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Information technology — Dynamic adaptive streaming over HTTP (DASH) —

Part 2: Conformance and reference software

Technologies de l'information — Diffusion en flux adaptatif dynamique sur HTTP (DASH) —

Partie 2: Conformité et logiciel de référence

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

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 document 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 Joint Techncial Committee ISO/IEC JTC 1, *Information technology*, SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

This third edition cancels and replaces the second edition (ISO/IEC 23009-2:2017), which has been technically revised.

The main changes compared to the previous edition are as follows:

a) Test vectors, conformance and reference software to cover all the features of ISO/IEC 23009-5, including:

   — SAND HTTP conformance client;

   — SAND HTTP conformance server;

   — SAND WebSocket conformance server.

b) Test vecors, conformance and reference software to cover all the features of ISO/IEC 23009-6, including:

   — Command line tool to validate of ABNF grammars.

A list of all parts in the ISO/IEC 23009 series can be found on the ISO website.

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Introduction

The conformance and reference software of the ISO/IEC 23009 series serves three main purposes:

— validation of the written specification of the Parts of the ISO/IEC 23009 series;

— clarification of the written specification of the Parts of the ISO/IEC 23009 series;

— conformance testing for checking interoperability for the various applications against the reference software which aims to be compliant with the ISO/IEC 23009 series.

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Information technology — Dynamic adaptive streaming over HTTP (DASH) —

Part 2: Conformance and reference software

1 Scope

This document specifies the conformance and reference software implementing the test vectors comprising media presentation descriptions, segments and combinations thereof in ISO/IEC 23009-1, and the corresponding software modules.

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/IEC 19757-3, *Information technology — Document Schema Definition Languages (DSDL) — Part 3: Rule-based validation — Schematron*

ISO/IEC 23009-1:2019, *Information technology — Dynamic adaptive streaming over HTTP (DASH) — Part 1: Media presentation description and segment formats*

ISO 8601-1, *Date and time — Representations for information interchange — Part 1: Basic rules*

ISO/IEC 23009-5:2017, *Information technology — Dynamic adaptive streaming over HTTP (DASH) — Part 5: Server and network assisted DASH (SAND)*

IETF RFC 7233:2014, *Hypertext Transfer Protocol (HTTP/1.1): Range Requests*

3 Terms, definitions, symbols and abbreviated terms

For the purpose of this document, the terms, definitions, symbols and abbreviated terms given in ISO/IEC 23009-1 apply.

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

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

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

4 Media presentation conformance

4.1 Overview

A media presentation conforming to ISO/IEC 23009-1 obeys the rules for the media presentation description (MPD) and the segments referenced within the MPD. To verify the conformance of a media presentation, the following steps need to be completed:

— the conformance of the MPD according to Clause 5.

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