



**SLOVENSKI STANDARD**  
**SIST-TS CEN ISO/TS 14827-4:2023**

**01-januar-2023**

---

**Intelligentni transportni sistemi - Podatkovni vmesniki med centri za transportne informacije in nadzornimi sistemi - 4. del: Podatkovni vmesniki med centri za inteligentne transportne sisteme (ITS) z uporabo XML (profil B) (ISO/TS 14827-4:2022)**

Intelligent transport systems - Data interfaces between centres for transport information and control systems - Part 4: Data interfaces between centres for intelligent transport systems (ITS) using XML (Profile B) (ISO/TS 14827-4:2022)

Verkehrsinformations- und Steuersysteme - Datenschnittstellen zwischen Verkehrsleitstellen und Steuersystemen - Teil 4: Datenschnittstellen zwischen Leitstellen für intelligente Verkehrssysteme (ITS), die XML (Profil B) verwenden (ISO/TS 14827-4:2022)

Systèmes de transport intelligents - Interface de données entre centres pour les systèmes de commande et d'information des transports - Partie 4: Interfaces de données entre centres pour systèmes de transport intelligents (ITS) utilisant XML (Profil B) (ISO/TS 14827-4:2022)

**Ta slovenski standard je istoveten z: CEN ISO/TS 14827-4:2022**

---

**ICS:**

03.220.20	Cestni transport	Road transport
35.240.60	Uporabniške rešitve IT v prometu	IT applications in transport

**SIST-TS CEN ISO/TS 14827-4:2023** en,fr,de



TECHNICAL SPECIFICATION  
SPÉCIFICATION TECHNIQUE  
TECHNISCHE SPEZIFIKATION

**CEN ISO/TS 14827-4**

October 2022

ICS 03.220.01; 35.240.60

English Version

**Intelligent transport systems - Data interfaces between centres for transport information and control systems - Part 4: Data interfaces between centres for Intelligent transport systems (ITS) using XML (Profile B) (ISO/TS 14827-4:2022)**

Systèmes de transport intelligents - Interface de données entre centres pour les systèmes de commande et d'information des transports - Partie 4: Interfaces de données entre centres pour systèmes de transport intelligents (ITS) utilisant XML (Profil B) (ISO/TS 14827-4:2022)

Verkehrsinformations- und Steuersysteme - Datenschnittstellen zwischen Verkehrsleitstellen und Steuersystemen - Teil 4: Datenschnittstellen zwischen Leitstellen für intelligente Verkehrssysteme (ITS), die XML (Profil B) verwenden (ISO/TS 14827-4:2022)

This Technical Specification (CEN/TS) was approved by CEN on 29 August 2022 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.



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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

Contents	Page
European foreword.....	3

iTeh STANDARD PREVIEW  
(standards.iteh.ai)

SIST-TS CEN ISO/TS 14827-4:2023

<https://standards.iteh.ai/catalog/standards/sist/c9924af4-c579-4ea0-b8a6-b5422699802b/sist-ts-cen-iso-ts-14827-4-2023>

## European foreword

This document (CEN ISO/TS 14827-4:2022) 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

## Endorsement notice

The text of ISO/TS 14827-4:2022 has been approved by CEN as CEN ISO/TS 14827-4:2022 without any modification.

[SIST-TS CEN ISO/TS 14827-4:2023](https://standards.iteh.ai/catalog/standards/sist/c9924af4-c579-4ea0-b8a6-b5422699802b/sist-ts-cen-iso-ts-14827-4-2023)

<https://standards.iteh.ai/catalog/standards/sist/c9924af4-c579-4ea0-b8a6-b5422699802b/sist-ts-cen-iso-ts-14827-4-2023>



**TECHNICAL  
SPECIFICATION****ISO/TS  
14827-4**First edition  
2022-09

---

---

**Intelligent transport systems —  
Data interfaces between centres for  
transport information and control  
systems —**

Part 4:

**Data interfaces between centres for  
Intelligent transport systems (ITS)  
using XML (Profile B)***Systèmes de transport intelligents - Interface de données entre centres  
pour les systèmes de commande et d'information des transports —**Partie 4: Interfaces de données entre centres pour systèmes de  
transport intelligents (ITS) utilisant XML (Profil B)*Reference number  
ISO/TS 14827-4:2022(E)

© ISO 2022

# iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST-TS CEN ISO/TS 14827-4:2023

<https://standards.iteh.ai/catalog/standards/sist/c9924af4-c579-4ea0-b8a6-b5422699802b/sist-ts-cen-iso-ts-14827-4-2023>



## **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2022

All rights reserved. Unless otherwise specified, or required in the context of its implementation, 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  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland



# Contents

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Abbreviated terms</b> .....	<b>1</b>
<b>5 Conformance</b> .....	<b>2</b>
<b>6 Exchange modelling framework</b> .....	<b>2</b>
6.1 Web services definition and options.....	3
6.2 Web services PSM mapping of FEP+EP PIMs.....	3
6.3 Security aspects related to WS implementation.....	4
<b>7 Data Delivery FEP+EP PSM definition</b> .....	<b>4</b>
7.1 Overview of Data Delivery PSM definition.....	4
7.2 Profile B Snapshot Pull SOAP WS PSM definition.....	4
7.3 Profile B Snapshot Push SOAP WS PSM definition.....	5
7.4 Profile B Simple Push SOAP WS PSM definition.....	5
7.5 Profile B Stateful Push SOAP WS PSM definition.....	5
<b>8 Collaborative ITS Services FEP+EP PSM definition</b> .....	<b>6</b>
8.1 Overview of Collaborative ITS Service (CIS) PSM definition.....	6
8.2 Profile B Simple CIS SOAP WS PSM definition.....	6
8.3 Stateful CIS.....	6
<b>Annex A (informative) Schemas and WSDL definitions</b> .....	<b>8</b>
<b>Annex B (informative) "Snapshot Pull with simple http server" profile definition</b> .....	<b>10</b>
<b>Bibliography</b> .....	<b>17</b>

## ISO/TS 14827-4:2022(E)

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

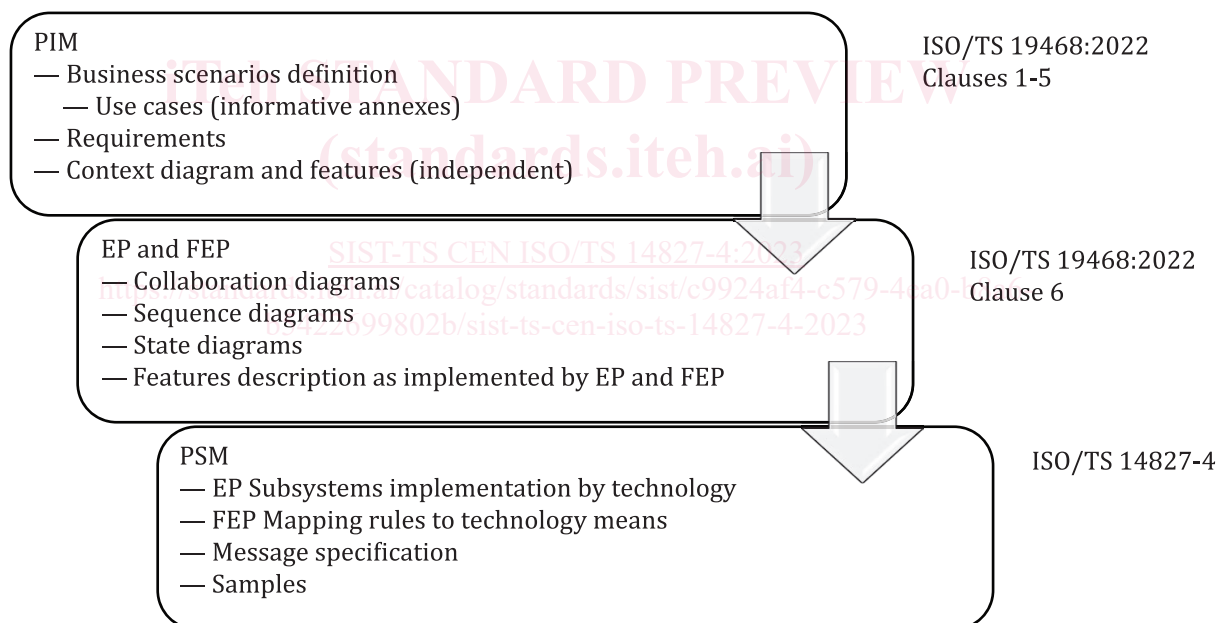
A list of all parts in the ISO 14827 series can be found on the ISO website.

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).

## Introduction

Data exchange among centres is a baseline service for implementing intelligent transport system (ITS) services. For interoperability purposes, data delivery and collaborative ITS services need to be implemented according to certain specifications based on fully-described interfaces. The functional exchange profiles implementing push and pull exchange patterns aim to guarantee timely and reliable delivery of information, based on a defined level of service and user requirements. These depend on application level. A variety of options for implementing exchange are therefore described. These enable several interoperable exchange patterns with required features to fully satisfy user requirements: from Snapshot Pull/Push to Simple Push to Stateful Push, also considering a service request/service feedback collaborative ITS services business scenario, which allows interoperable exchange among any number of interconnected and collaborating elements to implement traffic management and traffic information services orchestrated among several ITS actors.

This document aims to define and describe the requirements on XML messages for implementing messages using XML Profile B. In particular, it is intended to be used in platform-specific implementations using simple object access protocol (SOAP) web services to enable DATEX II (EN 16157-1) XML coded messages for Snapshot Pull, Snapshot Push, Simple Push and Stateful Push. It is additionally relevant to collaborative ITS services (CISs) such as Simple CIS and Stateful CIS exchange patterns with relative functional exchange profiles as described by ISO/TS 19468. [Figure 1](#) describes the relationship between exchange-related documents.



### Key

PIM	platform-independent model
EP	exchange pattern
FEP	functional exchange profile
PSM	platform-specific model

**Figure 1 — Relationship between exchange-related documents**

The message structure defined in this document refers to the "basic exchange data model" and derived data dictionary defined in ISO/TS 19468:2022, Annex C, which is implemented in XML schema by the DATEX II methodology defined in EN 16157-1.

This document is not intended to conflict with existing standards on interfaces of data exchange among ITS centres.