Third edition
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Financial services — Key management (retail) —

Part 2: Symmetric ciphers, their key management and life cycle

Services financiers — Gestion de clés (services aux particuliers) —

Partie 2: Algorithmes cryptographiques symétriques, leur gestion de clés et leur cycle de vie

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 11568-2 was prepared by Technical Committee ISO/TC 68, *Financial services*, Subcommittee SC 2, *Financial Services, security*.

This third edition cancels and replaces the second edition (ISO 11568-2:2005), which has been technically revised.

ISO 11568 consists of the following parts, under the general title *Financial services — Key management (retail)*:

— *Part 1: Principles*

— *Part 2: Symmetric ciphers, their key management and life cycle*

— *Part 4: Asymmetric cryptosystems — Key management and life cycle*

Introduction

ISO 11568 is one of a series of standards describing procedures for the secure management of cryptographic keys used to protect messages in a retail financial services environment, for instance, messages between an acquirer and a card acceptor, or an acquirer and a card issuer.

This part of ISO 11568 addresses the key management requirements that are applicable in the domain of retail financial services. Typical of such services are point-of-sale/point-of-service (POS) debit and credit authorizations and automated teller machine (ATM) transactions.

This part of ISO 11568 describes key management techniques which, when used in combination, provide the key management services identified in ISO 11568-1. These services are:

— key separation;

— key substitution prevention;

— key identification;

— key synchronization;

— key integrity;

— key confidentiality;

— key compromise detection.

The key management services and corresponding key management techniques are cross-referenced in Clause 7.

This part of ISO 11568 also describes the key life cycle in the context of secure management of cryptographic keys for symmetric ciphers. It states both requirements and implementation methods for each step in the life of such a key, utilizing the key management principles, services and techniques described herein and in ISO 11568-1. This part of ISO 11568 does not cover the management or key life cycle for keys used in asymmetric ciphers, which are covered in ISO 11568-4.

In the development of ISO 11568, due consideration was given to ISO/IEC 11770; the mechanisms adopted and described in this part of ISO 11568 are those required to satisfy the needs of the financial services industry.