ATSC Standard: A/331:2019 Amendment No. 7, DRM System ID

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Advanced Television Systems Committee
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Revision History

Version	Date
Amendment approved	3 January 2020

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1. OVERVIEW

1.1 Definition

An Amendment is generated to document an enhancement, an addition or a deletion of functionality to previously agreed technical provisions in an existing ATSC document. Amendments shall be published as attachments to the original ATSC document. Distribution by ATSC of existing documents shall include any approved Amendments.

1.2 Scope

This document enables the signaling of zero or more DRM systems required to decode a service.

1.3 Rationale for Changes

When SLT.Service@protected="true", it is useful to signal the supported DRM system(s), one of which will be needed in the decoder to decode the service. This allows faster DRM and CDM setup time and thus faster service acquisition.

1.4 Backwards compatibility

This design is backwards compatible since it is optional and is a performance improvement.

2. LIST OF CHANGES

Change instructions are given below in *italics*. Unless otherwise noted, inserted text, tables, and drawings are shown in blue; deletions of existing text are shown in ~~red strikeout~~. The text "[ref]" indicates that a cross reference to a cited referenced document should be inserted.

Modify 6.3.1 as follows:

6.3.1 SLT Syntax Description

While the indicated XML schema specifies the normative syntax of the **SLT** element, informative Table 6.2 below describes the structure of the **SLT** element in a more illustrative way. The specifications following the table give the semantics of the elements and attributes.

Table 6.1 SLT XML Format

Element or Attribute Name	Use	Data Type	Short Description
SLT			Root element of the SLT
@bsid	1	slt:listOfUnsignedShort	Identifies the one or more Broadcast Streams comprising the Services.
SLTCapabilities	0..1	sa:CapabilitiesType	Required capabilities for decoding and meaningfully presenting the content for all the services in this SLT instance.
SLTInetUrl	0..N	anyURI	Base URL to acquire ESG or service layer signalling files available via broadband for services in this SLT.
@urlType	1	unsignedByte	Type of files available with this URL
Service	1..N		Service information

Element or Attribute Name	Use	Data Type	Short Description
@serviceId	1	unsignedShort	Integer number that identifies this Service within the scope of this Broadcast area.
@globalServiceID	0..1	anyURI	A globally unique URI that identifies the ATSC 3.0 Service. This attribute is not present for the ESG,EAS and DRM Data services.
@sltSvcSeqNum	1	unsignedByte	Version of SLT service info for this service.
@protected	0..1	boolean	Indicates whether one or more components needed for meaningful presentation of this service are protected (e.g. encrypted).
@majorChannelNo	0..1	unsignedShort 1..999	Major channel number of the service
@minorChannelNo	0..1	unsignedShort 1..999	Minor channel number of the service
@serviceCategory	1	unsignedByte	Service category, coded per Table 6.4
@shortServiceName	0..1	string	Short name of the Service
@hidden	0..1	boolean	Indicates whether the service is intended for testing or proprietary use, and is not to be selected by ordinary TV receivers.
@broadbandAccessRequired	0..1	boolean	Indicates whether broadband access is required for a receiver to make a meaningful presentation of the service.
@essential	0..1	boolean	Indicates if the essential portion of the Service is delivered via this Broadcast Stream.
@drmSystemID	0..1	listOfanyURI	~~For @serviceCategory=6 (DRM Data service),~~ Specifies the DRM System ID(s) ~~of a specific DRM system delivered as part of~~ related to this service.

…

Modify 6.3.2 as follows:

6.3.2 SLT Semantics

The following text specifies the semantics of the elements and attributes in the SLT.

…

@drmSystemID – ~~This xs:anyURI attribute shall be present when~~ This attribute identifies one or more DRM systems related to this service as a space-separated list of xs:anyURI. When @serviceCategory is “6” (DRM Data Service), this attribute is required and shall contain a single URI. ~~This element carries long term key license information relative to a specific DRM system.~~ This attribute shall be set to a URI~~N~~ identifying the DRM system ID associated with this DRM Data Service. The URI~~N~~ shall contain a UUID formatted as a URN, the same as the value of the @schemeIdUri used for the DASH MPD ContentProtection Descriptor, per Section 7.5 of DASH-IF [12]. The "urn:uuid:" prefix shall be included. More than one DRM Data Service may appear in a given SLT. The same value in the @drmSystemID attribute may be included in multiple instances of a Service identified as an DRM Data Service. When @serviceCategory is other than “6”, this attribute is optional. When present, it shall contain one or more URIs. These URIs have the same syntax and semantics as for @serviceCategory=“6” except that they identify one or more DRM systems that can decode the service. Receivers can, in advance of an MPD, initialize a supported DRM system. Receivers not supporting any of the DRM systems listed can choose not to offer the service to the viewer.

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