

IEEE Standard for Adaptive Streaming

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Abstract: The media presentation description (MPD) format and media segment format for dynamic and adaptive streaming over networks such as Hypertext Transfer Protocol (HTTP) are specified in this standard. Particularly, the specified formats support multi-stream synchronization, content protection, and content authentication. The target applications and services include, but are not limited to, Internet media streaming, Internet Protocol television (IPTV), and video on demand.

Keywords: adaptive streaming, content security, IEEE 1857.7™, media presentation, MPD, media presentation description, multi-stream, ownership, segment

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Zongming Guo
Cheng Huang
Tiejun Huang

Li Liu
Yongliang Liu
Xin Wang

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Haiwu Zhao
Chao Zhou

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Demetrio Bucaneg
Keith Chow
Weiming Dong
Wen Gao
Randall Groves
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Mehmet Ulema
Phil Wennblom
Philip Winston
Howard Wolfman
Jingyi Zhou

*Member Emeritus

Introduction

This introduction is not part of IEEE Std 1857.7-2018, IEEE Standard for Adaptive Streaming.

This standard specifies the media presentation description (MPD) format and media segment format for dynamic and adaptive streaming over networks such as Hypertext Transfer Protocol (HTTP).

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IEEE Standard for Adaptive Streaming

1. Overview

1.1 Scope

This standard specifies the media presentation description (MPD) format and media segment format for dynamic and adaptive streaming over networks such as Hypertext Transfer Protocol (HTTP). Particularly, the specified formats support multi-stream synchronization, content protection, and content authentication.

1.2 Purpose

This standard specifies the MPD format and media segment format for dynamic and adaptive streaming over networks such as HTTP, with highlighted features of multi-stream synchronization, content protection, and content authentication. The target applications and services include, but are not limited to, Internet video, on-demand streaming, and live streaming.

2. Normative references

The following referenced documents are indispensable for the application of this document (i.e., they must be understood and used, so each referenced document is cited in text and its relationship to this document is explained). For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments or corrigenda) applies.

GB/T 20090.1, Information technology—Advanced coding of audio and video—Part 1: System.¹

GB/T 20090.9, Information technology—Advanced coding of audio and video—Part 9: File format.

IETF RFC 1738, Uniform Resource Locators (URL).²

IETF RFC 2616, Hypertext Transfer Protocol – HTTP/1.1.

IETF RFC 3986, Uniform Resource Identifier (URI): Generic Syntax.

¹ GB/T documents are available from the Standardization Administration of China (<https://www.chinesestandard.net>) and from the American National Standards Institute (<http://www.ansi.org/>).

² IETF RFCs are available from the Internet Engineering Task Force (<https://www.ietf.org/rfc.html>).