

BSI Standards Publication

Intelligent transport systems — ITS station management

Part 2: Remote management of ITS-SCUs



BS ISO 24102-2:2018 BRITISH STANDARD

This is a preview of "BS ISO 24102-2:2018". Click here to purchase the full version from the ANSI store.

National foreword

This British Standard is the UK implementation of ISO 24102-2:2018. It supersedes BS ISO 24102-2:2015, which is withdrawn.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.

© The British Standards Institution 2018 Published by BSI Standards Limited 2018

ISBN 978 0 580 98968 1

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 30 November 2018.

Amendments/corrigenda issued since publication

Date Text affected

INTERNATIONAL

ISO

This is a preview of "BS ISO 24102-2:2018". Click here to purchase the full version from the ANSI store.

Second edition 2018-11-02

Intelligent transport systems — ITS station management —

Part 2: **Remote management of ITS-SCUs**

Systèmes intelligents de transport — Gestion de la station ITS — Partie 2: Gestion à distance des SCUs-ITS



ISO 24102-2:2018(E)

This is a preview of "BS ISO 24102-2:2018". Click here to purchase the full version from the ANSI store.



COPYRIGHT PROTECTED DOCUMENT

© ISO 2018, 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

Con	Contents		
Forew	ord		v
Intro	duction	L	vi
1	Scope		1
2	Normative references		
3	Terms and definitions		
4	Symbols and abbreviated terms		
5	Requirements		
6		te management architecture	
	6.1 6.2	FunctionalityITS station architecture	
	6.3	Distributed implementation of an ITS-S	
	6.4	RMPE	
	6.5	RMCH	
7	Remo	te management protocol data units	8
8	Service primitive functions		
	8.1	Generic service primitives	
	8.2	MF-SAP service primitive functions	
		8.2.1 Transmission request of RSMP-Request and RSMP-Response	
		8.2.2 Notification of reception of RSMP-Request and RSMP-Response	
	8.3	SF-SAP service primitive functions	
		8.3.1 Security procedure applied to RSMP-Request and RSMP-Response	
		8.3.2 Security procedure applied to RMCH-Request and RMCH-Response	
9	Remote management procedures		
	9.1	Remote management session initiation	
		9.1.1 Initiation by server	
		9.1.2 Initiation by client	
		9.1.4 RSMP session security	
	9.2	Remote management session closure	
		9.2.1 Active closure	
		9.2.2 Timeout	
	0.0	9.2.3 No active session	
	9.3	Firmware update Maintenance of ITS-S protocols	
	9.4 9.5	Maintenance of ITS-S application processes	
	9.6	Maintenance of configuration information	
10		of FSAP	
10	10.1	General	
	10.2	SAM 14	
	10.3	SRM 15	
11	Dyna	mic data	15
12	Conformance		16
13	Test n	nethods	16
Annex	x A (noi	mative) Contexts of the RMPE ITS application class	17
Annex B (normative) ASN.1 modules			
Annex C (informative) Communication service parameters			
Annex D (normative) Implementation conformance statement (ICS) proforma			
20 mon 2 (months) implementation combination dutient (100) protot ind			

ISO 24102-2:2018

This is a preview of "BS ISO 24102-2:2018". Click here to purchase the full version from the ANSI store.

Ribliography 37

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 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.

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

This second edition cancels and replaces the first edition (ISO 24102-2:2015) which has been technically revised.

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.

NOTE The former ISO 24102-5 has been converted into a separate standard ISO 22418, as it is not a station management standard.

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.

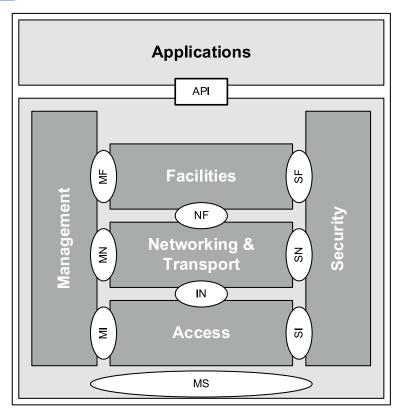


Figure 1 — ITS station reference architecture

This document is Part 2 of a multi-part document which determines remote management of an ITS station unit (ITS-SU) operated as a bounded secured managed entity (BSME).

Remote ITS station management has the purpose of

- setting, updating and deletion of configuration and operation information in an ITS station communication units (ITS-SCU) of an ITS station unit (ITS-SU) specified in ISO 21217, e.g. information on policies and regulations, security related information, accounting information, communication protocol layer parameters[5],
- installation, update and uninstallation of persistent information in an ITS-SCU, e.g. ITS-S application processes specified in ISO 21217, ITS-S communication protocols,
- notification and retrieval of management information, e.g. log files of events, alarms generated by the ITS-SCU(s) of an ITS-SU.

By this it covers the five management areas identified in ISO/IEC 7498-4[1].

Intelligent transport systems — ITS station management —

Part 2:

Remote management of ITS-SCUs

1 Scope

This document provides specifications for intelligent transport systems (ITS) station management to conform with the ITS station reference architecture.

Remote ITS station management is specified by means of protocol data units (PDUs) and procedures of the "Remote ITS Station Management Protocol" (RSMP) related to managed objects in an ITS station communication unit. Distinction is made between managed entities (management clients) and managing entities (management servers).

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.

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

ISO TS 16460, Intelligent transport systems — Communications access for land mobiles (CALM) — Communication protocol messages for global usage

ISO 17419, Intelligent transport systems — Cooperative systems — Globally unique identification

ISO 17423, Intelligent transport systems — Cooperative systems — Application requirements and objectives

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

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 21217, ISO 24102-1, ISO 24102-3, ISO TS 16460, and ISO/IEC 7498- $4^{[1]}$ 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

remote management client

ITS station communication unit in which remote ITS station management is performed by a remote management server