Banking — Key management (retail) —
Part 4:
Asymmetric cryptosystems —
Key management and life cycle

Banque — Gestion de clés (services aux particuliers) —
Partie 4: Cryptosystèmes asymétriques — Gestion des clés et 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 11568-4 was prepared by Technical Committee ISO/TC 68, Financial services, Subcommittee SC 2, Financial services, Security.

This second edition cancels and replaces the first edition (ISO 11568-4:1998) which has been technically revised and incorporates revised text from the former part 5.

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

— Part 1: Principles
— Part 2: Symmetric ciphers, their key management and life cycle
— Part 3: Key life cycle for symmetric ciphers (withdrawn; incorporated into Part 2)
— Part 4: Asymmetric cryptosystems — Key management and life cycle
— Part 5: Key life cycle for public key cryptosystems
— Part 6: Key management schemes (withdrawn)
Introduction

ISO 11568 is one of a series of International Standards describing procedures for the secure management of cryptographic keys used to protect messages in a retail financial services environment; e.g. 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 machines (ATM) transactions.

ISO 11568-2 and ISO 11568-4 describe key management techniques which, when used in combination, provide the key management services identified in ISO 11568-1. These services are:

a) key separation;
b) key substitution prevention;
c) key identification;
d) key synchronization;
e) key integrity;
f) key confidentiality;
g) key compromise detection.

This part of ISO 11568 also describes the key life cycle in the context of secure management of cryptographic keys for asymmetric cryptosystems. 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 symmetric ciphers, which are covered in ISO 11568-2.

This part of ISO 11568 is one of a series that describes requirements for security in the financial services environment, as follows:

ISO 9564-1; ISO 9564-2; ISO 9564-3; ISO/TR 9564-4; ISO 11568; ISO 13491; ISO/TR 19038.