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Road vehicles — Extended vehicle (ExVe) web services —

Part 2: Access

Véhicules routiers — Web services du véhicule étendu (ExVe) — Partie 2: Accès

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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).

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).

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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*.

This second edition cancels and replaces the first edition (ISO 20078-2:2019), which has been technically revised.

The main changes are as follows:

— added definition of a push method, allowing the offering party to push resources to the accessing party according to subscription;

— added definition of reusable subscription profiles, used to store URI locations and authorization information from the accessing party and used by offering party to push subscribed resources;

— defined requirements for container management API;

— added Annex A and digital Annex B describing container management API;

— revised error format;

— redefined resource versioning.

A list of all parts in the ISO 20078 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.

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Road vehicles — Extended vehicle (ExVe) web services —

Part 2:
Access

1 Scope

This document defines how to access resources on a web-services interface of an offering party using the Hypertext Transfer Protocol Secure (HTTPS). Resources can be accessed through request/reply and/or requested to be pushed.

The Representational State Transfer (REST) architectural pattern is chosen as a common way to format resource paths both for request/reply and push. Some specific extensions to this pattern are defined to allow for asynchronous resource requests, such as, for example, forcing readouts of data from a connected vehicle.

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 20078-1, *Road vehicles — Extended vehicle (ExVe) web services — Part 1: Content and definitions*

ISO 8601 (all parts), *Date and time — Representations for information interchange*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 20078-1 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 https://www.electropedia.org/

3.2 Abbreviated terms

For the purposes of this document, the abbreviated terms given in ISO 20078-1 apply.

4 Representational state transfer-based interface

4.1 General

4.1.1 Introduction

There are three different ways to access resources for the accessing party, request/reply, push, and push with a subsequent request/reply. Request/reply is the recommended method, but push can be used when needed. In most cases only one method is used for a particular resource, but sometimes both

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