
Intelligent transport systems — Low-speed automated driving system (LSADS) service —

Part 1: Role and functional model

Systèmes intelligents de transport — Service de système de conduite automatisée à vitesse réduite (CAVR) —

Partie 1: Rôle général et modèle fonctionnel



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Contents

Page

Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Abbreviated terms	1
5 Automated driving system classification and service evolution	2
5.1 Introduction	2
5.2 Service classification of AD systems	2
5.3 AD system service evolution	2
6 Infrastructure support for LSADS service role and functional model	3
7 Role and functional model	4
7.1 Objective	4
7.2 National variations	4
7.3 Basic role model	4
7.4 Application layer role and functional model for LSADS	5
7.4.1 Role and functional model options	6
7.4.2 Certification of service providers	6
8 Concept of operations	6
8.1 General	6
8.2 Statement of the goals and objectives of the system	6
8.3 Strategies, tactics, policies and constraints affecting the system	6
8.4 Operational processes for the system	7
8.5 Appointment of a certification authority	7
8.6 Role of the service provider	7
8.7 User	7
9 Operational physical layer role and functional model	8
9.1 General	8
9.2 Actors	8
9.3 LSADS service role and functional model	9
9.3.1 General	9
9.3.2 LSADS service control centre	9
9.3.3 LSADS service user with nomadic device	9
9.3.4 LSADS transport provider	9
9.3.5 LSADS service vehicle	9
9.3.6 LSADS service driving recorder	9
9.3.7 LSADS service vehicle owner	10
9.3.8 LSAD vehicle inspection/certification authority	10
9.3.9 First responders (police/fire fighters)	10
9.3.10 LSADS service supporting infrastructure facilities (ISAD) (physical and digital)	10
9.3.11 Regulator (municipal)	10
9.3.12 Regional road authority	10
9.3.13 SCMS (security credential management system)	10
9.3.14 Traffic management centre	10
9.4 Operational physical layer data flow	11
9.4.1 General	11
9.4.2 External data sharing	11
9.4.3 LSADS service supporting infrastructure facilities	11
9.4.4 Interaction between LSADS components	11

10	Booking and payment layer role and functional model	12
10.1	General	12
10.2	Actors	12
10.3	LSADS service role and functional model in booking and payment layer	12
10.3.1	General	12
10.3.2	User with nomadic device	13
10.3.3	LSADS service provider	13
10.3.4	Strategic route planning	13
10.3.5	Banking	13
10.3.6	Central account payment system	13
10.3.7	Payment media owner	13
10.4	Booking and payment layer data flow	13
10.4.1	General	13
10.4.2	Data flow of booking and payment actions	14
Annex A (informative)	Infrastructure support levels for automated driving (ISAD)	15
Bibliography		16

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).

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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*.

A list of all parts in the ISO 5255 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.

Introduction

In order to introduce low-speed automated driving systems (LSADS) to support mobility used as a means of moving people, goods and services in urban and rural areas, it is necessary to standardize the related service role and functional model.

ISO 22737 describes vehicle driving supports, but does not cover the requirements of the service role or the functional model covering infrastructure facilities. Therefore, a document covering these topics is necessary.

Business use cases regarding LSADS services are currently emerging and further variations are coming to be deployed. Various roles and functional model presentation methodologies are available for use, and there is a need for a set of more commonly understandable role and functional model presentation guidelines. This document defines a common LSADS service role and functional model presentation.

Future emerging business cases can refer to this document as a baseline document. Indeed, this it is intended to assist in the development of future business, and does not hinder them. This document can also contribute to the development of future automated driving system service business cases other than LSADS services.

Intelligent transport systems — Low-speed automated driving system (LSADS) service —

Part 1: Role and functional model

1 Scope

This document defines the requirements of the basic role and functional model of service applications for the introduction of low-speed automated driving system (LSADS) services including infrastructure facilities for supporting mobility in urban and rural areas.

This document covers services using LSADS-equipped vehicles only; in-vehicle control systems are outside the scope.

Examples of infrastructure facilities and road furniture include driving monitoring platforms, emergency response platforms, operation management platforms, user service platforms (e.g. for online reservations and online payments) and platforms for supporting automated driving systems.

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/TR 4445, *Intelligent transport systems — Mobility integration — Role model of ITS service application in smart cities*

ISO/TS 14812, *Intelligent transport systems — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/TS 14812 apply.

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

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

4 Abbreviated terms

AD	automated driving
CAD	connected and automated driving
CONOPS	concept of operations
E-call	emergency call
ISAD	infrastructure support levels for automated driving