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Identification cards — Integrated circuit cards —

Part 15: Cryptographic information application

*Cartes d'identification — Cartes à circuit intégré à contacts —
Partie 15: Application des informations cryptographiques*



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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. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/IEC JTC 1, *Information technology*, Subcommittee SC 17, *Cards and personal identification*.

This second edition cancels and replaces the first edition (ISO/IEC 7816-15:2004), which has been technically revised. It also incorporates the Amendments ISO/IEC 7816-15:2004/Amd. 1:2007 and ISO/IEC 7816-15:2004/Amd. 2:2008 and the Technical Corrigendum ISO/IEC 7816-15:2004/Cor. 1:2004.

ISO/IEC 7816 consists of the following parts, under the general title *Identification cards — Integrated circuit cards*:

- *Part 1: Cards with contacts — Physical characteristics*
- *Part 2: Cards with contacts — Dimensions and location of the contacts*
- *Part 3: Cards with contacts — Electrical interface and transmission protocols*
- *Part 4: Organization, security and commands for interchange*
- *Part 5: Registration of application providers*
- *Part 6: Interindustry data elements for interchange*
- *Part 7: Interindustry commands for Structured Card Query Language (SCQL)*
- *Part 8: Commands and mechanisms for security operations*
- *Part 9: Commands for card management*

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- *Part 10: Electronic signals and answer to reset for synchronous cards*
- *Part 11: Personal verification through biometric methods*
- *Part 12: Cards with contacts — USB electrical interface and operating procedures*
- *Part 13: Commands for application management in a multi-application environment*
- *Part 15: Cryptographic information application*

Introduction

Integrated circuit cards with cryptographic functions can be used for secure identification of users of information systems, as well as for other core security services such as non-repudiation with digital signatures and distribution of enciphering keys for confidentiality. The objective of this part of ISO/IEC 7816 is to provide a framework for such services based on available International Standards. A main goal has been to provide a solution that may be used in large-scale systems with several issuers of compatible cards, providing for international interchange. It is flexible enough to allow for many different environments while still preserving the requirements for interoperability.

A number of data structures have been provided to manage private keys and key fragments to support a public key certificate infrastructure and flexible management of user and entity authentication.

This part of ISO/IEC 7816 is based on PKCS #15 v1.1 (see Reference [9]). The relationship between these documents is as follows:

- a common core is identical in both documents;
- those components of PKCS #15 which do not relate to IC cards have been removed.

This part of ISO/IEC 7816 includes enhancements to meet specific IC card requirements.