



BSI Standards Publication

Intelligent transport systems — Communications access for land mobiles (CALM) — ITS station management

Part 4: Station-internal management communications

This is a preview of "BS ISO 24102-4:2013+...". [Click here to purchase the full version from the ANSI store.](#)

National foreword

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 It supersedes BS ISO 24102-4:2013, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to ISO text carry the number of the amendment. For example, text altered by ISO amendment 1 is indicated in the text by A1 A1.

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.

ISBN 978 0 580 85482 8

ICS 03.220.01; 35.240.60

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

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 July 2013.

Amendments/corrigenda issued since publication

Date	Text affected
30 June 2017	Implementation of ISO amendment 1:2017

This is a preview of "BS ISO 24102-4:2013+...". [Click here to purchase the full version from the ANSI store.](#)

First edition
2013-07-01

Intelligent transport systems — Communications access for land mobiles (CALM) — ITS station management —

Part 4: Station-internal management communications

*Systèmes intelligents de transport — Accès aux communications des
services mobiles terrestres (CALM) — Gestion des stations ITS —*

Partie 4: Communications de gestion interne à la station



Reference number
ISO 24102-4:2013(E)

© ISO 2013

This is a preview of "BS ISO 24102-4:2013+...". Click here to purchase the full version from the ANSI store.



COPYRIGHT PROTECTED DOCUMENT

© ISO 2013, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

This is a preview of "BS ISO 24102-4:2013+...". Click here to purchase the full version from the ANSI store.

Contents

	Page
Foreword	iv
Introduction	1
1 Scope	1
2 Normative references	2
3 Terms and definitions	2
4 Abbreviated terms	2
5 ITS station management	3
6 Reference architecture	3
7 Protocol data units	4
8 Communication procedures	6
8.1 Initialization.....	6
8.1.1 IICM.....	6
8.1.2 IICA.....	6
8.2 Transmission.....	7
8.2.1 IIC-Request PDU.....	7
8.2.2 IIC-Response PDU.....	7
8.3 Reception.....	7
8.3.1 IIC-Request PDU.....	7
8.3.2 IIC-Response PDU.....	8
9 Management procedures	8
9.1 General.....	8
9.2 ITS-SCU-ID assignment.....	8
9.3 Maintenance of ITS-SCU-ID.....	9
9.4 Shutdown of ITS-SCU.....	10
10 Security	10
11 Conformance	10
12 Test methods	10
[A₁] Annex A (normative) ASN.1 module	11
[A₁] Annex B (normative) IIC PDUs	17
Bibliography	23

This is a preview of "BS ISO 24102-4:2013+...". Click here to purchase the full version from the ANSI store.

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).

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).

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

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.

Amendment 1 to ISO 24102-4:2013 was prepared by Technical Committee ISO/TC 204, *Intelligent transport systems*.

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

This is a preview of "BS ISO 24102-4:2013+...". Click here to purchase the full version from the ANSI store.

Intelligent transport systems — Communications access for land mobiles (CALM) — ITS station management —

Part 4: Station-internal management communications

Introduction

This International Standard is part of a family of International Standards for communications access for land mobiles (CALM). An introduction to the whole set of International Standards is provided in ISO 21217.

This part of ISO 24012 is part 4 of a multipart International Standard which determines the intelligent transport systems (ITS) station management - station-internal management communications.

The ITS station management entity provides functionality related to the management of communication protocol layers and the security entity presented in the ITS station reference architecture specified in ISO 21217 and presented in [Figure 1](#), and in line with the general ITS architecture specified in ISO 21217.

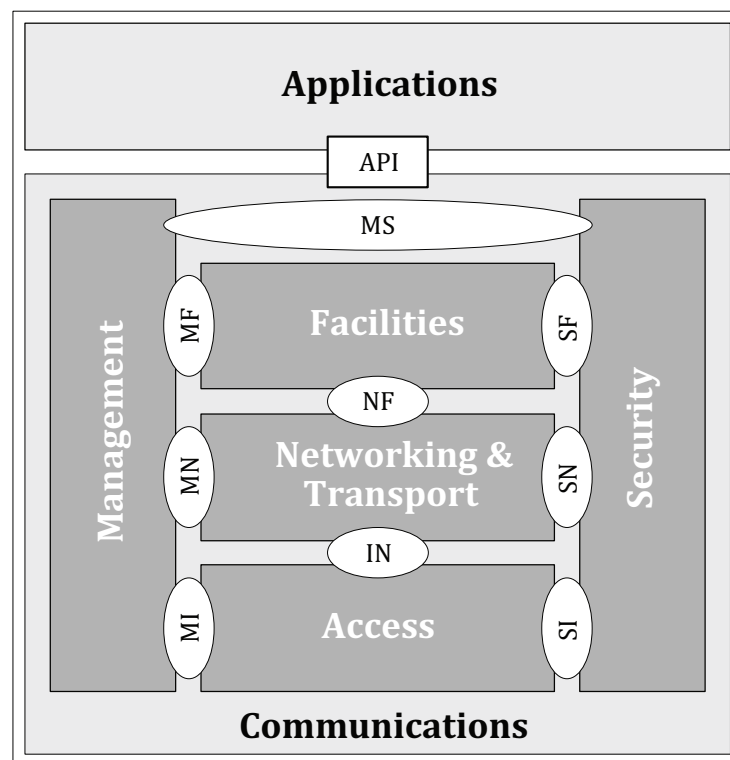


Figure 1 — ITS station reference architecture with named interfaces

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

1 Scope

This part of ISO 24102 provides specifications for secure ITS station-internal management communications.

This is a preview of "BS ISO 24102-4:2013+...". Click here to purchase the full version from the ANSI store.

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

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 24102-1, *Intelligent transport systems — Communications access for land mobiles (CALM) — ITS station management — Part 1: Local management*

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

ETSI TS 102 797-1, *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 1: Protocol Implementation Conformance Statement (PICS) proforma*

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.

3.1

ITS-S communication unit

addressable instance of the ITS station reference architecture comprising as an access to the ITS station-internal network

4 Abbreviated terms

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

ITS-SCU	ITS station communication unit
IIC	ITS-S internal management communications
IICM	IIC Manager
IICA	IIC Agent
IICP	ITS-S internal management communications protocol
n.a.	not applicable