

# ISO/IEC TR 23009-3

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

Part 3: Implementation Guidelines

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

Partie 3: Lignes directrices pour la mise en oeuvre







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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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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. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

In exceptional circumstances, the joint technical committee may propose the publication of a Technical Report of one of the following types:

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ISO/IEC TR 23009-3, which is a Technical Report of type 3, was prepared by Joint Technical Committee ISO/IEC JTC 1, Information technology, Subcommittee SC 29, Coding of audio, picture, multimedia and hypermedia information.

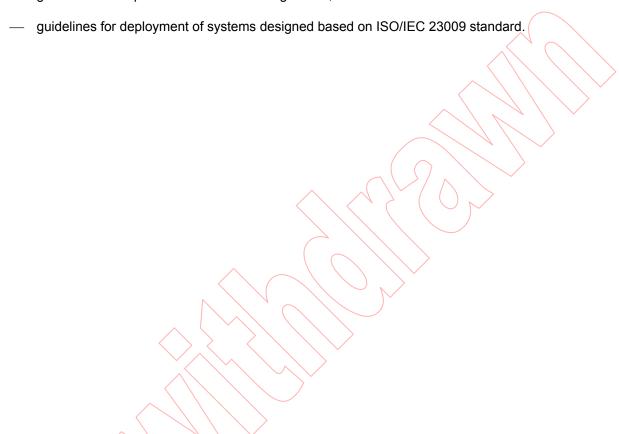
ISO/IEC TR 23009 consists of the following parts, under the general title *Information technology* — *Dynamic adaptive streaming over HTTP (DASH)*:

- Part 1: Media presentation description and segment formats
- Part 2: Conformance and reference software
- Part 3: Implementation guidelines
- Part 4: Segment encryption and authentication

### Introduction

This Part of ISO/IEC 23009 provides guidelines for implementation and deployment of streaming media delivery systems based on ISO/IEC 23009 standard. These guidelines include

- guidelines for streaming content generation;
- guidelines for implementation of streaming clients; and



# Information technology — Dynamic adaptive streaming over HTTP (DASH) — Part 3: Implementation guidelines

#### 1 Scope

This part provides technical guidelines for implementing and deploying systems based on ISO/IEC 23009 International Standard.

#### 2 References

The following referenced documents are indispensable for the application 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 23009-1 Information technology Dynamic adaptive streaming over HTTP (DASH) Part 1: Media presentation description and segment formats.
- ISO/IEC 23009-2 Information technology Dynamic adaptive streaming over HTTP (DASH) Part 2: Conformance and reference software.
- ISO/IEC 23009-4 Information technology Dynamic adaptive streaming over HTTP (DASH) Part 4: Format independent segment encryption and authentication.
- ITU-T Rec. H.222.0 | ISO/IEC 13818-1, Information technology Generic coding of moving pictures and associated audio information: Systems
- ITU-T Rec. H.262 | ISO/IEC 13818-2, Information technology Generic coding of moving pictures and associated audio information: Video
- ISO/IEC 13818-3, Information technology Generic coding of moving pictures and associated audio information: Audio
- ISO/IEC 14496-3, Information technology Coding of audio-visual objects Part 3: Audio
- ITU-T Rec. H.264 | ISO/IEC 14496-10, Information technology Coding of audio-visual objects Part 10: Advanced Video Coding
- ISO/IEC 14496-12, Information technology Coding of audio-visual objects Part 12: ISO base media file format (technically identical to ISO/IEC 15444-12)
- ITU-T Rec. H.265 | ISO/IEC 23008-2, Information technology Coding of audio-visual objects Part 2: High Efficiency Video Coding
- ISO/IEC 23003-1, Information technology MPEG audio technologies Part 1: MPEG Surround
- ISO/IEC 23003-3, Information technology MPEG audio technologies Part 3: Unified Speech and Audio Coding
- ISO/IEC 23001-7, Information technology MPEG systems technology Part 7: Common encryption in ISO base media file format files

ISO/IEC 23001-8, Information technology – MPEG systems technologies – Part 8: Coding-independent code points

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IETF RFC 6381, The 'Codecs' and 'Profiles' Parameters for "Bucket" Media Types, August 2011

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SCTE 172, Constraints on AVC Video Coding for Digital Program Insertion, 2011.

W3C, Media Source Extensions, W3C Recommendation (Draft), 18, January 2013.

W3C, Encrypted Media Extensions, W3C Recommendation (Draft), 22 January 2013.