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S.R. CEN/TR 16092:2011

# Electronic fee collection - Requirements for pre-payment systems

## S.R. CEN/TR 16092:2011

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English Version

## Electronic fee collection - Requirements for pre-payment systems

Perception de télépéage - Exigences relatives aux systèmes de pré-paiement

Elektronische Gebührenerfassung - Anforderungen für Systeme zur Vorauszahlung

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## Contents

Page

Foreword.....	4
Introduction.....	5
1 Scope .....	6
2 Normative references .....	6
3 Terms and definitions .....	7
4 Abbreviations.....	9
5 Interoperability Issues.....	10
5.1 Interoperability based on EFC Roles Model .....	10
5.2 Interoperability and Payment .....	11
6 Classification of Pre-Pay solutions .....	11
6.1 Pre-Pay Account held in Central System .....	11
6.2 Pre-Pay Account held on OBE .....	12
7 Requirements for Pre-Pay account held in Central Systems.....	13
7.1 General.....	13
7.2 Business Process Requirements.....	13
7.2.1 General.....	13
7.2.2 Issuing of an EFC contract to the Service User .....	13
7.2.3 Personalisation of OBE.....	15
7.2.4 Loading of value onto an account .....	15
7.2.5 Charging of Toll .....	17
7.2.6 Invoicing of the Service User .....	17
7.2.7 Refund of residual amount .....	17
7.2.8 Clearing of Transactions.....	18
7.2.9 Handling of Complaints .....	18
7.2.10 Security Considerations .....	18
7.3 Technical Requirements .....	18
7.3.1 Requirements for OBE .....	18
7.3.2 Requirements for POS Networks .....	18
7.3.3 Requirements for Information and Payment Flow (Interfaces).....	19
7.4 Legal and Functional Constraints.....	19
7.4.1 Legal Considerations .....	19
7.4.2 Functional Constraints.....	21
8 Requirements for Pre-Pay account held on OBE.....	22
8.1 Prerequisites .....	22
8.2 Business Process Requirements.....	22
8.2.1 Issuing of the Pre-Pay mode .....	22
8.2.2 Personalisation of OBE.....	22
8.2.3 Loading of stored value onto a VBD.....	23
8.2.4 Loading of stored value into the OBE .....	23
8.2.5 Charging of the toll.....	24
8.2.6 Clearing of transactions.....	26
8.2.7 Hotlisting / Enforcement .....	27
8.2.8 Invoicing of the Service User .....	27
8.2.9 Refund of residual amount .....	28
8.2.10 Proof of Transactions.....	28
8.2.11 Handling of Complaints .....	28
8.2.12 Security Considerations .....	28
8.3 Technical Requirements .....	29
8.3.1 Requirements for Value Unit bearing User Media.....	29

8.3.2	Requirements for OBE .....	30
8.3.3	Requirements for POS Networks .....	31
8.3.4	Requirements for Information and Payment Flow (Interfaces).....	31
8.4	Legal and Functional Constraints .....	31
8.4.1	Legal Considerations .....	31
8.4.2	Functional constraints .....	33
9	Invoicing of the Service User .....	34
9.1	General.....	34
9.2	VAT considerations .....	34
9.3	Business model considerations .....	35
9.4	Invoice considerations .....	35
10	Gaps in terms of Standards and recommendations .....	37
10.1	Pre-Pay Account held in Central System .....	37
10.2	Pre-Pay Account held on OBE .....	37
10.3	Recommendation for next steps .....	37
	Annex A (informative) Examples of implementations .....	38
	Bibliography .....	40

## **Foreword**

This document (CEN/TR 16092:2011) has been prepared by Technical Committee CEN/TC 278 “Road Transport and Traffic Telematics”, the secretariat of which is held by NEN.

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

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

## Introduction

The discussion on payment-modes within the environment of electronic fee collection at present is based on the existence of a post-payment contract between the Toll Service Provider (TSP) and the Service User (SU).

Pre-conditions of such a contractual agreement are

- sufficient creditworthiness of the SU, and
- existence of a bank account with the SU.

Questions arise in the context of the access to an EFC system for

- SUs not being able to meet the aforementioned pre-conditions;
- SUs with occasional needs to use an EFC system (mainly from the private sector)
  - not willing to open a bank account;
  - not able to open a bank account (by reasons what so ever) and therefore not allowed to participate;
  - from countries with limited access to the card market to participate in an interoperable EFC system, which may otherwise not be open to them.

To meet the requirements of this clientele, one or more suitable ways of pre-payments have to be established for EFC to grant interoperability:

- stored value on an electronic medium;
- stored value in a central account.

As far as private users are concerned legislation could ask for anonymous payment modes as nobody can be forced to open or communicate a bank account. On the other hand such payment modes help Toll Service Providers to offer an interoperable EFC service to customers with a limited monetary risk.

Before defining necessary standards in that field the requirements of a universal Pre-Payment system able to communicate with the OBE have to be evaluated, especially with regard to validity and feasibility for private users.

## 1 Scope

This technical report (TR) analyses requirements for a universal Pre-Pay account system for EFC including the following issues:

- relations to other existing standards in this domain;
- the core requirements and functionality that must be provided.

This technical report will show an analysis of the requirements for a universal prepay system and categorise possible different types of pre-pay solutions, in terms of functionality, technical and legal considerations. As far as legal requirements are concerned it will be clarified whether the pre-payment means fall within the scope of European Directive 2000/46/EC on the taking up, pursuit of and prudential supervision of the business of electronic money institutions and whether the medium-issuing organisation has to act as a financial institution and falls within the scope of the Payment Service Directive 2007/64/EC. The latter applying exactly to payment activities undertaken by entities but do not require a full bank license.

The technical report will describe the current state-of-affairs of EFC pre-payment systems, including the demand for standards and inventory of provisions provided by standards. It will identify and prioritize gaps in terms of standards or other enablers needed in order for the market to provide viable pre-payment solutions in a European context.

There are two general approaches to represent the content of the TR:

- a) allocate each requirement under each pre-pay solution;
- b) allocate each pre-pay solution under each requirement.

To achieve a better understanding and readability alternative a) has been decided (this refers to Clause 8 and Clause 9 only).

The TR does not give any decision on how or whether one of the pre-payment solutions described is commercially feasible to be considered as an implementable offer to the Service User. The return for invest for any TSP regarding the system architecture requirements and other obligations (refunding of SU) is questionable.

This TR just gives a summary of the requirements of possible pre-pay solutions. It is up to decision makers to evaluate the alternatives in the light of their individual preconditions of their tolling regime and of market acceptance.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 15509, *Road transport and traffic telematics — Electronic fee collection — Interoperability application profile for DSRC*

prEN ISO 12855, *Electronic fee collection — Information exchange between service provision and toll charging (ISO/DIS 12855:2009)*

EN ISO 14906, *Road transport and traffic telematics — Electronic fee collection — Application interface definition for dedicated short-range communication (ISO 14906:2004)*

prEN ISO 17573, *Electronic fee collection — System architecture for vehicle related tolling (ISO/DIS 17573:2009)*



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