**3GPP TSG- Meeting #**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** |  | **rev** |  | **Current version:** |  |  |
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| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** |  | | | | | | | | | |
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| ***Source to WG:*** |  | | | | | | | | | |
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| ***Work item code:*** |  | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***Release:*** | | |  |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
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| ***Reason for change:*** | | The objective of this work item is to address the recommendations for stage-3 extensions of the studies FS\_AMD and FS\_MS\_NS\_Ph2 in the relevant specifications, primarily TS 26.510, TS 26.512 and TS 26.517, and based on the stage-2 extensions in TS 26.501 and TS 26.502. Specifically, the following objectives are identified:  2. Provide relevant extensions to the Stage 3 5G Media Streaming protocols:  d. For *distributing encrypted and high-value content* as introduced in clause 5.10 of TR 26.804:  i. Support the Content Protection Information Exchange Format (CPIX) as specified in ETSI TS 103 799 at reference point M2d.  ii. Support the DASH-IF Interoperability Points specified in DASH-IF IOP Part 6 at reference point M4d for both DASH and HLS.  iii. Specification of a Content Preparation Template format in TS 26.512  that can configure encryption content preparation tasks in the 5GMS AS.  iv. Support other relevant aspects resulting from stage-2.  3. For key topic address the following aspects:  a. Specify the required protocols or protocol extensions  b. Define relevant APIs  c. Specify the OpenAPIs YAML as well as other stage-3 API.  e. Address remaining stage-3 aspects.  4. Coordinate work with other 3GPP groups as needed. For details see clause 8.  5. Coordinate work with external organizations such as SVTA (primarily the DASH-IF WG), CTA WAVE, ISO/IEC JTC29 WG3 (MPEG Systems), 5G-MAG, DVB and/or IETF, as needed. | | | | | | | | |
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| ***Summary of change:*** | | * Define a content preparation template for encryption, possibly aligning with CPIX document structures * Address the relevant signaling on M4 in the manifest to provide the content protection signaling for DASH, and possibly HLS. | | | | | | | | |
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| ***Consequences if not approved:*** | | Feature not supported | | | | | | | | |
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| ***Clauses affected:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | |  |  | | --- | --- | | TDoc | [S4-250990](https://www.3gpp.org/ftp/tsg_sa/WG4_CODEC/TSGS4_132_Fukuoka/Docs/S4-250990.zip) | | Title | [AMD\_PRO-MED] DRM Protocol Support | | Source | Qualcomm Sweden | | Contact | Thomas Stockhammer | | Agenda Item | 8.5 | | E-mail Discussion |  | | Revisions | No revisions available. | | Minutes | Richard: short normative annex is your plan, right?  Thomas: Yes, this example is a starting point.  Richard: this annex will also has content for content steering, right?  Thomas: yes  Jason: will there be some features being mapped no matter?  Thomas: no, this is not correct understanding  Joson: so there could be, for example, one for cmmf protocol which will then point out this  Thomas: yes | | Disposition | A draft revision  will be produced and will be endorsed | | Status | parked | | | | | | | | | |

## ===== CHANGE =====

Annex X (normative):  
DASH in 5G Media Streamingin DASH

# X.1 Introduction

This Annex a binding between DASH as defined in ISO/IEC 23009-1 and 3GPP TS 26.247 as a media streaming protocol in 5G Media Streaming. In this context, it provides a mapping of DASH functionalities to generic 5G Media Streaming terms. It also provides requirements and recommendations on how certain features defined in 5G media Streaming can be supported when DASH is used as the Media Streaming Protocol.

The Annex also provides a connection how TS 26.511, namely how content defined in TS 26.511 based on CMAF can be delivered through 5G Media Streaming using DASH.

# X.2 General Mapping of DASH to 5G Media Streaming

# X.Y Content Protection and DRM

## X.Y.1 Overview

## X.Y.2 DASH Content Offering Requirements and Recommendations

## X.Y.3 DASH Client Requirements and Recommendations

## X.Y.4 Examples

* 1. Example for content protected by multiple schemes

In the example below, *example.com* is a provider of CDN services and also a hosting service for movie service providers *MoviesSP*. The English audio and the video tracks are encrypted and licensed by *MoviesSP*. However, the French audio track is encrypted and licensed by a different service provider.

A hypothetical DRM standardization organization has registered a Scheme Type 'ZZZZ' with MP4REG and documented how scheme specific licensing information is stored entirely within the content so there is no additional information provided in the ContentProtection element. Since the scheme type is registered and the rules for its use are documented, the "urn:mpeg:dash:mp4protection:2011" is used for the @schemeIdUri and "ZZZZ" is the assigned @value.

In addition, a second DRM scheme is used that comes from a DRM vendor who has published documentation of their system that declares that they use the DASH ContentProtection element with a @schemeIdUri attribute value "<http://example.net/052011/drm>". (This DRM vendor owns the domain *example.net* as of May, 2011.) Documentation for this scheme states that there have to be two URLs in the ContentProtection element that are placed in elements defined in the <http://example.net/052011/drm> namespace. The License element contains a license token, and the Content element contains a content token. Regardless of which service provider uses the protection product from this DRM vendor, these rules need to be always followed.

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| <?xml version="1.0" encoding="UTF-8"?>  **<MPD**  xmlns:xsi=*"http://www.w3.org/2001/XMLSchema-instance"*  xmlns=*"urn:mpeg:dash:schema:mpd:2011"*  xmlns:drm=*"http://example.net/052011/drm"*  xsi:schemaLocation=*"urn:mpeg:dash:schema:mpd:2011 DASH-MPD.xsd"*  type=*"static"*  mediaPresentationDuration=*"PT3256S"*  minBufferTime=*"PT10.00S"*  profiles=*"urn:mpeg:dash:profile:isoff-on-demand:2011"***>**  **<BaseURL>**http://cdn.example.com/movie23453235/**</BaseURL>**  **<Period>**  *<!-- Audio protected with a specified license -->*  **<AdaptationSet** mimeType=*"audio/mp4"* codecs=*"mp4a.40"* lang=*"en"*  subsegmentStartsWithSAP=*"1"*  subsegmentAlignment=*"true"***>**  **<ContentProtection** schemeIdUri=*"http://example.net/052011/drm"***>**  **<drm:License>**http://MoviesSP.example.com/protect?license=kljklsdfiowek**</drm:License>**  **<drm:Content>**http://MoviesSP.example.com/protect?content=oyfYvpo8yFyvyo8f**</drm:Content>**  **</ContentProtection>**  **<Representation** id=*"1"* bandwidth=*"64000"***>**  **<BaseURL>**audio/en/64.mp4**</BaseURL>**  **</Representation>**  **</AdaptationSet>**  *<!-- Audio protected with embedded information defined by 'ZZZZ' -->*  **<AdaptationSet** mimeType=*"audio/mp4"* codecs=*"mp4a.40"* lang=*"fr"*  subsegmentStartsWithSAP=*"1"*  subsegmentAlignment=*"true"***>**  **<ContentProtection** schemeIdUri=*" urn:mpeg:dash:mp4protection:2011"* value=*"ZZZZ"***/>**  **<Representation** id=*"3"* bandwidth=*"64000"***>**  **<BaseURL>**audio/fr/64.mp4**</BaseURL>**  **</Representation>**  **</AdaptationSet>**  *<!-- Timed text in the clear -->*  **<AdaptationSet** mimeType=*"application/ttml+xml"* lang=*"de"***>**  **<Representation** id=*"5"* bandwidth=*"256"***>**  **<BaseURL>**subtitles/de.xml**</BaseURL>**  **</Representation>**  **</AdaptationSet>**  *<!-- Video protected with a specified license -->*  **<AdaptationSet** mimeType=*"video/mp4"* codecs=*"avc1"* subsegmentAlignment=*"true"* subsegmentStartsWithSAP=*"2"***>**  **<ContentProtection** schemeIdUri=*"http://example.net/052011/drm"***>**  **<drm:License>**http://MoviesSP.example.com/protect?license=jfjhwlsdkfiowkl**</drm:License>**  **<drm:Content>**http://MoviesSP.example.com/protect?content=mslkfjsfiowelkfl**</drm:Content>**  **</ContentProtection>**  **<BaseURL>**video/**</BaseURL>**  **<Representation** id=*"6"* bandwidth=*"256000"* width=*"320"* height=*"240"***>**  **<BaseURL>**video256.mp4**</BaseURL>**  **</Representation>**  **<Representation** id=*"7"* bandwidth=*"512000"* width=*"320"* height=*"240"***>**  **<BaseURL>**video512.mp4**</BaseURL>**  **</Representation>**  **<Representation** id=*"8"* bandwidth=*"1024000"* width=*"640"* height=*"480"***>**  **<BaseURL>**video1024.mp4**</BaseURL>**  **</Representation>**  **</AdaptationSet>**  **</Period>**  **</MPD>** |

* 1. Multi-key encryption

In many cases content rights agreements stipulate different requirements for different classes of premium content. For example, software decoding and decryption are often sufficient for content with 576 or less horizontal lines, while hardware decryption and decoding are required for UHD content. Similarly, different degrees of output protection are needed for different resolutions.

The example below shows an MPD for a content offering with three classes of video content (SD, HD, and UHD) with different keys for each class. Each class of resolutions corresponds to a single adaptation set, and Adaptation Set switching (see clause 5.3.3.5) is used to switch between them.

Depending on the content and output protection features detected by the DRM client, the client is given access to all or some keys. The MPD below also states the DRM robustness and output protection characteristics needed for playback. The client is expected to use these to avoid switching into representations it will not be allowed to present.

NOTE 1: robustness values are DRM-specific

NOTE 2: The license server response is the source of truth in case of a mismatch between the capability detection done by the client and by the DRM agent.

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| <?xml version="1.0" encoding="UTF-8"?>  **<MPD** xmlns:xsi=*"http://www.w3.org/2001/XMLSchema-instance"*  xmlns=*"urn:mpeg:dash:schema:mpd:2011"*  xsi:schemaLocation=*"urn:mpeg:dash:schema:mpd:2011 DASH-MPD.xsd"*  xmlns:cenc=*"urn:mpeg:cenc:2013"*  type=*"dynamic"*  id=*"42"*  profiles=*"urn:mpeg:dash:profile:isoff-live:2011"*  minBufferTime=*"PT2.000S"*  maxSegmentDuration=*"PT0H0M2.016S"*  minimumUpdatePeriod=*"PT0H0M2.002S"*  availabilityStartTime=*"1977-05-25T18:00:00.000Z"*  timeShiftBufferDepth=*"PT0H0M30.000S"*  publishTime=*"2021-04-17T04:15:27.145Z"***>**  **<Period** id=*"807136760"*  start=*"PT384015H43M16.234S"***>**  *<!-- SD Adaptation Set (keyID: ed1f2e89-8a1f-47f8-a5f5-371dd397464c) -->*    **<AdaptationSet** id=*"0"*  contentType=*"video"*  mimeType=*"video/mp4"*  segmentAlignment=*"true"*  startWithSAP=*"1"***>**  **<ContentProtection** schemeIdUri=*"urn:mpeg:dash:mp4protection:2011"*  value=*"cenc"*  cenc:default\_KID=*"ed1f2e89-8a1f-47f8-a5f5-371dd397464"***/>**  **<ContentProtection** schemeIdUri=*"urn:uuid:afbcb50e-bf74-3d13-be8f-13930c783962"*  robustness=*"SW\_SECURE\_DECODE"***>**  **<cenc:pssh>**...**</cenc:pssh>**  **</ContentProtection>**  **<ContentProtection** schemeIdUri=*"urn:uuid:9a04f079-9840-4286-ab92-e65be0885f95"*  value=*"MSPR 2.0"*  robustness=*"SL2000"***>**  **<cenc:pssh>**...**</cenc:pssh>**  **</ContentProtection>**  *<!-- Can switch to HD or UHD -->*  **<SupplementalProperty** schemeIdUri=*"urn:mpeg:dash:adaptation-set-switching:2016"*  value=*"1,2"***/>**  **<Accessibility** schemeIdUri=*"urn:scte:dash:cc:cea-608:2015"*  value=*"CC1=eng"***/>**  **<Role** schemeIdUri=*"urn:mpeg:dash:role:2011"*  value=*"main"***/>**  **<SegmentTemplate** initialization=*"$RepresentationID$/init.mp4"*  media=*"$RepresentationID$/$Time$.mp4"*  timescale=*"90000"*  startNumber=*"807170070"*  presentationTimeOffset=*"36403"***>**  **<SegmentTimeline>**  **<S** t=*"6002913283"* d=*"180180"* r=*"13"***/>**  **</SegmentTimeline>**  **</SegmentTemplate>**  **<Representation** id=*"root\_video4"*  bandwidth=*"769600"*  codecs=*"hvc1.2.4.L93.B0"*  width=*"512"*  height=*"288"*  frameRate=*"30000/1001"***/>**  **</AdaptationSet>**  *<!-- HD Adaptation Set (keyID: 65ee94f8-54db-4460-ae6d-401bf195fc2b) -->*  **<AdaptationSet** id=*"1"*  contentType=*"video"*  mimeType=*"video/mp4"*  segmentAlignment=*"true"*  startWithSAP=*"1"***>**  **<ContentProtection** schemeIdUri=*"urn:mpeg:dash:mp4protection:2011"*  value=*"cenc"*  cenc:default\_KID=*"65ee94f8-54db-4460-ae6d-401bf195fc2b"***/>**  **<ContentProtection** schemeIdUri=*"urn:uuid:afbcb50e-bf74-3d13-be8f-13930c783962"*  robustness=*"HW\_SECURE\_CRYPTO"***>**  **<cenc:pssh>**...**</cenc:pssh>**  **</ContentProtection>**  **<ContentProtection** schemeIdUri=*"urn:uuid:9a04f079-9840-4286-ab92-e65be0885f95"*  value=*"MSPR 2.0"*  robustness=*"SL2000"***>**  **<cenc:pssh>**...**</cenc:pssh>**  **</ContentProtection>**  *<!-- Can switch to SD or UHD -->*  **<SupplementalProperty** schemeIdUri=*"urn:mpeg:dash:adaptation-set-switching:2016"*  value=*"0,2"***/>**  **<Accessibility** schemeIdUri=*"urn:scte:dash:cc:cea-608:2015"*  value=*"CC1=eng"***/>**  **<Role** schemeIdUri=*"urn:mpeg:dash:role:2011"*  value=*"main"***/>**  **<SegmentTemplate** initialization=*"$RepresentationID$/init.mp4"*  media=*"$RepresentationID$/$Time$.mp4"*  timescale=*"90000"*  startNumber=*"807170070"*  presentationTimeOffset=*"36403"***>**  **<SegmentTimeline>**  **<S** t=*"6002913283"*  d=*"180180"*  r=*"13"***/>**  **</SegmentTimeline>**  **</SegmentTemplate>**  **<Representation** id=*"root\_video3"*  bandwidth=*"2282000"*  codecs=*"hvc1.2.4.L120.B0"*  width=*"1280"*  height=*"720"*  frameRate=*"30000/1001"***/>**  **<Representation** id=*"root\_video2"*  bandwidth=*"7088800"*  codecs=*"hvc1.2.4.L123.B0"*  width=*"1920"*  height=*"1080"*  frameRate=*"30000/1001"***/>**  **<Representation** id=*"root\_video1"*  bandwidth=*"7088800"*  codecs=*"hvc1.2.4.L123.B0"*  width=*"1920"*  height=*"1080"*  frameRate=*"60000/1001"***/>**  **</AdaptationSet>**  *<!-- UHD Adaptation Set (keyID: 100efe5e-247f-4a82-b4ed-cb159f8b7b20) -->*  **<AdaptationSet** id=*"2"*  contentType=*"video"*  mimeType=*"video/mp4"*  segmentAlignment=*"true"*  startWithSAP=*"1"***>**  **<ContentProtection** schemeIdUri=*"urn:mpeg:dash:mp4protection:2011"*  value=*"cenc"*  cenc:default\_KID=*"100efe5e-247f-4a82-b4ed-cb159f8b7b20"***/>**  **<ContentProtection** schemeIdUri=*"urn:uuid:afbcb50e-bf74-3d13-be8f-13930c783962"*  robustness=*"HW\_SECURE\_ALL"***>**  **<cenc:pssh>**...**</cenc:pssh>**  **</ContentProtection>**  **<ContentProtection** schemeIdUri=*"urn:uuid:9a04f079-9840-4286-ab92-e65be0885f95"*  value=*"MSPR 2.0"*  robustness=*"SL3000"***>**  **<cenc:pssh>**...**</cenc:pssh>**  **</ContentProtection>**  **<OutputProtection** schemeIdUri=*"urn:mpeg:dash:output-protection:hdcp:2020"* value=*"2.2"***/>**    *<!-- Can switch to SD or HD -->*  **<SupplementalProperty** schemeIdUri=*"urn:mpeg:dash:adaptation-set-switching:2016"*  value=*"0,1"***/>**  *<!-- HDCP Hints -->*  **<Role** schemeIdUri=*"urn:mpeg:dash:role:2011"*  value=*"main"***/>**      **<SegmentTemplate** initialization=*"$RepresentationID$/init.mp4"*  media=*"$RepresentationID$/$Time$.mp4"*  timescale=*"90000"*  startNumber=*"807170070"*  presentationTimeOffset=*"36403"***>**  **<SegmentTimeline>**  **<S** t=*"6002913283"*  d=*"180180"*  r=*"13"***/>**  **</SegmentTimeline>**  **</SegmentTemplate>**  **<Representation** id=*"root\_video1"*  bandwidth=*"14057200"*  codecs=*"hvc1.2.4.L153.B0"*  width=*"2560"*  height=*"1440"*  frameRate=*"60000/1001"***/>**  **<Representation** id=*"root\_video0"*  bandwidth=*"20575600"*  codecs=*"hvc1.2.4.L153.B0"*  width=*"3840"*  height=*"2160"*  frameRate=*"60000/1001"***/>**  **</AdaptationSet>**  *<!-- E-AC-3 Audio Primary lang (keyID: 55ff04db-d75a-dfb9-ef8a-6473ae9ac9c4) -->*  **<AdaptationSet** id=*"3"*  contentType=*"audio"*  mimeType=*"audio/mp4"*  lang=*"en"***>**  **<AudioChannelConfiguration** schemeIdUri=*"urn:mpeg:mpegB:cicp:ChannelConfiguration"*  value=*"6"***/>**  **<ContentProtection** schemeIdUri=*"urn:mpeg:dash:mp4protection:2011"*  value=*"cenc"*  cenc:default\_KID=*"55ff04db-d75a-dfb9-ef8a-6473ae9ac9c4"***/>**  **<ContentProtection** schemeIdUri=*"urn:uuid:afbcb50e-bf74-3d13-be8f-13930c783962"*  robustness=*"SW\_SECURE\_CRYPTO"***>**  **<cenc:pssh>**...**</cenc:pssh>**  **</ContentProtection>**  **<ContentProtection** schemeIdUri=*"urn:uuid:9a04f079-9840-4286-ab92-e65be0885f95"*  value=*"MSPR 2.0"*  robustness=*"SL2000"***>**  **<cenc:pssh>**...**</cenc:pssh>**  **</ContentProtection>**  **<Role** schemeIdUri=*"urn:mpeg:dash:role:2011"*  value=*"main"***/>**  **<SegmentTemplate** initialization=*"$RepresentationID$/init.mp4"*  media=*"$RepresentationID$/$Time$.mp4"*  timescale=*"90000"*  startNumber=*"807170070"*  presentationTimeOffset=*"36403"***>**  **<SegmentTimeline>**  **<S** t=*"6002915623"*  d=*"178560"*  r=*"0"***/>**  **<S** t=*"6003094183"*  d=*"181440"*  r=*"0"***/>**  **<S** t=*"6003275623"*  d=*"178560"*  r=*"0"***/>**  **<S** t=*"6003454183"*  d=*"181440"*  r=*"0"***/>**  **<S** t=*"6003635623"*  d=*"178560"*  r=*"0"***/>**  **<S** t=*"6003814183"*  d=*"181440"*  r=*"1"***/>**  **<S** t=*"6004177063"*  d=*"178560"*  r=*"0"***/>**  **<S** t=*"6004355623"*  d=*"181440"*  r=*"0"***/>**  **<S** t=*"6004537063"*  d=*"178560"*  r=*"0"***/>**  **<S** t=*"6004715623"*  d=*"181440"*  r=*"0"***/>**  **<S** t=*"6004897063"*  d=*"178560"*  r=*"0"***/>**  **<S** t=*"6005075623"*  d=*"181440"*  r=*"1"***/>**  **</SegmentTimeline>**  **</SegmentTemplate>**  **<Representation** id=*"root\_audio66"*  bandwidth=*"288000"*  codecs=*"ec-3"*  audioSamplingRate=*"48000"***/>**  **</AdaptationSet>**  *<!-- Same as previous audio -->*  **<AdaptationSet** id=*"4"*  contentType=*"audio"*  mimeType=*"audio/mp4"*  lang=*"en"***>**  **<AudioChannelConfiguration** schemeIdUri=*"urn:mpeg:mpegB:cicp:ChannelConfiguration"*  value=*"2"***/>**  **<ContentProtection** schemeIdUri=*"urn:mpeg:dash:mp4protection:2011"*  value=*"cenc"*  cenc:default\_KID=*"55ff04db-d75a-dfb9-ef8a-6473ae9ac9c4"***/>**  **<ContentProtection** schemeIdUri=*"urn:uuid:afbcb50e-bf74-3d13-be8f-13930c783962"*  robustness=*"SW\_SECURE\_CRYPTO"***>**  **<cenc:pssh>**...**</cenc:pssh>**  **</ContentProtection>**  **<ContentProtection** schemeIdUri=*"urn:uuid:9a04f079-9840-4286-ab92-e65be0885f95"*  value=*"MSPR 2.0"*  robustness=*"SL2000"***>**  **<cenc:pssh>**...**</cenc:pssh>**  **</ContentProtection>**  **<Role** schemeIdUri=*"urn:mpeg:dash:role:2011"*  value=*"main"***/>**  **<SegmentTemplate** initialization=*"$RepresentationID$/init.mp4"*  media=*"$RepresentationID$/$Time$.mp4"*  timescale=*"90000"*  startNumber=*"807170070"*  presentationTimeOffset=*"36403"***>**  **<SegmentTimeline>**  **<S** t=*"6002916699"*  d=*"180480"*  r=*"0"***/>**  **<S** t=*"6003097179"*  d=*"176640"*  r=*"0"***/>**  **<S** t=*"6003273819"*  d=*"180480"*  r=*"11"***/>**  **</SegmentTimeline>**  **</SegmentTemplate>**  **<Representation** id=*"root\_audio67"*  bandwidth=*"182400"*  codecs=*"mp4a.40.5"*  audioSamplingRate=*"24000"***/>**  **</AdaptationSet>**  *<!-- Same as previous audio -->*  **<AdaptationSet** id=*"5"*  contentType=*"audio"*  mimeType=*"audio/mp4"*  lang=*"en"***>**  **<AudioChannelConfiguration** schemeIdUri=*"urn:mpeg:mpegB:cicp:ChannelConfiguration"*  value=*"2"***/>**  **<ContentProtection** schemeIdUri=*"urn:mpeg:dash:mp4protection:2011"*  value=*"cenc"*  cenc:default\_KID=*"55ff04db-d75a-dfb9-ef8a-6473ae9ac9c4"***/>**  **<ContentProtection** schemeIdUri=*"urn:uuid:afbcb50e-bf74-3d13-be8f-13930c783962"*  robustness=*"SW\_SECURE\_CRYPTO"***>**  **<cenc:pssh>**...**</cenc:pssh>**  **</ContentProtection>**  **<ContentProtection** schemeIdUri=*"urn:uuid:9a04f079-9840-4286-ab92-e65be0885f95"*  value=*"MSPR 2.0"***>**  **<cenc:pssh>**...**</cenc:pssh>**  **</ContentProtection>**  **<Role** schemeIdUri=*"urn:mpeg:dash:role:2011"*  value=*"dub"***/>**  **<SegmentTemplate** initialization=*"$RepresentationID$/init.mp4"*  media=*"$RepresentationID$/$Time$.mp4"*  timescale=*"90000"*  startNumber=*"807170070"*  presentationTimeOffset=*"36403"***>**  **<SegmentTimeline>**  **<S** t=*"6002915623"*  d=*"178560"*  r=*"0"***/>**  **<S** t=*"6003094183"*  d=*"181440"*  r=*"0"***/>**  **<S** t=*"6003275623"*  d=*"178560"*  r=*"0"***/>**  **<S** t=*"6003454183"*  d=*"181440"*  r=*"0"***/>**  **<S** t=*"6003635623"*  d=*"178560"*  r=*"0"***/>**  **<S** t=*"6003814183"*  d=*"181440"*  r=*"1"***/>**  **<S** t=*"6004177063"*  d=*"178560"*  r=*"0"***/>**  **<S** t=*"6004355623"*  d=*"181440"*  r=*"0"***/>**  **<S** t=*"6004537063"*  d=*"178560"*  r=*"0"***/>**  **<S** t=*"6004715623"*  d=*"181440"*  r=*"0"***/>**  **<S** t=*"6004897063"*  d=*"178560"*  r=*"0"***/>**  **<S** t=*"6005075623"*  d=*"181440"*  r=*"1"***/>** 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