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ICS 35.240.60

ROAD TRANSPORT AND TRAFFIC

TELEMATICS - ELECTRONIC FEE

COLLECTION (EFC) - GUIDELINES FOR EFC

SECURITY PROTECTION PROFILES

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English version

**Road transport and traffic telematics - Electronic Fee Collection
(EFC) - Guidelines for EFC security protection profiles**

Transports routiers et télématique routière - Systèmes de
péage électronique - Lignes directrices concernant les
profils de protection de la sécurité des péages

This Technical Specification (CEN/TS) was approved by CEN on 30 October 2003 for provisional application.

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CEN ISO/TS 17574:2004 (E)

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Foreword

This document was prepared by Technical Committee CEN/TC 278, "Road Transport and Traffic Telematics" in collaboration with ISO/TC 204 "Transport information and control systems".

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Specification : Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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Introduction

Electronic Fee Collection systems are subject to several ways of fraud both by users and operators but also from people outside the system. These security threats have to be met by different types of security measures including security requirements specifications. This document provides a **guideline** for preparation and evaluation of security requirements specifications, referred to as Protection Profiles (PP) in ISO/IEC 15408 *Information technology - Security techniques - Evaluation criteria for IT security* and ISO/IEC PDTR 15446 *Guide for the production of protection profiles and security target*. By a Protection Profile (PP) is meant a set of security requirements for a category of products or systems that meet specific needs. A typical example would be a PP for On-Board Equipment (OBEs) to be used in an EFC system.

This document should be read in conjunction with the underlying standards ISO/IEC 15408 and ISO/IEC PDTR 15446. Although a layman can read the first part of the document to have an overview on how to prepare a Protection Profile for EFC equipment, the Annexes, and more particularly Clauses A.4 and A.5, require that the reader is familiar with the ISO/IEC 15408.

It is recommended that Electronic Fee Collection (EFC) operators or national organisations, e.g. Highway authorities or Transport Ministries, use this guideline to prepare their own EFC/PP, as security requirements should be described from the standpoint of the operators and/or operators organisations.

It should be noted that this standard is of a more **informative** than normative nature and it can not be used without also using the ISO/IEC 15408. Most of the content of the standard is an example shown in Annex A on how to prepare the security requirements for EFC equipment, in this case an OBE with an IC-card loaded with crucial data needed for the EFC. The example refers to a Japanese national EFC system and should only be regarded and used as **an example**. The Clauses 1 to 5 are normative while Annexes A to D are informative.

After an EFC/PP is prepared, it can be internationally registered by the organisation that prepared the EFC/PP so that other operators or countries that want to develop their EFC system security services, can refer to an already registered EFC/PPs.

This EFC related standard on security service framework and EFC/PP is based on the ISO/IEC 15408, Evaluation criteria for information technology (IT) security. ISO/IEC 15408 includes a set of requirements for the security functions and assurance of IT relevant products and systems. Operators, organisations or authorities defining their own EFC/PP can use these requirements. This will be similar to the different PPs registered by several financial institutions, e.g. for payment instruments like IC-cards.

The products and systems, which were developed in accordance with ISO/IEC 15408, can be publicly assured by the authentication of the government or designated private evaluation agencies.

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