

English Version

**Electronic fee collection - Evaluation of equipment for conformity
to ISO/TS 17575-2 - Part 2: Abstract test suite (ISO 16401-
2:2012)**

Perception du télépéage - Évaluation de conformité de
l'équipement à l'ISO/TS 17575-2 - Partie 2: Suite d'essai
abstraite (ISO 16401-2:2012)

Elektronische Gebührenerhebung -
Konformitätsevaluierung von Einrichtungen nach CEN
ISO/TS 17575-2 - Teil 2: Abstrakte Prüfreihe (ISO 16401-
2:2012)

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Foreword

This document (CEN ISO/TS 16401-2:2012) has been prepared by Technical Committee CEN/TC 278 "Road transport and traffic telematics", the secretariat of which is held by NEN, in collaboration with Technical Committee ISO/TC 204 "Intelligent transport systems".

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Introduction

This part of ISO/TS 16401 is part of a set of standards that supports interoperability of autonomous EFC-systems, which includes ISO/TS 17575 parts 1 to 4 that define the EFC context data, their charge reports and their use of communication infrastructure.

Within the suite of EFC standards this conformance evaluation procedure defines the process and tests for conformity evaluation of Front End and Back End that comply with the requirements in ISO/TS 17575-2.

This part of ISO/TS 16401 is intended to

- assess Front End Communications API and Front End Application capabilities,
- assess Front End Communications API and Front End Application behaviour,
- serve as a guide for Front End Communications API and Front End Application conformance evaluation and type approval,
- achieve comparability between the results of the corresponding tests applied in different places at different times, and
- facilitate communications between parties.

This part of ISO/TS 16401 is based on

- ISO/TS 17575-2, and
- the ISO/IEC 9646 family of standards on conformance test methodology.

Electronic fee collection — Evaluation of equipment for conformity to ISO/TS 17575-2 —

Part 2: Abstract test suite

1 Scope

This part of ISO/TS 16401 specifies the Abstract Test Suite (ATS) to evaluate the conformity of Front End Communications API and Front End Application to ISO/TS 17575-2.

The objective of the present document is to provide a basis for conformance tests for Front End Communications API and Front End Application in Electronic Fee Collection based on autonomous on-board equipment (OBE) to enable interoperability between different equipment supplied by different manufacturers.

The present abstract test suite is directly derived from ISO/TS 17575-2.

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.

ISO/TS 17575-1, *Electronic fee collection — Application interface definition for autonomous systems — Part 1: Charging*

ISO/TS 17575-2, *Electronic fee collection — Application interface definition for autonomous systems — Part 2: Communication and connection to the lower layers*

ISO/TS 17575-3, *Electronic fee collection — Application interface definition for autonomous systems — Part 3: Context data*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/TS 17575-1 and the following apply.

3.1

conformance testing

testing the extent to which an IUT is a conforming implementation

[ISO/IEC 9646-1, definition 3.3.23]

3.2

contract

expression of an agreement between two or more parties concerning the use of the road infrastructure

[ISO 14906:2011, definition 3.7]

NOTE A *contract* specifies obligations, permissions and prohibitions for the objects involved.