

---

**Elektronsko pobiranje pristojbin - Ugotavljanje skladnosti opreme s tehnično specifikacijo ISO/TS 17575-1 - 2. del: Abstraktni preskuševalni niz (ISO 16407-2:2012)**

Electronic fee collection - Evaluation of equipment for conformity to ISO/TS 17575-1 - Part 2: Abstract test suite (ISO 16407-2:2012)

Elektronische Gebührenerhebung - Konformitätsevaluierung von Einrichtungen nach CEN ISO/TS 17575-1 - Teil 2: Abstrakte Prüfreihe (ISO 16407-2:2012)

Perception de télépéage - Evaluation de conformité de l'équipement à l'ISO/TS 17575-1 - Partie 2: Suite de test abstraite (ISO 16407-2:2012)

<https://standards.iteh.ai/catalog/standards/sist/29b2e03a-73aa-48bb-bb84-f4d23fae1cb2/sist-ts-cen-iso-ts-16407-2-2012>

**Ta slovenski standard je istoveten z: CEN ISO/TS 16407-2:2012**

---

**ICS:**

03.220.20	Cestni transport	Road transport
35.240.60	Uporabniške rešitve IT v transportu in trgovini	IT applications in transport and trade

**SIST-TS CEN ISO/TS 16407-2:2012**      **en,fr,de**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST-TS CEN ISO/TS 16407-2:2012](https://standards.iteh.ai/catalog/standards/sist/29b2e03a-73aa-48bb-bb84-f4d23fae1cb2/sist-ts-cen-iso-ts-16407-2-2012)

<https://standards.iteh.ai/catalog/standards/sist/29b2e03a-73aa-48bb-bb84-f4d23fae1cb2/sist-ts-cen-iso-ts-16407-2-2012>

TECHNICAL SPECIFICATION  
SPÉCIFICATION TECHNIQUE  
TECHNISCHE SPEZIFIKATION

**CEN ISO/TS 16407-2**

March 2012

ICS 35.240.60; 03.220.20

English Version

**Electronic fee collection - Evaluation of equipment for conformity  
to ISO/TS 17575-1 - Part 2: Abstract test suite (ISO 16407-  
2:2012)**

Perception de télépéage - Evaluation de conformité de  
l'équipement à l'ISO/TS 17575-1 - Partie 2: Suite de test  
abstraite (ISO 16407-2:2012)

Elektronische Gebührenerhebung -  
Konformitätsevaluierung von Einrichtungen nach CEN  
ISO/TS 17575-1 - Teil 2: Abstrakte Prüfreihe (ISO 16407-  
2:2012)

This Technical Specification (CEN/TS) was approved by CEN on 30 January 2012 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**Management Centre: Avenue Marnix 17, B-1000 Brussels**

**Contents**

Page

Foreword.....3

**iTeh STANDARD PREVIEW  
(standards.iteh.ai)**

SIST-TS CEN ISO/TS 16407-2:2012  
<https://standards.iteh.ai/catalog/standards/sist/29b2e03a-73aa-48bb-bb84-f4d23fae1cb2/sist-ts-cen-iso-ts-16407-2-2012>

## Foreword

This document (CEN ISO/TS 16407-2:2012) 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".

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.

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

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST-TS CEN ISO/TS 16407-2:2012](https://standards.iteh.ai/catalog/standards/sist/29b2e03a-73aa-48bb-bb84-f4d23fae1cb2/sist-ts-cen-iso-ts-16407-2-2012)

<https://standards.iteh.ai/catalog/standards/sist/29b2e03a-73aa-48bb-bb84-f4d23fae1cb2/sist-ts-cen-iso-ts-16407-2-2012>

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST-TS CEN ISO/TS 16407-2:2012](https://standards.iteh.ai/catalog/standards/sist/29b2e03a-73aa-48bb-bb84-f4d23fae1cb2/sist-ts-cen-iso-ts-16407-2-2012)

<https://standards.iteh.ai/catalog/standards/sist/29b2e03a-73aa-48bb-bb84-f4d23fae1cb2/sist-ts-cen-iso-ts-16407-2-2012>

TECHNICAL  
SPECIFICATION

ISO/TS  
16407-2

First edition  
2012-03-01

---

---

**Electronic fee collection — Evaluation of  
equipment for conformity to  
ISO/TS 17575-1 —**

**Part 2:  
Abstract test suite**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**  
*Perception de télépéage — Évaluation de conformité de l'équipement à  
l'ISO/TS 17575-1 —  
Partie 2: Suite de test abstraite*

[SIST-TS CEN ISO/TS 16407-2:2012](https://standards.iteh.ai/catalog/standards/sist/29b2e03a-73aa-48bb-bb84-f4d23fae1cb2/sist-ts-cen-iso-ts-16407-2-2012)  
[https://standards.iteh.ai/catalog/standards/sist/29b2e03a-73aa-48bb-bb84-  
f4d23fae1cb2/sist-ts-cen-iso-ts-16407-2-2012](https://standards.iteh.ai/catalog/standards/sist/29b2e03a-73aa-48bb-bb84-f4d23fae1cb2/sist-ts-cen-iso-ts-16407-2-2012)



Reference number  
ISO/TS 16407-2:2012(E)

© ISO 2012

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST-TS CEN ISO/TS 16407-2:2012](https://standards.iteh.ai/catalog/standards/sist/29b2e03a-73aa-48bb-bb84-f4d23fae1cb2/sist-ts-cen-iso-ts-16407-2-2012)

<https://standards.iteh.ai/catalog/standards/sist/29b2e03a-73aa-48bb-bb84-f4d23fae1cb2/sist-ts-cen-iso-ts-16407-2-2012>



### **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2012

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland



## Contents

Page

Foreword .....	iv
Introduction.....	v
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	1
4 Abbreviations.....	2
5 Abstract Test Method (ATM) .....	2
5.1 Implementations Under Tests .....	2
5.2 Test architecture.....	2
5.3 Protocol Implementation Extra Information for Testing (PIXIT) .....	3
6 Untestable Test Purposes (TP) .....	3
7 ATS data structures .....	3
7.1 ASN.1 description.....	3
8 External functions .....	4
8.1 Functions for communications.....	4
8.2 Functions for timing.....	4
9 Message filtering .....	5
10 ATS naming conventions .....	5
10.1 Definition naming conventions.....	5
10.2 Test Case identifier .....	7
10.3 TTCN-3 modules identifier.....	7
Annex A (normative) TTCN-3 Library modules for FE and BE .....	8
Annex B (informative) PIXIT Proforma for FE and BE .....	9
Bibliography.....	11

## ISO/TS 16407-2:2012(E)

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of document:

- an ISO Publicly Available Specification (ISO/PAS) represents an agreement between technical experts in an ISO working group and is accepted for publication if it is approved by more than 50 % of the members of the parent committee casting a vote;
- an ISO Technical Specification (ISO/TS) represents an agreement between the members of a technical committee and is accepted for publication if it is approved by 2/3 of the members of the committee casting a vote.

An ISO/PAS or ISO/TS is reviewed after three years in order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn. If the ISO/PAS or ISO/TS is confirmed, it is reviewed again after a further three years, at which time it must either be transformed into an International Standard or be withdrawn.

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

ISO/TS 16407-2 was prepared by Technical Committee ISO/TC 204, *Intelligent transport systems*, in collaboration with Technical Committee CEN/TC 278, *Road transport and traffic telematics*.

ISO/TS 16407 consists of the following parts, under the general title *Electronic fee collection — Evaluation of equipment for conformity to ISO/TS 17575-1*:

- *Part 1: Test suite structure and test purposes*
- *Part 2: Abstract test suite*

## Introduction

This part of ISO/IEC 16407 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 17575-1.

This part of ISO/IEC 16407 is intended to

- assess Front End and Back End capabilities,
- assess Front End and Back End behaviour,
- serve as a guide for Front End and Back End 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.

**ITeH STANDARD PREVIEW**  
**(standards.iteh.ai)**

This part of ISO/IEC 16407 is based on [SIST-TS CEN ISO/TS 16407-2:2012](https://standards.iteh.ai/catalog/standards/sist/29b2e03a-73aa-48bb-bb84-f4d23fae1cb2/sist-ts-cen-iso-ts-16407-2-2012)

- ISO/TS 17575-1, and <https://standards.iteh.ai/catalog/standards/sist/29b2e03a-73aa-48bb-bb84-f4d23fae1cb2/sist-ts-cen-iso-ts-16407-2-2012>
- the ISO/IEC 9646 family of standards on conformance test methodology.