

English Version

**Identification card systems - European Citizen Card - Part 3:
European Citizen Card Interoperability using an application
interface**

Systèmes de carte d'identification - Carte Européenne du
Citoyen - Partie 3 : Interopérabilité de la Carte européenne
du Citoyen utilisant une interface applicative

Identifikationskartensysteme - Europäische Bürgerkarte -
Teil 3: Anwendungsschnittstelle für die Interoperabilität von
Europäischen Bürgerkarten

This Technical Specification (CEN/TS) was approved by CEN on 14 October 2013 for provisional application.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (CEN/TS 15480-3:2014) 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.

This document supersedes CEN/TS 15480-3:2010.

CEN/TS 15480, *Identification card systems — European Citizen Card*, is composed of the following parts:

- *Part 1: Physical, electrical and transport protocol characteristics;*
- *Part 2: Logical data structures and security services;*
- *Part 3: European Citizen Card Interoperability using an application interface* (the present document);
- *Part 4: Recommendations for European Citizen Card issuance, operation and use;*
- *Part 5: General Introduction.*

The following technical changes have been made in this new edition of CEN/TS 15480-3:

- addition of mention of SAL Lite component, abstraction of GCI and GCAL through Registry processed at SAL level, decision tree update, scope update, etc (5.3.5.3);
- removal of all subclauses under 6.6.3 (Data structures mapping) that were already incorporated in ISO/IEC 24727-4;
- removal of Annex J dedicated to ECC-3 API (handling ISO/IEC 7816-15 objects) considered not appropriate in ECC-3 because implementation-specific and not fundamental to interoperability;
- removal of XML Binding details for SAL API from Clause 10 and Annex G (removal of Annex G); it was incorporated in ISO/IEC 24727-3:2008/DAmD 1, Annex F;
- maintenance of the annex investigating SAL post-issuance personalisation;
- removal of Annex H describing XML binding for Authentication protocols since these protocols are now part of ISO/IEC 24727-3:2008/DAmD 1, i.e. EACv2 protocol binding doesn't need to be reflected in ECC-3 since it is incorporated in ISO/IEC 24727-3:2008, Annex E;
- removal of Annex D “example of CIA implementation for Card –Application Service description” since it is updated and incorporated in ISO/IEC 24727-4:2008/DAmD 1;
- removal of XML-based CardInfo Types (XML Registry) since it is incorporated in ISO/IEC 24727-3:2008/DAmD 1, Annex D, Clause D.3;
- IFD-API shows enhancements in comparison with ISO/IEC 24727 (e.g. SlotCapabilityType with support of transmission protocol descriptor, Transmit command with support of batch APDU, SignalEvent error coding with additional error code), therefore IFD API Annex B are removed from ECC-3 and the clauses describing enhancements are reflected in ECC-3, Annex D amongst the differences with ISO/IEC 24727;

- addition of Annex D, Additional features versus ISO/IEC 24727 (all parts), to incorporate the description of IFD API extensions in terms of API definition and binding;
- removal of 6.2.1.1, Definition for CardInfoRepository.XSD, and 6.2.1.2, Definition for CardInfoRepository.WSDL, since these binding descriptions are now part of ISO/IEC 24727-4:2008/DAmD, 1;
- addition of a new Clause 11 dedicated to Authenticate API: the Authenticate() call makes the service layer module transparent to the Service Provider, it occurs above SAL layer;
- provision of an introductory text describing the layout where Authenticate API fits;
- IFD API C-Language Binding remains in ECC-3 till its endorsement in ISO/IEC 24727 if deemed useful;
- maintenance of ExecuteSAL API in ECC-3 (both C-language binding and java binding);
- incorporation under Annex G of “Application Discovery Profile” for the purposes of integration in ISO/IEC 24727 framework.

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.

1 Scope

This Technical Specification provides an Interoperability Model, which will enable an eService compliant with technical requirements, to interoperate with different implementations of the European Citizen Card.

This Interoperability model will be developed as follows:

- starting from the ECC Part 2, Part 3 of the ECC series provides additional technical specifications for a middleware architecture based on ISO/IEC 24727 (all parts); this middleware will provide an API to an eService as per ISO/IEC 24727-3.
- a set of additional API provides the middleware stack with means to facilitate ECC services.
- a standard mechanism for the validation of the e-ID credential is stored in the ECC and retrieved by the eService.

In order to support the ECC services over an ISO/IEC 24727 middleware configuration, this part of the standard specifies the following:

- a set of mandatory requests to be supported by the middleware implementation based on ISO/IEC 24727 (all parts).
- data set content for interoperability to be personalised in the ECC.
- three middleware architecture solutions: one based on a stack of combined ISO/IEC 24727 configurations and the other based on Web Service configuration whereas the third one is relying on a SAL Lite component.
- an Application DiscoveryProfile featuring the guidelines for card-applications to fit in ISO/IEC 24727 framework.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CEN/TS 15480-2:2012, *Identification card systems — European Citizen Card — Part 2: Logical data structures and security services*

CEN/TS 15480-4, *Identification card systems — European Citizen Card — Part 4: Recommendations for European Citizen Card issuance, operation and use*

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

ISO/IEC 7816-15, *Identification cards — Integrated circuit cards — Part 15: Cryptographic information application*

ISO/IEC 24727-1, *Identification cards — Integrated circuit card programming interfaces — Part 1: Architecture*

ISO/IEC 24727-2:2008¹⁾, *Identification cards — Integrated circuit card programming interfaces — Part 2: Generic card interface*

ISO/IEC 24727-3:2008²⁾, *Identification cards — Integrated circuit card programming interfaces — Part 3: Application interface*

ISO/IEC 24727-4:2008³⁾, *Identification cards — Integrated circuit card programming interfaces — Part 4: Application programming interface (API) administration*

ISO/IEC 24727-5, *Identification cards — Integrated circuit card programming interfaces — Part 5: Testing procedures*

ISO/IEC 24727-6, *Identification cards — Integrated circuit card programming interfaces — Part 6: Registration authority procedures for the authentication protocols for interoperability*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 descriptive elements

information nested in data objects and intended for the discovery mechanism and encapsulated along with procedural elements in the ACD and CCD

3.2 procedural elements

translation code to process any request at the Generic Card Interface (GCI) and every relevant card response

Note 1 to entry: The translation has one entry point, the `translationCode()` function as per ISO/IEC 24727-2.

3.3 middleware

set of abstraction layers which serves as the intermediate between a client-application and an application resident in the ECC and behind which the actual pieces of software running these abstraction layers are implementation-specific and out of the scope of this document

3.4 eService

application based locally on the client PC or based somewhere in the internet (eg government eService, eBusiness eService,...) which offers in combination with the ECC smart card the execution of a task

4 Symbols and abbreviations

ADF	Application Dedicated File
AID	Application Identifier
AJAX	Asynchronous JavaScript and XML
AMB	Access Mode Byte
AT	Authentication Template

1) This document is currently impacted by the draft amendment ISO/IEC 24727-2:2008/DAmD 1.

2) This document is currently impacted by the draft amendment ISO/IEC 24727-3:2008/DAmD 1.

3) This document is currently impacted by the draft amendment ISO/IEC 24727-4:2008/DAmD 1.