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Intelligent transport systems - Cooperative systems - Application requirements and objectives (ISO 17423:2018)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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EN ISO 17423

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Supersedes CEN ISO/TS 17423:2014

English Version

Intelligent transport systems - Cooperative systems - Application requirements and objectives (ISO 17423:2018)

Systèmes de transport intelligents - Systèmes coopératifs - Exigences d'application et objectifs (ISO 17423:2018)

Intelligente Transportsysteme - Kooperative Systeme - ITS Anwendungsanforderungen und Grundsätze (ISO 17423:2018)

This European Standard was approved by CEN on 9 May 2018.

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

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EN ISO 17423:2018 (E)

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European foreword

This document (EN ISO 17423:2018) has been prepared by Technical Committee ISO/TC 204 "Intelligent transport systems" in collaboration with Technical Committee CEN/TC 278 “Intelligent transport systems” the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2018, and conflicting national standards shall be withdrawn at the latest by December 2018.

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Endorsement notice

The text of ISO 17423:2018 has been approved by CEN as EN ISO 17423:2018 without any modification.

INTERNATIONAL STANDARD

ISO 17423

First edition
2018-05

Intelligent transport systems — Cooperative systems — Application requirements and objectives

Systèmes de transport intelligents — Systèmes coopératifs — Exigences d'application et objectifs

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by ISO/TC 204, *Intelligent transport systems*.

This first edition cancels and replaces ISO/TS 17423:2014, which has been technically revised.

Introduction

Abstracting applications from communications is a useful basic architectural principle of Intelligent Transport Systems[1)] (ITS) embodied in the ITS station and communication architecture presented in ISO 21217:2014.

Applications and communications are linked together using the concepts of flows and paths and communication profiles described in ISO 21217:2014 with related flow and path management procedures specified in ISO 24102-6[2)][11]. The ITS station management uses communication requirements and objectives of applications together with the capabilities of the ITS station (status of available communication protocol stacks) and sets of decision rules (regulations and policies) to select suitable parameterized ITS-S communication protocol stacks, also referred to as "ITS-S Communication Profiles" (ITS-SCP), for each source of a potential flow as illustrated in Figure 1. A set of communication requirements is referred to as a Flow Type in ISO 24102-6[11]. There may be well-known registered Flow Types as specified in ISO 17419.

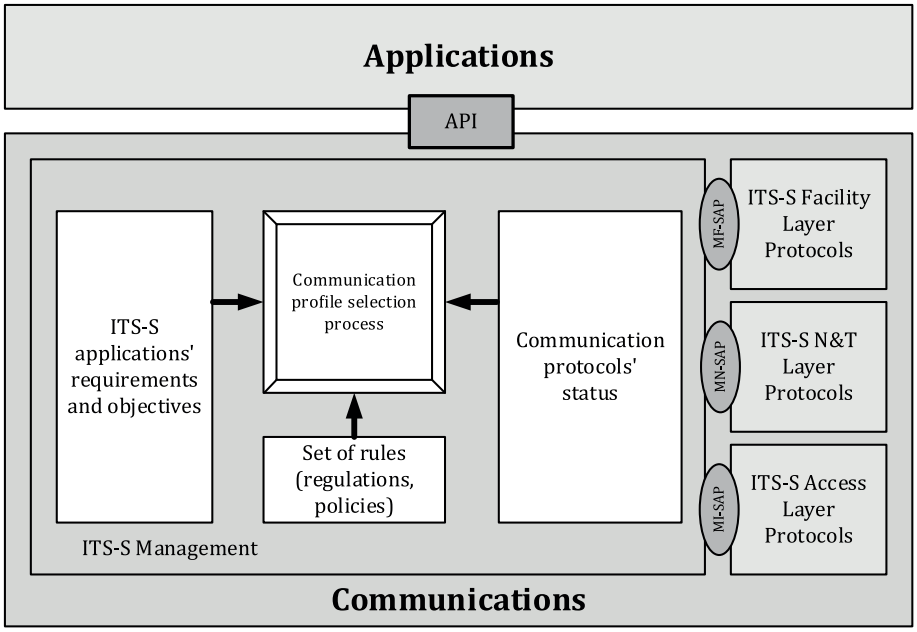

Figure 1 — ITS-S communication profile selection process

An ITS-S communication profile is independent of any destination address. However an instantiation of a communication profile includes the address of the next hop recipient, and a path includes address information of the next hop recipient, the anchor and the destination as specified in ISO 24102-6[11].

A user of an ITS station unit may be able to influence the selection of ITS-S communication profiles by providing his own policies.

Information from a Local Dynamic Map (LDM) on neighbouring stations offering certain communication capabilities may also be useful for the ITS-S communication profile selection process, although not indispensable.

1) The term “Cooperative ITS” (C-ITS) indicates specific features of ITS [4]. For the purpose of this document, no distinction between ITS and C-ITS is needed.

2) To be published.

INTERNATIONAL STANDARD **ISO 17423:2018(E)**

Intelligent transport systems — Cooperative systems — Application requirements and objectives

1 Scope

This document

— specifies communication service parameters presented by ITS station (ITS-S) application processes to the ITS-S management in support of automatic selection of ITS-S communication profiles in an ITS station unit (ITS-SU),

— specifies related procedures for the static and dynamic ITS-S communication profile selection processes at a high functional level,

— provides an illustration of objectives used to estimate an optimum ITS-S communication profile.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 4217:2015, *Codes for the representation of currencies*

ISO/IEC 8824-1:2015, *Information technology — Abstract Syntax Notation One (ASN.1): Specification of basic notation*

ISO 17419, *Intelligent transport systems — Identifiers — Globally unique identification*

ISO 21217:2014, *Intelligent transport systems — Communications access for land mobiles (CALM) — Architecture*

