes of the mDL. It also describes how Member States can specify any possible national attributes.
- Chapter 3 specifies details about the trust infrastructure necessary for mDL attestations. This information may be moved to another document in the future.

Further topics will be added if and when they are identified.

mDL attribute schema

1.1 Introduction

This document describes the structure, type, data element identifiers, and logical organisation of the mandatory and optional attributes of the mobile driving license (mDL) attestation within the EUDI Wallet. It also describes how Member States can specify any possible national attributes.

Requirement 7 in section 5.2.1 of the ARF specifies that (Q)EAAs must be issued in accordance with one of the data models specified in ISO/IEC 18013-5:2021 or in the W3C Verifiable Credentials Data Model 1.1. Requirements 8 and 10 make clear that for the latter encoding, Selective Disclosure JSON Web Tokens (SD-JWT) must be used, and that consequently, data elements must be encoded in JSON. For the former, data elements must be encoded in CBOR.

However, mobile driving licenses are legally specified in the proposed EC Regulation 2023_127 (4th Driving License Regulation). This Regulation specifies that mDLs shall comply with the ISO/IEC 18013-5 standard. It does not mention any other standards, in particular not [SD JWT]. Consequently, mDLs issued to a EUDI Wallet instance shall not be implemented as [SD JWT]-compliant document. This document therefore specified only an ISO/IEC 18013-5 compliant encoding.

1.2 ISO/IEC 18013-5 compliant encoding

A data model for ISO/IEC 18013-5-encoded mDLs is fully specified in ISO/IEC 18013-5. No changes need to be made to this data model for an mDL attestation within the EUDI Wallet.

2 Trust infrastructure details

2.1 Introduction

To trust a signature over an mDL attestation, the RP needs a mechanism to validate that the public key it uses to verify that signature is trusted. ISO/IEC 18013-5 provides such mechanisms. However, additional details need to be specified to fully specify these mechanisms for mDL attestations within the EUDI Wallet ecosystem.

2.1.1 Trusted Issuer List

Section 5.3.2.2. of [ARF] describes the concept of a trusted list of Issuers. This document specifies that for mDL attestations, such a trusted list SHALL be used. Relying Parties SHALL only trust mDL issuers that are included in a trusted list of mDL issuers. Additionally, there SHALL be only a single trusted list of mDL issuers, which SHALL be generated and maintained by a yet-to-be-determined party. This list SHALL also contain the (root) certificate(s) of each mDL issuer. Regarding the format of this trusted list, the format specified in Annex C of ISO/IEC 18013-5 SHALL be used.

3 References

[ARF]	The Common Union Toolbox for a Coordinated Approach Towards a European Digital Identity Framework - The European Digital Identity Wallet Architecture and Reference Framework, January 2023, Version 1.0.0
[ISO]	ISO/IEC 18013-5, Personal identification — ISO-compliant driving licence — Part 5: Mobile driving licence (mDL) application, First edition, 2021-09
[2015/1505]	COMMISSION IMPLEMENTING DECISION (EU) 2015/1505 of 8 September 2015 laying down technical specifications and formats relating to trusted lists pursuant to Article 22(5) of Regulation (EU) No 910/2014 of the European Parliament and of the Council on electronic identification and trust services for electronic transactions in the internal market
[SD-JWT]	Selective Disclosure for JWTs (SD-JWT) draft-ietf-oauth-selective-disclosure-jwt-04, 11 April 2023 ¹

¹ The exact version to be referenced is to be determined. [ARF] references v0.2. v0.4 is the latest version available at the time of writing of this document. The level of interoperability between these versions is not known. As [SD-JWT] is still under development, presumably later versions will become available over time.
