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Intelligent transport systems - Cooperative systems - ITS application requirements and objectives for selection of communication profiles (ISO/TS 17423:2014)

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

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English Version

Intelligent transport systems - Cooperative systems - ITS application requirements and objectives for selection of communication profiles (ISO/TS 17423:2014)

Systèmes intelligents de transport - Systèmes coopératifs -
Exigences d'application d'ITS pour sélection d'interfaces de
communication (ISO/TS 17423:2014)

Intelligente Transportsysteme - Kooperative Systeme - ITS
Anwendungsanforderungen zur automatischen Auswahl
von Kommunikationsschnittstellen (ISO/TS 17423:2014)

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (CEN ISO/TS 17423:2014) 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.

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Endorsement notice

The text of ISO/TS 17423:2014 has been approved by CEN as CEN ISO/TS 17423:2014 without any modification.

**Intelligent transport systems —
Cooperative systems — ITS application
requirements and objectives for
selection of communication profiles**

*Systèmes intelligents de transport — Systèmes coopératifs —
Exigences d'application d'ITS pour sélection d'interfaces de
communication*





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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.

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ISO/TS 17423 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 278, *Intelligent transport systems*, in collaboration with ISO Technical Committee ISO/TC 204, *Intelligent transport systems*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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.

Applications and communications are linked together using the concepts of flows and paths and communication profiles described in ISO 21217 with related flow and path management procedures specified in Reference [6]. 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 Reference [6]. There may be well-known registered Flow Types as specified in ISO/TS 17419.

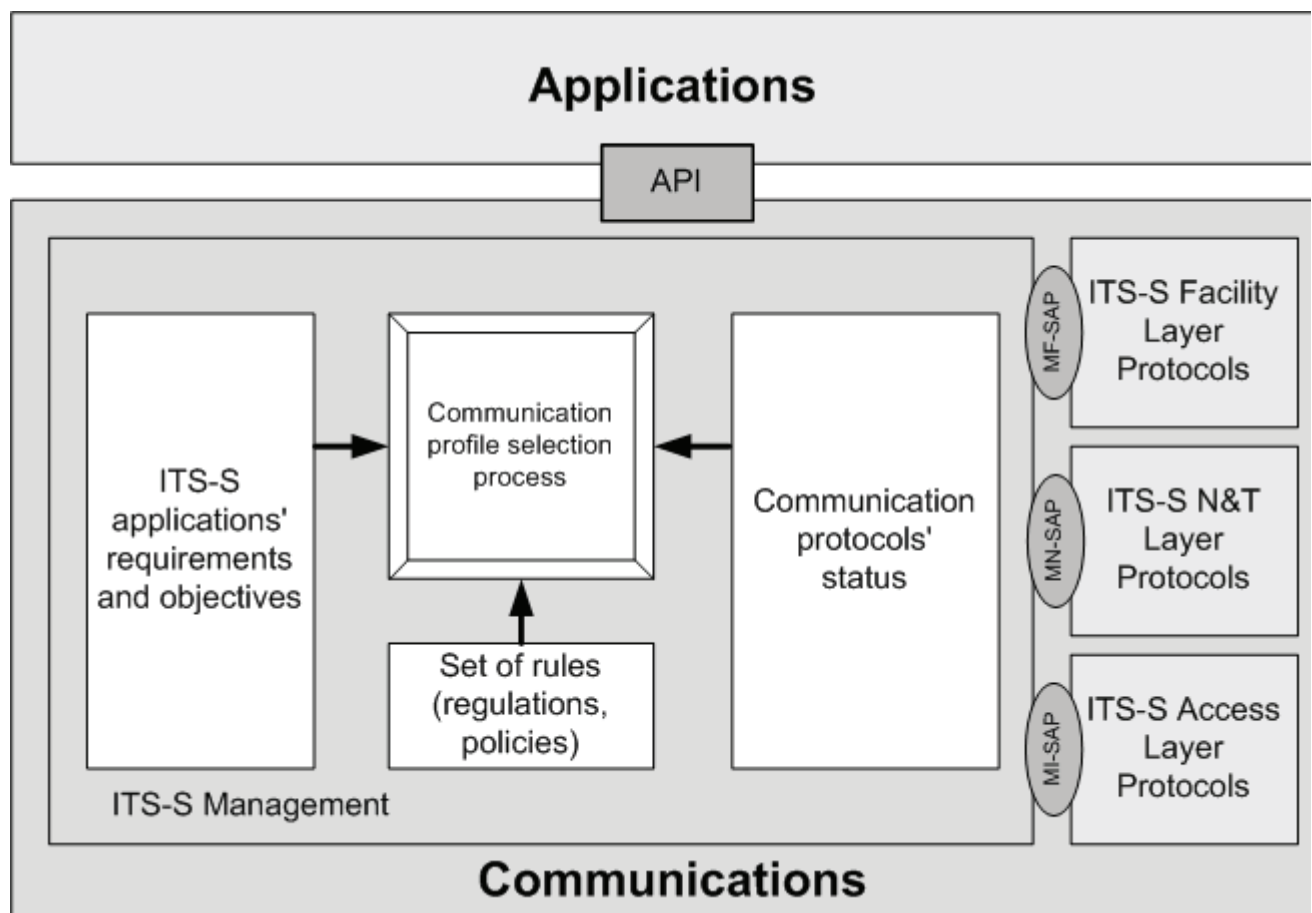


Figure 1 — ITS-S communication profile selection process

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 Reference [6].

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

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

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.

Intelligent transport systems — Cooperative systems — ITS application requirements and objectives for selection of communication profiles

1 Scope

This Technical Specification

- 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, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

ISO 21218, *Intelligent transport systems — Communications access for land mobiles (CALM) — Access technology support*

ISO/TS 17419, *Intelligent transport systems — Cooperative systems — Classification and management of ITS applications in a global context*

ISO 24102-3, *Intelligent transport systems — Communications access for land mobiles (CALM) — ITS station management — Part 3: Service access points*

ISO/IEC 8825-2, *Information technology — ASN.1 encoding rules: Specification of Packed Encoding Rules (PER) — Part 2*

ISO 4217:2008, *Codes for the representation of currencies and funds*

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