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Part 9: Redundant encoding and packaging for segmented live media (REaP)

Technologies de l'information — Diffusion adaptative dynamique sur HTTP (DASH) —

Partie 9: Encodage et empaquetage redondant des segments médias en direct (REaP)

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Foreword

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Introduction

This document specifies a reference architecture for redundant encoding and packaging of segmented live media.

In addition, it specifies format constraints to enable encoding and packaging of interchangeable media segments and media presentation descriptions.

This document also specifies formats for 24x7 live recording and archiving of segmented live media.

Listed examples in this document are also available at https://standards.iso.org/iso-iec/23009/-9/ed-1/en/ .

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

Part 9:
Redundant encoding and packaging for segmented live media (REaP)

1 Scope

This document specifies formats for redundant encoding and packaging of live segmented media (REaP).

This document specifies:

a) formats for Interchangeable Live Media Ingest and stream announcement;

b) format and segmentation strategy to generate interchangeable segments;

c) formats for generating interchangeable media presentation descriptions or playlists;

d) formats for efficient cloud storage access and archiving of live segmented media.

e) a protocol for communicating media descriptor files and fragmented media between encoders and packagers.

REaP enables the following:

1) failover support and rejoining of distributed components in the workflow (see Annex E);

2) workflows for live with dynamic ad insertion (DAI) with a decisioning system.

3) workflows with digital rights management (DRM) and content protection.

4) Mixing file and live inputs.

This document specifies additional constraint to formats defined in ISO/IEC 14496-12, ISO/IEC 23009-1, ISO/IEC 23000-19 and IETF RFC 8216.

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 14496-12, *Information technology — Coding of audio-visual objects — Part 12: ISO base media file format*

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

ISO/IEC 23000-19, *Information technology — Multimedia application format (MPEG-A) — Part 19: Common media application format (CMAF) for segmented media*

IETF RFC 8216, *HTTP Live Streaming*

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