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STANDARD

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**EMBEDDED FINANCIAL TRANSACTIONAL IC**

**CARD READER (EMBEDDED FINREAD) -**

**PART 1: BUSINESS REQUIREMENTS**

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**AGREEMENT**

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English version

## Embedded financial transactional IC card reader (embedded FINREAD) - Part 1: Business requirements

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## **Foreword**

The production of this CWA (CEN Workshop Agreement) specifying a Embedded Financial transactional IC card reader (Embedded FINREAD), was formally accepted at the Embedded FINREAD Workshop's kick-off meeting on 2001-12-14.

The document has been developed through the collaboration of a number of contributing partners in WS-Embedded FINREAD, representing smart card interests.

This CWA has received the support of representatives of each of these sectors. A list of company experts who have supported the document's contents may be obtained from the CEN/ISSS Secretariat.

This CWA consists of the following parts, under the general title *Embedded Financial transactional IC card reader (Embedded FINREAD)* :

- *Part 1 : Business requirements*
- *Part 2 : Functional architecture and technical requirements*
- *Part 3 : Functional and security specifications*
- *Part 4 : Technical architecture and definition of APIs (Application Programming Interface)*

CWA 14722-1 was approved at the Workshop meeting on 2003-02-12 and published by CEN in April 2003; this revised version (mainly editorial changes and lay-out issues) was submitted to CEN for publication on 2004-06-03.

## CWA 14722-1:2004 (E)

## 0 Introduction

Before the FINREAD initiative was instigated, there was no available standard for a secure IC card reader to be used in a private environment to protect electronic transactions on open networks. Because of this, major institutions from the European banking community and a terminal manufacturer, started to work on a common standard known as FINREAD. This standard was published in July 2001 by CEN/ISSS as CWA 14174.

Due to the rapid evolution of e-commerce and m-commerce and the growing number of access devices which are increasingly used to access these services, the need to expand the existing specifications to include a more wider definition of devices became apparent. Till now, the standard was limited to devices connected to a PC. By addressing devices such as mobile phones, set-top boxes or personal digital assistants (PDAs), the initiative has been expanded to include new partners, representing the interests and technology of new industries. As a logical evolution the new consortium was named Embedded FINREAD. The target of the given standard is the embedding and adapting, if needed, the FINREAD specifications into a wide range of new access devices.

### 0.1 Background

At present there is a lack of standards to access financial services based on IC cards via the wide range of different access devices available in the market. It is expected that devices like mobile phones or PDAs, characterised as personal<sup>1</sup> devices on the one hand, and set-top boxes or PC's, characterised as *private*<sup>1</sup> devices on the other hand, will be used to access a rapidly growing number of new services.

The distribution and use of smart bank cards in Europe is planned on networks of bank owned/controlled POS and ATM terminals, with little consideration given to other environments. The availability of new techniques makes it possible to develop access devices which can be used in a variety of applications. To take advantage of such devices, standards are needed.. The wording **secure reader** is used to refer to a secure IC card reader consisting of hardware and software related to a specific application. It is the combination of both the hardware and software which shall comply with banking industry security requirements. According to this definition, only a few IC card readers have either been designed or developed, and generally only for use with a specific application. In contrast to these **secure readers**, most readers available today are classified as **transparent readers**. These dumb devices are mainly only smart card contact units without their own software. They are not certified by a card scheme and they do not guarantee the security and thereby the necessary trust required in an electronic transaction.

There are several reasons inhibiting the manufacturing industry from developing a secure and interoperable access device with a secure reader, which could be universally applicable to a wide range of business needs:

- *nonstandardised software architecture*. Although there are several initiatives to establish a common software architecture to interface with an IC card reader, there is no established standard. Therefore most of the current software applications which are located on a hosting device use proprietary software architectures designed for use with one single type of IC card reader;
- *multiple hardware architectures of access devices*. There is no common hardware architecture between devices such as mobile phones, set-top boxes, PDAs or PCs to use applications on IC cards via an IC card reader. This hinders banks and payment schemes in the development of standardised software products, with regard to the compatibility and the interoperability between different applications based on these devices. In addition no agreement has been made on the security classification and the resources that the reader, in combination with the hosting device, may offer to the different schemes;

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<sup>1</sup> The detailed definition is given in Chapter 1 Scope.

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