

STN	Funkcie zákazníckeho terminálu pre prístup k IPTV a otvoreným internetovým multimedialnym službám Časť 2-2: Adaptívne streamovanie pomocou HTTP	STN EN 62766-2-2
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Consumer terminal function for access to IPTV and open internet multimedia services - Part 2-2: HTTP adaptive streaming

Táto norma obsahuje anglickú verziu európskej normy.

This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 08/17

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 62766-2-2

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English Version

**Consumer terminal function for access to IPTV and open internet
multimedia services -
Part 2-2: HTTP adaptive streaming
(IEC 62766-2-2:2016)**

Fonction des terminaux grand public pour l'accès aux
services IPTV et multimédias de l'internet ouvert -
Partie 2-2: Diffusion en flux adaptatif sur HTTP
(IEC 62766-2-2:2016)

Verbraucher Endgeräte Funktion für den Zugriff auf IPTV
und offene Internet Multimedia Dienstleistungen -
Teil 2-2: Anpassungsfähiger HTTP Datenstrom
(IEC 62766-2-2:2016)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

The text of document 100/2488/CDV, future edition 1 of IEC 62766-2-2, prepared by IEC/TC 100 "Audio, video and multimedia systems and equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62766-2-2:2017.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2017-10-21
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2020-04-21

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Annex ZA
(normative)

**Normative references to international publications
with their corresponding European publications**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62766-1	-	Consumer terminal function for access to IPTV and open Internet multimedia services - Part 1: General	EN 62766-1 ¹⁾	-
IEC 62766-2-1	-	Consumer terminal function for access to IPTV and open Internet multimedia services - Part 2-1: Media formats	EN 62766-2-1	-
IEC 62766-3	-	Consumer terminal function for access to IPTV and open internet multimedia services - Part 3: Content metadata	EN 62766-3	-
IEC 62766-4-1	-	Consumer terminal function for access to IPTV and open multimedia services - Part 4-1: Protocols	-	-
IEC 62766-5-1	-	Consumer terminal function for access to IPTV and open multimedia services - Part 5-1: Declarative Application Environment	-	-
IEC 62766-6	-	Consumer terminal function for access to IPTV and open Internet multimedia services - Part 6: Procedural application environment	-	-
IEC 62766-7	-	Consumer terminal function for access to IPTV and open Internet multimedia services - Part 7: Authentication, content protection and service protection	-	-
ISO/IEC 13818-1	2015	Information technology - Generic coding of moving pictures and associated audio information - Part 1: Systems	-	-
ISO/IEC 14496-12	2012	Information technology - Coding of audio-visual objects - Part-12: ISO base media file format	-	-
ISO/IEC 23001-7	2015	Information technology - MPEG systems technologies - Part 7: Common encryption in ISO base media file format files	-	-

¹⁾ At draft stage.

EN 62766-2-2:2017

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO/IEC 23009-1	2014	Information technology - Dynamic adaptive - streaming over HTTP (DASH) - Part 1: Media presentation description and segment formats	-	-
ISO 639	Series	Codes for the representation of names of languages	-	-
ETSI TS 101 154 V1.11.1	2012	Digital Video Broadcasting (DVB); Specification for the use of Video and Audio Coding in Broadcasting applications based on the MPEG-2 Transport Stream	-	-

3GPP TS 26.234 V9.3.0 (2010-06), Transparent end-to-end Packet-switched Streaming Service (PSS) Protocols and codecs (Release 9)

3GPP TS 26.244 V9.2.0 (2010-06), Transparent end-to-end packet switched streaming service (PSS), 3GPP file format (3GP) (Release 9)

3GPP TS 26.247 V10.1.0 (2011-11), Transparent end-to-end Packet-switched Streaming Service (PSS), Progressive Download and Dynamic adaptive streaming over HTTP (3GPDASH) (Release 10)

Marlin Developer Community, Marlin adaptive streaming Specification – Simple Profile, Version 1.0, July 2011, available at <http://www.marlin-community.com/develop/downloads>

Marlin Developer Community, Marlin adaptive streaming Specification – Full Profile, Version 1.0, August 2011, available at <http://www.marlin-community.com/develop/downloads>



INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Consumer terminal function for access to IPTV and open internet multimedia services –
Part 2-2: HTTP adaptive streaming**

**Fonction des terminaux grand public pour l'accès aux services IPTV et
multimédias de l'internet ouvert –
Partie 2-2: Diffusion en flux adaptatif sur HTTP**





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INTERNATIONAL STANDARD

NORME INTERNATIONALE



Consumer terminal function for access to IPTV and open internet multimedia services –

Part 2-2: HTTP adaptive streaming

**Fonction des terminaux grand public pour l'accès aux services IPTV et
multimédias de l'internet ouvert –**

Partie 2-2: Diffusion en flux adaptatif sur HTTP

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CONSUMER TERMINAL FUNCTION FOR ACCESS TO IPTV AND OPEN INTERNET MULTIMEDIA SERVICES –

Part 2-2: HTTP adaptive streaming

FOREWORD

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International Standard IEC 62766-2-2 has been prepared by IEC technical committee 100: Audio, video and multimedia systems and equipment.

The text of this standard is based on the following documents:

CDV	Report on voting
100/2488/CDV	100/2658/RVC

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

This International Standard is to be used in conjunction with IEC 62766-1.

A list of all parts in the IEC 62766 series, published under the general title *Consumer terminal function for access to IPTV and open internet multimedia services*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
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- replaced by a revised edition, or
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INTRODUCTION

The IEC 62766 series is based on a series of specifications that was originally developed by the OPEN IPTV FORUM (OIPF). They specify the user-to-network interface (UNI) for consumer terminals to access IPTV and open internet multimedia services over managed or non-managed networks as defined by OIPF.

CONSUMER TERMINAL FUNCTION FOR ACCESS TO IPTV AND OPEN INTERNET MULTIMEDIA SERVICES –

Part 2-2: HTTP adaptive streaming

1 Scope

This part of IEC 62766 specifies media formats for adaptive unicast content streaming over HTTP.

Two HTTP adaptive streaming formats are specified. The first is based entirely on MPEG DASH. The second is the OIPF “HTTP adaptive streaming” (HAS) format, which is based upon 3GPP’s release 9 adaptive HTTP streaming (AHS) format, with some profiling and extensions to add the features of media components and support for MPEG-2 transport stream content segment format. The latter format was specified before MPEG DASH had been published. It is retained due to usage in some legacy applications.

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.

IEC 62766-1¹, *Consumer terminal function for access to IPTV and open Internet multimedia services – Part 1: General*

IEC 62766-2-1, *Consumer terminal function for access to IPTV and open Internet multimedia services – Part 2-1: Media formats*

IEC 62766-3, *Consumer terminal function for access to IPTV and open Internet multimedia services – Part 3: Content metadata*

IEC 62766-4-12, *Consumer terminal function for access to IPTV and open Internet multimedia services – Part 4-1: Protocols*

IEC 62766-5-1³, *Consumer terminal function for access to IPTV and open Internet multimedia services – Part 5-1: Declarative application environment*

IEC 62766-6⁴, *Consumer terminal function for access to IPTV and open Internet multimedia services – Part 6: Procedural application environment*

IEC 62766-7⁵, *Consumer terminal function for access to IPTV and open Internet multimedia services – Part 7: Authentication, content protection and service protection*

¹ Under preparation. Stage at the time of publication: IEC/CDV 62766-1:2015

² Under preparation. Stage at the time of publication: IEC/CDV 62766-4-1:2015

³ Under preparation. Stage at the time of publication: IEC/CDV 62766-5-1:2015

⁴ Under preparation. Stage at the time of publication: IEC/CDV 62766-6:2015

⁵ Under preparation. Stage at the time of publication: IEC/CDV 62766-7:2015

ISO/IEC 13818-1:2014, *Information technology – Generic coding of moving pictures and associated audio information – Part 1: Systems*

ISO/IEC 14496-12:2012, *Information technology – Coding of audio-visual objects – Part 12: ISO base media file format*

ISO/IEC 23001-7:2015, *Information technology – MPEG systems technologies – Part 7: Common encryption in ISO base media file format files*

ISO/IEC 23009-1:2014, *Information technology — Dynamic adaptive streaming over HTTP (DASH) — Part 1: Media presentation description and segment formats*

ISO 639 (all parts), *Codes for the representation of names of languages*

ETSI TS 101 154 V1.11.1 (2012-11), *Digital Video Broadcasting (DVB); Specification for the use of Video and Audio Coding in Broadcasting Applications based on the MPEG-2 Transport Stream*

3GPP TS 26.234 V9.3.0 (2010-06), *Transparent end-to-end Packet-switched Streaming Service (PSS) Protocols and codecs (Release 9)*

3GPP TS 26.244 V9.2.0 (2010-06), *Transparent end-to-end packet switched streaming service (PSS), 3GPP file format (3GP) (Release 9)*

3GPP TS 26.247 V10.1.0 (2011-11), *Transparent end-to-end Packet-switched Streaming Service (PSS), Progressive Download and Dynamic adaptive streaming over HTTP (3GP-DASH) (Release 10)*

Marlin Developer Community, *Marlin adaptive streaming Specification – Simple Profile, Version 1.0, July 2011, available at <<http://www.marlin-community.com/develop/downloads>>*

Marlin Developer Community, Marlin adaptive streaming Specification – Full Profile, Version 1.0, August 2011, available at
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