TECHNICAL REPORT

ISO/TR 23791

First edition
2019-09

Road vehicles — Extended vehicle (ExVe) web services — Result of the risk assessment on ISO 20078 series

Véhicules routiers — Web services du véhicule étendu (ExVe) — Résultats de l'évaluation des risques de la série de normes ISO 20078

Reference number
ISO/TR 23791:2019(E)

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Published in Switzerland

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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).

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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 22, *Road vehicles*, Subcommittee SC 31, *Data communication*.

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.

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Introduction

The ISO 20078 series specifies a possible web service to implement a certain web interface of the Extended Vehicle, depending on the concerned use case.

The development of this series has revealed several fears about possible risks related to safety, security, competition, liability, and data protection that may originate from that interface.

To address these fears, a list of criteria was first developed to be considered independently of the considered interface. This list is the object of ISO/TR 23786.

This list was then used for assessing the risks originating from the ISO 20078 series and concept to issue this document.

Finally, the risk assessment demonstrated that there are no risks resulting from the ISO 20078 series itself, however, there may be risks resulting from an implementation of that series.

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Road vehicles — Extended vehicle (ExVe) web services — Result of the risk assessment on ISO 20078 series

1 Scope

This document presents the assessment of the safety, security, competition, responsibilities, and data protection risks that can originate from the ISO 20078 series.

In particular, the following risks are outside the scope of this assessment, because they relate to elements that are excluded from the scope of the ISO 20078 series:

— the risks associated with the implementation of the ISO 20078 series;

— the risks associated with the process that the accessing parties or any other parties would later on use to communicate the information they obtained;

— the risks associated with the process used by the resource owner to provide, modify, or revoke their authorization to pass information;

— the risks associated with the mitigation of the risks, should such a mitigation be necessary.

2 Normative references

There are no normative references in this document.

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

— ISO Online browsing platform: available at http://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1.1
accessing party
entity which accesses *resources* (3.1.8) via *web services* (3.1.11)

[SOURCE: ISO 20078-1:2019, 3.1.6, modified — Notes to entry have been deleted.]

3.1.2
authorization provider
entity at the *offering party* (3.1.7) that manages the access rights to resources and *resource owner* (3.1.9) information

[SOURCE: ISO 20078-1:2019, 3.1.9, modified —Note 1 to entry has been deleted.]

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3.1.3
extended vehicle
ExVe
entity, still in accordance with the specifications of the vehicle manufacturer, that extends beyond the physical boundaries of the road vehicle and consists of the road vehicle, off-board systems, external interfaces, and the data communication between the road-vehicle and the off-board systems

[SOURCE: ISO 20077-1:2017, 3.5, modified — Note 1 to entry has been deleted.]

3.1.4
ExVe manufacturer
vehicle manufacturer responsible for the *extended vehicle* (3.1.3)

[SOURCE: ISO 20077-1:2017, 3.6]

3.1.5
identity provider
entity responsible for authentication (identification) of users, through the use of credentials

Note 1 to entry: Offering party confirms the identity of the authenticated resource owner.

[SOURCE: ISO 20078-1:2019, 3.1.7, modified —Note 2 to entry has been deleted.]

3.1.6
intermediate body
party that manages the authorizations given by the *resource owner* (3.1.9) to communicate resources to the *accessing party* (3.1.1) via *web service* (3.1.11)

3.1.7
offering party
entity who provides *web services* (3.1.11) access to *resources* (3.1.8)

[SOURCE: ISO 20078-1:2019, 3.1.3.]

3.1.8
resource
data, aggregated information or functionalities of the connected vehicle

[SOURCE: ISO 20078-1:201, 3.2.1, modified —Note 1 to entry has been deleted.]

3.1.9
resource owner
responsible party for the *resource(s)* (3.1.8)

Note 1 to entry: The resource owner is responsible for granting, denying, and revoking access to resource(s).

Note 2 to entry: The responsible resource owner is determined by the concrete resource.

[SOURCE: ISO 20078-1:2019, 3.1.4.]

3.1.10
resource provider
entity at the *offering party* (3.1.7) that protects and provides *resources* (3.1.8)

[SOURCE: ISO 20078-1:2019, 3.1.8.]

3.1.11
web service
software system, with an interface described in a machine-processable format, and designed to support interoperable machine-to-machine interaction over a network

[SOURCE: ISO 20077-1:2017, 3.21.]

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