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Standards

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S.R. CR 1750:1999

# Identification card systems - Inter-sector messages between devices and hosts - Acceptor to acquirer messages

## S.R. CR 1750:1999

*Incorporating amendments/corrigenda issued since publication:*

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English version

## Identification card systems - Inter-sector messages between devices and hosts - Acceptor to acquirer messages

Systèmes de cartes d'identification - Messages intersectoriels entre terminaux et hôtes - Messages entre accepteur et acquéreur

Identifikationskartensysteme - Branchenübergreifende Nachrichten zwischen Endgeräten und Zentrarechnem - Nachrichten zwischen kartenakzeptant und Acquirer

This CEN Report was approved by CEN on 3 March 1999. It has been drawn up by the Technical Committee CEN/TC 224.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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## Foreword

This document has been prepared by CEN/TC 224, "Machine readable cards, related device interfaces and operations".

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this document : Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

A financial transaction between a retailer and the financial institutions concerned by a card payment brings into play :

- a commercial operation giving rise to a payment by card ;
- a relationship between the retailer (card acceptor) and an initial financial institution (acquirer) in order to ensure the transmission of the elements of the commercial operation ;
- a relationship between the initial financial institution and the banking system.

This last relationship has formed the subject of international CEN Reportisation work within the banking sector (ISO 8583).

Since it involved the banking sector, the scope of the ISO 8583 CEN Report was unable to be extended in order to constitute an intersector CEN Report taking into account the card acceptor – acquirer relationship upstream stage. An attempt along these lines, within the competent ISO committee, which met with a refusal by the national committees, confirmed this assertion.

The development of an intersector CEN Report, dealing specifically with the retailer – initial financial institution relationship, retranscribing as far as possible the data elements and the syntax of the CEN Reportised messages used in the banking sector, was therefore decided upon and undertaken in order to meet the needs of the corresponding European markets.

The CEN Report draft submitted to vote gave rise to two types of reactions, on behalf of certain countries, which led to its rejection :

- such a CEN Report would be unnecessary, as the ISO 8583 CEN Report already meets the need ;
- such a CEN Report would be inappropriate for some of the countries which had already heavily invested in their payment terminal software, despite the envisaged transitional period, which might have resulted in a period of up to five or six years, prior to the putting into application of the CEN Report.

This last objection was unable to be resolved.

So that all those, incidentally numerous, who, in Europe, wish to implement this specification may nevertheless do it on a joint and coherent basis, it was decided to allow them to have at their disposal the result of the quality technical work carried out within the framework of this CEN Reportisation work and to render it public in the form of a CEN Report.

## Introduction

This CEN Report is designed to support message exchange between card acceptors (normally retailers) and acquirers. It defines, among other things, the structure, format and content of messages including those used for authorization, batch data transfer and single message processing. It is based upon the same principles as the well established banking International Standard which supports message exchange between acquirers and card issuers (ISO 8583:1993).

Recognizing that no public domain standard on card acceptor to acquirer messaging exists in Europe, this CEN Report is designed to offer an optional solution to meet on-going business needs which may not have been accommodated by the designs of various de facto national standard. The objectives of this CEN Report include :

- a) accommodate on-going business needs ;
- b) satisfy the needs of a wide variety of retail markets ;
- c) provide flexibility to accommodate emerging technologies, and associated CEN Reports ;
- d) reduce procurement costs ;
- e) accommodate cross-border acceptance ;
- f) facilitate message conversion by the acquirer in processing messages received from the card acceptor into the format suitable for onward transmission, via the respective payments system, to the card issuer.

This CEN Report has potential implications for existing commercial investment in card handling systems throughout Europe. It is recognised within CEN that, in the face of such substantial investment, an EN is not appropriate. It is also recognised that the relationship between this CEN Report and existing national practices varies widely between one country and another. Successful implementation will, therefore only occur when implementors are themselves able to determine clear commercial benefits. For these reasons, this document is published as a CEN Report.

The differences between this CEN Report and EN28583 are limited to those needed to support the many different environments found between the acceptor and the acquirer.

These differences are detailed in clause B.1.

In summary these deal with

- batch uploading/downloading ;
- the need to minimize message length when the communications costs are high and transmission speeds low ;
- there are some specific data elements only relevant to the acceptor to acquirer link.

It is furthermore recognized that some system have been implemented using EN 28583 between the acceptor to the acquirer.

Particular attention has been paid in the design of this CEN Report to ensure its suitability for progression beyond Europe and into the global community. The close association of the global payments systems has ensured its applicability to other areas throughout the world.

## 1 Scope

This CEN Report specifies a common interface for the exchange of messages between card acceptors and acquirers or their agents. It defines the message structure, format and content, data elements, and values for data elements. It is based upon the same principles as EN 28583 (ISO 8583) and is intended to be used when EN 28583 is not appropriate. Where possible, data element names and attributes common to ISO usage are employed. Data representation and communication related characteristics such as protocol, header and trailer information, and transmission control are outside the scope of this CEN Report.

Data representation used in individual systems is subject to the commercial relationships between the parties contracting to each system. The message formats specified in this CEN Report are designed to ensure that compatibility between systems conforming to this CEN Report is always feasible.

## 2 Normative references

This CEN Report incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this CEN Report only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 24909:1989, *Bank cards – Magnetic stripe data content for track 3 (ISO 4909:1987, ed. 2)*.

EN 27813:1992, *Identification cards – Financial transaction cards (ISO 7813:1990, ed. 3)*.

EN 28583, *Financial transaction card originated messages – Interchange message specifications*.

EN 28601:1992, *Data elements and interchange formats – Information interchange – Representation of dates and times (ISO 8601:1998 and its technical corrigendum 1:1991)*.

EN 29564-1:1993, *Banking – Personal Identification Number management and security – Part 1 : PIN protection principles and techniques (ISO 9564-1:1991)*.

ISO 4217:1995, *Codes for the representation of currencies and funds*.

ISO 13489, *Banking – Data elements to be used in international interchange in relation to bit 55 (ICC system-related data) of ISO 8583*.

EN ISO 3166-1:1997, *Codes for the representation of names of countries and their subdivisions – Part 1 : Country codes (ISO 3166-1:1997)*.

EN ISO 8583-2:1998, *Financial transaction card originated messages – Interchange message specifications – Part 2 : Application and registration procedures for Institution Identification Codes (IIC) (ISO 8583-2:1998)*.

EN ISO 8583-3:1998, *Financial transaction card originated messages – Interchange message specifications – Part 3 : Maintenance procedures for codes (ISO 8583-3:1998)*.

EN ISO 9807:1996, *Banking and related financial services – Requirements for message authentication (retail) (ISO 9807:1991)*.

EN ISO/IEC 7812-1:1995, *Identification cards – Identification of issuers – Part 1 : Numbering system (ISO/IEC 7812-1:1993)*.

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