



BSI Standards Publication

# Core banking — Mobile financial services

Part 4: Mobile payments to persons

**National foreword**

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**Core banking — Mobile financial  
services —**

**Part 4:  
Mobile payments-to persons**

*Opérations bancaires de base — Services financiers mobiles —  
Partie 4: Paiements mobiles à personnes*



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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.

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 ISO documents 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](http://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 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](http://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 voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 68, *Financial services*, Subcommittee SC 7, *Core banking*.

A list of all the parts in the ISO 12812 series can be found on the ISO website.

## Introduction

The ISO 12812 series is a multi-part standard addressing interoperable and secure systems for the provision, operation and management of Mobile Financial Services (MFSs).

This document addresses how a payer interacts with a person to initiate and complete a mobile payment. A “person” can be either a natural individual or a small business entity legally recognized as a “person” but where the payment is casual in nature (e.g. where the purpose is to transfer funds between people who know each other, such as family members, friends or neighbours, or where the relationship between two people is casual, such as to pay the babysitter, nanny, handyman, etc.).

Payment instruments used for mobile payments-to-persons are rendered by appropriate MFS applications that are available in or accessed through a mobile device. This mobile device, using an appropriate secure environment, stores or provides access to sensitive data. Such sensitive data include application configuration information, personal account data and user authentication data (authentication credentials), including cryptographic keys.

This document includes a set of requirements and some recommendations intended to facilitate the interoperability of mobile payments-to-persons. This document also outlines the need for consumer protection mechanisms (e.g. including fair contract terms, rules on transparency of charges, clarification of liability, complaints mechanisms and dispute resolution).

The objective of this document is to provide MFSPs with technical provisions to enable the development of interoperable mobile payments-to-persons services, where either the payer or the payee uses a mobile device to transact a payment to a person.

Mobile payments-to-persons may require the payer to input a unique identifier of the payee. The payee of a mobile payments-to-persons transaction (e.g. family member, friend) should be able to verify the received amount and the reason for the payment. Although the standard focuses on mobile payments-to-persons resulting in account-to-account payments, mobile payments-to-persons systems have also been deployed in scenarios where payer and/or payee are unbanked. From a wider perspective, then mobile payments-to-persons and especially remittances, may facilitate later financial inclusion (see [Annex A](#)).

This document differentiates between proximate mobile payments-to-persons and remote mobile payments-to-persons:

- Proximate mobile payments-to-persons refers to a payment conveyed from one mobile device to another mobile device, where the payer and the payee are physically present in the same location. In this document, such mobile devices are assumed to enable a contactless or other communication channel to be established. One example is the Near Field Communication Interface (see ISO 18092), present on an NFC-enabled Mobile Device. NFC technology in the mode called peer-to-peer establishes such a contactless channel between the two communicating devices. This document does not preclude the use of other proximity technologies like (e.g. bluetooth low energy, QR codes).
- Remote mobile payments-to-persons refers to payments in which both the payer and the payee may be not physically present at the same location, meaning that the mobile device establishes a communication channel using a wireless network.

Regarding the implementation of mobile payments-to-persons, the following factors should be considered:

- Technology innovation is dynamic, especially for mobile devices and their operating systems, mobile wallets and payment infrastructures. Thus, requirements should be flexible to handle current and future technologies.
- Regulatory and policy issues should be addressed for the operation of payment systems by ensuring conformance with national and multi-national legislation and regulation, (e.g. Know Your Customer (KYC), Anti-Money Laundering (AML), the U.S. Office of Foreign Assets Control (OFAC) and Combating the Financing of Terrorism (CFT), data protection/privacy and customer protection).

- Global utilization of mobile payments-to-persons in the two following areas:
  - a) The deployment of mobile devices in developing countries that are often challenged by geographical boundaries, a lack of a centralized banking infrastructure, and a need for the provision of MFS to under-banked and/or unbanked individuals.
  - b) Social networks are used by millions or even billions of people in systems relying on interpersonal services (e.g. music, games, relationships). Many of these services generate direct payments-to-persons relationships which may involve the use of mobile payments-to-persons.

Mobile payments-to-persons constitute one type of MFS. The contents of this document are closely related with other parts of the standard. Potential implementers of mobile retail payment solutions should look at part 5. Both parts 4 and 5 of ISO 12812 seek to support all possible technologies and are not intended to favour any specific technology. Therefore, individual implementation of a mobile payments-to-persons service may be highly dependent upon or require the application of other parts of the ISO 12812 standard. In particular:

- ISO 12812-1 describes the general framework and definitions for the standard;
- ISO 12812-2 specifies requirements and recommendations for security and data protection;
- ISO 12812-3 specifies requirements and recommendations for the management of mobile financial applications.

Figures 1 to 6 or part thereof are courtesy of the European Payments Council.

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# Core banking — Mobile financial services —

## Part 4: Mobile payments-to-persons

### 1 Scope

This document provides comprehensive requirements and recommendations, as well as specific use cases for implementation of interoperable mobile payments-to-persons.

The emphasis is placed on the principles governing the operational functioning of mobile payments-to-persons systems and processes, as well as the presentation of the underlying technical, organizational, business, legal and policy issues, leveraging legacy infrastructures of existing payment instruments (see ISO 12812-1:2017, Annex C).

This document includes the following items:

- a) requirements applicable to mobile payments-to-persons;
- b) recommendations regarding mechanisms involved in the operation of interoperable mobile payments-to-persons;
- c) a description of the different use cases for mobile payments-to-persons;
- d) a generic interoperability model for the provision of different mobile payments-to-persons;
- e) recommendations for the technical implementation of the generic architectures for the mobile payments-to-persons program;
- f) recommendations for mobile remittances;
- g) use cases with the corresponding transaction flows;
- h) discussion of the financial inclusion of unbanked and underbanked persons ([Annex A](#));
- i) some legal aspects to consider for mobile payments-to-persons ([Annex B](#)).

The document is structured as follows:

- [Clause 6](#) sets forth the requirements that a mobile payments-to-persons program must comply with.
- [Clauses 7, 8](#) and [9](#) provide the different levels of implementation for the interoperability of mobile payments-to-persons.
- [Clause 7](#) describes the interoperability principles for mobile payments-to-persons.
- [Clause 8](#) describes:
  - 1) a three-layer high-level architecture for mobile payments-to-persons programs;
  - 2) payments instruments sustained by these programs;
  - 3) processing details for a series of significant use cases of mobile payments-to-persons using these payment instruments.
- [Clause 9](#) provides a step-by-step data flow description for different mobile payments-to-persons implementations: bank-centric, non-bank centric and card-centric. They can be mapped into the