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BSI Standards Publication

# Intelligent transport systems — ITS station management

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Part 4: Station-internal management communications

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## National foreword

This British Standard is the UK implementation of ISO 24102-4:2018. It supersedes BS ISO 24102-4:2013+A1:2017, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee EPL/278, Intelligent transport systems.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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**Compliance with a British Standard cannot confer immunity from legal obligations.**

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# Intelligent transport systems — ITS station management —

## Part 4: Station-internal management communications

*Systèmes intelligents de transport — Gestion des stations ITS —  
Partie 4: Communications de gestion interne à la station*



Reference number  
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CH-1214 Vernier, Geneva, Switzerland  
Tel. +41 22 749 01 11  
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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.

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](http://www.iso.org/directives)).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of 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 [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

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

This second edition cancels and replaces the first edition (ISO 24102-4:2013) which has been technically revised. It also incorporates the Amendment ISO 24102-4:2013/Amd1:2017.

A list of all parts in the ISO 24102 series can be found on the ISO website.

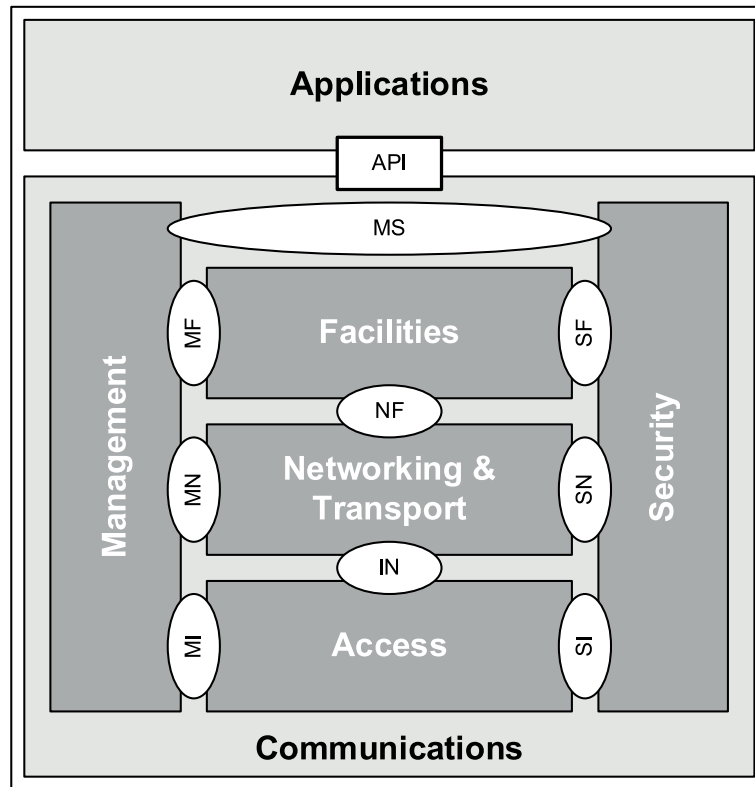
Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

NOTE The former ISO 24102-5 has been converted into a separate standard ISO 22418<sup>[1]</sup>, as it is not a station management standard.

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## Introduction

This document is part of a series of International Standards for communications in intelligent transport systems (ITS) based on the ITS station and communications architecture specified in ISO 21217 and illustrated in [Figure 1](#).



**Figure 1 — ITS station reference architecture with named interfaces**

This document is Part 4 of a multi-part standard which determines the intelligent transport systems (ITS) station-internal management communications that is architecturally located in the ITS station Management entity.

The ITS station management entity provides functionality related to the management of communication protocol layers (Access, Networking & Transport, Facilities), the Security entity, and the ITS Applications entity introduced in ISO 21217:2014 and presented in [Figure 1](#).

ITS station management is specified as a distributed process, where no supervisory entity is employed.

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# Intelligent transport systems — ITS station management —

## Part 4: Station-internal management communications

### 1 Scope

This document provides specifications for secure ITS station-internal management communications.

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

ISO 17419:2018, *Intelligent transport systems — Cooperative ITS — Globally unique identification*

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

ISO 21218, *Intelligent transport systems — Hybrid communications — Access technology support*

ISO 24102-1, *Intelligent transport systems — ITS station management — Part 1: Local management*

ISO 24102-3, *Intelligent transport systems — ITS station management — Part 3: Service access points*

ISO 24102-6, *Intelligent transport systems — ITS station management — Part 6: Path and flow management*

ETSI TS 102 797-2, *Intelligent Transport Systems (ITS); Road Transport and Traffic Telematics (RTTT); Test specifications for Intelligent Transport Systems, Communications access for land mobiles (CALM), ITS station management (ISO 24102); Part 2: Test Suite Structure and Test Purposes (TSS & TP)*

ETSI TS 102 797-3, *Intelligent Transport Systems (ITS); Road Transport and Traffic Telematics (RTTT); Test specifications for Intelligent Transport Systems, Communications access for land mobiles (CALM), ITS station management (ISO 24102); Part 3: Abstract Test Suite (ATS) and partial PIXIT information*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 21217, ISO 21218, ISO 24102-1, and ISO 24102-3 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

#### 3.1

##### **ITS-S communication unit**

physical unit in an ITS-SU containing a part or all of the functionality of an ITS-S

[SOURCE: ISO 21217:2014, 3.21, modified — Note 1 to entry was deleted.]