EMA Content Availability and Offer Status Data (Avails and Title List)

CONTENTS

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REVISION HISTORY

Version	Date	Description
1.0	January 3, 2013	Original Version
1.4	December 1, 2013	Updated to sync with EMA Avails Excel template v1.4. Added closed caption annotation for United States.
1.6	September 29, 2014	Update to • Support television and complex asset structures • Allow the specification of any number of terms • Increase flexibility of terms than can specified, including holdbacks • Provide identifier linkage to Media Manifest • Incorporate field changes from Excel Avails v1.5 and v1.6 • Clarifications, corrections and editorial improvements
1.6B	October 15, 2014	Added CompanyDisplayCredit
2.0	June 12, 2015	Improved miniseries support Improved handling of open start/end dates and rolling time zones. Added Season and series status (cancellation) Simplified identifiers Added provisions for shared entitlement systems (e.g., DMA, UltraViolet) Added digital signature option
2.0a	July 1, 2015	Corrections in metadata to align with schema.
2.1	October 13, 2015	EIDR • Updated EIDR references to use URN form. • Removed incorrect EIDR references. Fixed RunLength cardinality in schema.
2.2, 2.2.1	November 15, 2016	Added @updateNum, @updateDeliveryType, and @workflow (same definitions as Media Manifest) Co-release with Excel Avails v1.7 Added support for Bundles (BundledAsset)

		FormatProfile: Added UHD profile; and added HDR, WCG and HFR attributes Revised language handling: Replaced StoreLanguage, with AssetLanguage, replaced HoldbackExclusionLanuage with AllowedLanguages, added HoldbackLanguage include asset type attribute, removed Holdback Terms. Simplified LIcenseRightsDescription to “Next Day TV” and “POD” (Publish on Delivery). Added Region term type. Pricing: Added DMRP, SMRP, Bundled (not sold separately) and LicenseFee terms. Added ReportingID for future use. Added ability to list depreciated EcosystemIDs Clarified date terms. Added ESTStart as an EndCondition Made optional: • TitleDisplayUnlimited, SeasonTitleDisplayUnlimited and SeriesTitleDisplayUnlimited • Terms/Description Fixed ratings cardinality in spec (was correct in schema) Added support for separately availed supplemental and promotion including AvailType values and Transaction/RefALID. Note that supplemental and promotion can also be included in an Avail through Asset instances. Added USACaptionsExceptionsReason, ReleaseHistory and Ratings to Series and Season metadata. This is used when a series (miniseries) or season are avail’d and this information is needed. 2.2.1 uses Common Metadata and MEC v2.5.
2.3	December 14, 2017	References Common Metadata and MEC v2.6. Added *Pre-release* LicenseType Added indications in AssetLanguage that metadata and/or tracks will be provided in that language. Multiple instances of TitleInternalAlias allowed for different regions (also for Multiple instances of TitleDisplayUnlimited allowed for different languages (also for Season and Series) Added @lag to StartCondition and EndCondition to allow time shift.

		Added WindowDuration as the maximum duration of the window. Clarified definition of duration. Added People in metadata to facilitate title matching and QC. Added GroupingEntity to metadata to indicate channel. Added terms for contract status, download, exclusivity and branding Added Licensee to Transaction
2.4	March 15, 2019	Added time zone examples. Clarified what Type value to use in GroupingEntity when translating to/from Excel. Added sequence to BundledALIDs. Added Support for Volumes Clarified AssetLanguage, added @assetProvidedDate Changed ContractStatus term to TitleStatus to match Excel v1.7.3. Added 'Number' term type Added Bonus, StoreType, PackageLabel terms
2.5		Added Offer Status for status reporting Added support for ALID reconciliation Added new EntryType values to support other workflows (especially API) Volume refinements Advanced Promotions/Conditional TPRs Improvements for Reliability Minor corrections and editorial improvements Added TPRType and CampaignID terms (matches Excel)

1 INTRODUCTION

'Avails' is an industry term for business information regarding the availability of assets to be offered. It includes information such as region of available, times of available and business terms.

This document defines Avails and Title List, also referred to as "EMA Avails" as this activity originated with the Entertainment Merchant's Association (EMA).

Avails and Title List includes encoding for Avails and Title List data in both spreadsheet form and in XML form. Although spreadsheets may serve an interim purpose, migration to XML is encouraged.

XML Avails and Title List builds upon Media Entertainment Core (MEC) Metadata, and Common Metadata. Related specs can be found at www.movielabs.com/md.

1.1 Document Organization

This document is organized as follows:

1. Introduction—Provides background, scope and conventions
2. Avails—The definition of Avails and Title List data. This includes encoding information that applies to both spreadsheets and XML; and the XML definition.
3. Signed Avails – Rules for digitally signing.
4. Offer Status – The definition of Avail and Title List Status.

1.2 Document Notation and Conventions

1.2.1 XML Conventions

XML is used extensively in this document to describe data. It does not necessarily imply that actual data exchanged will be in XML. For example, JSON may be used equivalently.

This document uses tables to define XML structure. These tables may combine multiple elements and attributes in a single table. Although this does not align with schema structure, it is much more readable and hence easier to review and to implement.

Although the tables are less exact than XSD, the tables should not conflict with the schema. Such contradictions should be noted as errors and corrected.

1.2.1.1 Naming Conventions

This section describes naming conventions for Common Metadata XML attributes, element and other named entities. The conventions are as follows:

- Names use initial caps, as in InitialCaps.
- Elements begin with a capital letter, as in InitialCapitalElement.
- Attributes begin with a lowercase letter, as in initiaLowercaseAttribute.

- XML structures are formatted as Courier New, such as `md:rightstoken`
- Names of both simple and complex types are followed with "-type"

1.2.1.2 Structure of Element Table

Each section begins with an information introduction. For example, "The Bin Element describes the unique case information assigned to the notice."

This is followed by a table with the following structure.

The headings are

- Element—the name of the element or type
- Attribute—the name of the attribute
- Definition—a descriptive definition. The definition may define conditions of usage or other constraints
- Value—the format of the attribute or element. Value may be an XML type (e.g., "string") or a reference to another element description (e.g., "See Bar Element"). Annotations for limits or enumerations may be included (e.g.," int [0..100]" to indicate an XML xs:int type with an accepted range from 1 to 100 inclusively).
- Card—cardinality of the element. If blank, then it is 1. Other typical values are 0..1 (optional), 1..n and 0..n.

The first row of the table after the header is the element being defined. This is immediately followed by attributes of this element, if any. Subsequent rows are child elements and their attributes. All child elements (i.e., those that are direct descendents) are included in the table. Simple child elements may be fully defined here (e.g., "Title", " ", "Title of work", "xs:string"), or described fully elsewhere ("POC", " ", "Person to contact in case there is a problem", "md:ContactInfo-type"). In this example, if POC was to be defined by a complex type defined as md:ContactInfo-type. Attributes immediately follow the containing element.

Accompanying the table is as much normative explanation as appropriate to fully define the element, and potentially examples for clarity. Examples and other informative descriptive text may follow. XML examples are included toward the end of the document and the referenced web sites.

1.2.2 General Notes

All required elements and attributes must be included.

When enumerations are provided in the form 'enumeration', the quotation marks ('') should not be included.

1.3 Normative References

[CM]	TR-META-CM MovieLabs Common Metadata, version 2.7, http://www.movielabs.com/md/md
[CR]	TR-META-CM, MovieLabs Common Metadata Ratings, most current version, http://www.movielabs.com/md/ratings
[Manifest]	TR-META-MMM, MovieLabs Common Media Manifest Metadata, version 1.8. http://www.movielabs.com/md/manifest
[MEC]	Media Entertainment Core Metadata, version 2.7, http://www.movielabs.com/md/mec
[RFC2141]	R. Moats, *RFC 2141, URN Syntax*, May 1997, http://www.ietf.org/rfc/rfc2141.txt
[RFC3629]	Yergeau, F., et al, *RFC 3629, UTF-8, a transformation format of ISO 10646*, November, 2003. http://www.ietf.org/rfc/rfc3629.txt
[RFC3986]	Berners-Lee, T., et al, RFC 3986, Uniform Resource Identifier (URI): Generic Syntax, January 2005, http://www.ietf.org/rfc/rfc3986.txt
[RFC5646]	Philips, A, et al, *RFC 5646, Tags for Identifying Languages*, IETF, September, 2009. http://www.ietf.org/rfc/rfc5646.txt
[RFC7302]	Lemieux, P, RFC 7302, Entertainment Identifier Registry (EIDR) URN Namespace Definition, http://www.ietf.org/rfc/rfc7302.txt
[IANA-LANG]	IANA Language Subtag Registry. http://www.iana.org/assignments/language-subtag-registry
[ISO3166-1]	Codes for the representation of names of countries and their subdivisions -- Part 1: Country codes, 2007.
[ISO3166-2]	ISO 3166-2:2007Codes for the representation of names of countries and their subdivisions -- Part 2: Country subdivision code
[ISO4217]	Currency shall be encoded using ISO 4217 Alphabetic Code. http://www.iso.org/iso/currency_codes_list-1
[ISO8601]	ISO 8601:2000 Second Edition, *Representation of dates and times, second edition*, 2000-12-15.
[CEA766]	ANSI/CEA-766-C, U.S. and Canadian Rating Region Tables (RRT) and Content Advisory Descriptors for Transport of Content Advisory Information Using ATSC Program and System Information Protocol (PSIP). April 2008.[XMLC1.1] *Canonical XML Version 1.1*, W3C Recommendation 2 May 2008, http://www.w3.org/TR/xml-c14n11/

[XML] "XML Schema Part 1: Structures", Henry S. Thompson, David Beech, Murray Maloney, Noah Mendelsohn, W3C Recommendation 28 October 2004, http://www.w3.org/TR/xmlschema-1/ and "XML Schema Part 2: Datatypes", Paul Biron and Ashok Malhotra, W3C Recommendation 28 October 2004, http://www.w3.org/TR/xmlschema-2/

[XMLDSIG] *XML Signature Syntax and Processing (Second Edition)*, http://www.w3.org/TR/xml-c14n11/, June 2008, http://www.w3.org/TR/2008/REC-xmldsig-core-20080610/

1.4 Informative References

[BP-Identifiers] Best Practice for Constructing Identifiers, http://www.movielabs.com/md/practices/#id

[RFC4647] Philips, A., et al, *RFC 4647, Matching of Language Tags*, September 2006. http://www.ietf.org/rfc/rfc4647.txt

European Broadcast Union, Tech 3295 – P_META Metadata Library, http://www.ebu.ch/en/technical/metadata/specifications/notes_on_tech3295.php

1.5 XML Namespaces

This document refers to the following XML namespaces:

- md: Common Metadata corresponding with Common Metadata.
- mdmec: Media Entertainment Core Metadata. Note that mdmec: references md: schemas
- avails: includes Avails data. Note that avails: references md: and mdmec: schemas

1.6 Identifiers

Identifiers must be universally unique. Recommended identifier schemes may be found in Common Metadata and in and in Best Practice for Constructing Identifiers [BP-Identifiers].

1.7 Status

This specification has been implemented. As requirements evolve, we anticipate that the identification of additional use cases will motivate changes. Implementers should anticipate future revisions. Reasonable measures will be taken to ensure changes are backwards compatible.

1.8 Date, Time and Duration encoding

Dates and times are sometimes expressed as an absolute time (2:00AM PST) and sometimes relative to the local time zone (12:00AM local time). In the case of Avail start and end, the former would reflect a worldwide start/end time and the latter would represent start/end times rolling with the local time (e.g., 12:00AM EDT in the EDT time zone, 12:00AM CDT in the CDT time zone, etc.).

Absolute times are indicated with the use of a time zone. Even though the time is specified for a given region, it is a fixed time worldwide. When specifying times worldwide, it is recommended that UTC be used (encoded with 'Z'). For example,

```
<start>2015-03-12T04:25:00Z</start>    (preferred format with UTC)
<end>2015-04-24T17:00:00-08:00</end>   (less preferred format)
```

Times relative to a time zone should be expressed without a time zone. For example,

```
<start>2015-03-12T04:25:00</start>
<end>2015-04-24T17:00:00</end>
```

In some instances, in lieu of a date or time, a condition can be specified (e.g., StartCondition and EndCondition). Conditions specify the status of the date or time without necessarily defining a date or time. Encoding for condition elements are as follows

- 'Open' – The date is not currently known.
    - If used in the context of a start date, the date is considered unknown and no date match will be satisfied.
    - If used in the context of an end date, the end date is considered infinitely in the future. Any date after a valid start date would be considered a match.
- 'Immediate' – Date applies immediately, as if date were right now.
    - If in the context of start date, action can be taken immediately
    - If in the context of end date, action should stop as soon as possible.
- 'ESTStart' – End Date is the StartDate of the EST offering.
    - Only applies to EndCondition
    - There must exist a Transaction instance with LicenseType='EST' in identical territories.
- 'EST' – EST Street date
- 'Broadcast' – Broadcast date (e.g., individual episode).
- 'Completed' – Date of airing of completed season (i.e., following last episode). Only applies to episodic.
- 'Theatrical' – Theatrical release date

- 'TBD' – For use only in Status, TBD means "To Be Determined"

A title can be availed before start date is known by setting StartCondition='Open'. This is not a valid avail in the sense that the title cannot be offered until an actual date is provided. An example of this usage is providing an avail for an episode before it is aired (i.e., air date is not known). If a title is availed, but the end date of the avail is not known, EndCondition='Open' is used. An example of this usage is a pre-order avail when street date is not known.

In accordance with xs:duration syntax, durations are expressed in ISO 8601 [ISO8601] format. Duration is calculated in accordance with XML definition in [XML] Appendix E. This calculation accounts for all edge cases including different length months and leap years.

Following are some annotated examples of time zone mistakes. These examples assume the intended time is 2018-02-15T00:00:00-05:00.

- 2018-02-15T00:00:00-05 is invalid as W3C requires timezone offset as hours are missing. Expected time zone format must be 'hh:mm'
- 2018-02-15T00:00-05:00 is invalid due to time not having all 3 fields (i.e., hh:mm:ss)
- 2018-02-15T24:00:00-05 represents the end of the day (i.e., 24 hours later)
- 2018-02-14T24:00:00-05:00 is correct, but is an awkward presentation and should not be used

2 AVAIL INFORMATION

The top level element for Avails are `Avail` and `AvailList`. The top-level XML type for Avails are `Avail-type` and `AvailList-type`.

2.1 Avail List

An Avail List contains on or more Avials.

Element	Attribute	Definition	Value	Card.
AvailList		Element for an Avail List	avails:AvailList-type	

Element	Attribute	Definition	Value	Card.
AvailList-type				
Avail		An Avail	avails:Avail-type	1..n

2.2 Avail

The Avail element is defined as follows:

Element	Attribute	Definition	Value	Card.
Avail		Element continuing a single Avail	avail:Avail-type	

The Avail-type complex type is defined as follows:

Element	Attribute	Definition	Value	Card.
Avail-type				
	updateNum, workflow, etc.	As defined in Common Metadata [CM], Section 3.15, Workflow Attribute Group.	md:workflow-attr	
Compatibility		Version information for determining compatibility.	md:Compatibility-type	0..1
ALID		Logical Asset Identifier. The ALID identifies the set of content contained within the Avail.	md:AssetLogicalID-type	

AssociatedALID		An ALID associated with this offering; such as, an ALID that was formerly used for this offer.	md:AssetLogicalID-type	0..n
	relationship	Relationship between this ALID and the offer.	xs:string	0..1
Disposition		Information about the Avails message such as whether it is a new Avail or if it replaces a previous Avail message.	avails:AvailDisposition-type	
Licensor		The entity issuing the Avail	mdmec:Publisher-type	
ServiceProvider		Entity that will deliver assets associated with the Avail. This is typically a post-production organization.	mdmec:Publisher-type	0..1
Licensee		Entity that is the intended audience for the Avail.	mdmec:Publisher-type	0..1
AvailType		Defines the asset structure of this avail. (see below)	xs:string	
ShortDescription		A short description of the Avail. This is optional but strongly recommended.	xs:string	0..1
Asset		Each instance defines an asset subject to the Avail instructions	avails:AvailAsset-type	1..n
Transaction		Each instance includes transaction information regarding the Avail	avails:AvailTrans-type	1..n
CoreMetadata		Media Entertainment Core (MEC) if available.	mdmec:CoreMetadata-type	0..1
SharedEntitlement		Information about Shared Entitlement systems such as Disney Movies Anywhere and UltraViolet. One instance per system.	avails:AvailSharedEntitlement-type	0..n
ExceptionsFlag		In indicator from the studio to the retailer that his avail should be reviewed in some manner before being published by the retailer. If present, it shall be set to 'true'. If absent, it is assumed to be 'false'	xs:boolean	0..1

AssociatedALID/@relationship describes the relationship between the ALID and the offer. There is currently no controlled vocabulary for this attribute. Relationship could be that the

ALID was formerly used by mistake and has since been corrected. Or, ownership might have shifted from another content owner and this ALID was used by that owner.

AvailType defines the asset structure of the avail. This is how the studio differentiates between offering a single title (e.g., an episode) from multiple titles (e.g., a season). This type also support additional content such as a movie offered with extras.

AvailType shall have one of the following values. Note that WorkType is defined in Section 2.2.2.

- 'single' – A single non-episodic asset. This is used for a WorkType such as 'Movie'.
    - Shall include exactly one Avail/Asset element where Asset/WorkType corresponds with work types associated with single assets (i.e., work types such as 'movie' or 'short', but not work types such as 'series' or 'Collection').
- 'episode' – A single episodic asset (i.e., an episode).
    - There shall be a single Avail/Asset element where Asset/WorkType= 'Episode'.
- 'season' – A single season consisting of multiple episodes. A season may be availed even though the number of episodes is unknown (e.g., prior to airing).
    - Shall include exactly one Avail/Asset element where Asset/WorkType= 'Season'.
    - Note that with a 'season' asset, Asset instances are not provided for individual episodes.
- 'series' – A single series consisting of two or more seasons. If only one season is offered, AvailType='season' or AvailType='miniseries' should be used.
    - Shall include exactly one Avail/Asset element where Asset/WorkType= 'Series'.
    - Note that with a 'series' asset, Asset instances are not provided for individual seasons or episodes.
- 'volume' – A volume of a series. A volume is two or more consecutive episodes from the same season.
- 'miniseries' – A single series consisting of two or more episodes. If only one episode is offered, AvailType='episode' should be used. Note that if the title was expected to have multiple seasons (i.e, either cancelled after one or more anticipated), 'season' should be used.
    - Shall include exactly one Avail/Asset element where
        - Asset/WorkType= 'Series'.

- Asset/SeriesMetadata/NumberOfSeasons, if included, shall be interpreted as number of episodes.

- 'collection' – Any collection of two or more assets.
  - Shall include an Avail/Asset element for each asset.
- 'bundle' – One or more assets defined in other Avails.
  - Shall include exactly one instance of Avail/Asset where
    - Asset/WorkType = 'Collection'
    - Asset/@contentID shall be a Content ID created for this Bundle.
    - Asset/Metadata element describes the bundle. Note that metadata is required for offering a Bundle.
    - An instance of BundleAsset exists for each bundled asset
      - Note: Some implementations may allow ALIDs in BundleAsset to reference other Bundles.
- 'supplement' – One or more supplemental (i.e., bonus, extra, VAM) assets are offered.
  - Shall include an Asset element for each supplemental object where
    - Asset/WorkType = 'Supplemental'
    - Asset/Metadata is allowed
    - Asset/Episode is allowed. Asset/Episode should only be used when episodic ordering is required (e.g., supplemental goes between two episodes). It is preferable to reference the episode with the understanding bonus will follow the episode.
  - A Transaction/ReferencedALID shall exist containing the ALID of the supplemented offer.
- 'promotion' – One or more promoted assets.
  - Shall include an Asset element for each promotion asset where Asset/WorkType = 'Promotion'
  - A Transaction/ReferencedALID shall exist containing the ALID of the promoted offer.

In addition to the above requirements, any Avail may have additional Asset elements for additional material with WorkType of 'Ad', 'Album', 'Excerpt', 'Music Video', 'Promotion', 'Song' or 'Supplemental'.

Note that for AvailTypes that intrinsically included subordinate assets (e.g., episodes within seasons, or episodes within mini-series, or seasons within series), do not include the subordinate assets as Asset instances.

2.2.1 AvailDisposition-type

Disposition instructs the recipient had to process the Avail in the context of previously sent Avails. The *scope* of the disposition is the combination ALID, Licensor and regions. 'Full Extract' creates Avails, of if they exist replaces all Avails with the same ALID, Licensor and regions. Note that if Avails in a particular region and the Full Extract does not cover that region, then Avails will not be changed for that region—another Full Extra is required to update or a Delete to remove it.

Element	Attribute	Definition	Value	Card.
AvailDisposition-type				
EntryType		Indication of whether this Avail is new, update or deletion.	xs:string	
IssueDate		Date this Avail was issued. If necessary, recipients can use IssueDate to reconstruct the order of issuance. Although this may be xs:gYear only or xs:date, it is strongly recommended that the xs:dateTime form be used.	md:YearDateOrTime-type	0..1
<any>		Any other element	any ##other	0..n

EntryType shall have one of the following values:

- "Full Delete" – Deletes all Avails with the same scope.
- "Full Extract" – Avails in this instance will replace all other Avails with the same scope.
- 'Create' – Create new record
- 'Update' – Update existing record
- 'Delete' – Delete existing record.

2.2.2 AvailAsset-type

Element	Attribute	Definition	Value	Card.
AvailAsset-type				
	contentID	Asset Identifier. This should be an EIDR.	md:ContentID-type	

WorkType		Work type as enumerated in Common Metadata.	xs:string	
WorkTypeDetail		WorkTypeDetail as enumerated in Common Metadata	xs:string	0..1
Metadata		Metadata describing Asset	avails:AvailUnitMetadata-type	Choice (see Avail-type)
EpisodeMetadata		Metadata to describe an instance of an episode.	avails:AvailEpisodeMetadata-type	
SeasonMetadata		Metadata to describe a season of episodes.	avails:AvailSeasonMetadata-type	
SeriesMetadata		Additional metadata describing series information, such as seasons and series. This shall only be included if the asset is part of a series (e.g., an episode)	avails:AvailSeriesMetadata-type	
BundledAsset		Information about a bundled asset. The entire asset is included by reference. Only one Asset element should be included if BundledAsset is present.	avails:AvailBundledAsset-type	0..n
<any>		Used for asset description extensions	any ##other	0..n

The appropriate choice of metadata object is as follows:

Metadata Object	**WorkType**
Metadata	Anything other than Episode, Season or Series (e.g., Movie, Short, Non-episodic show, Supplemental, Promotion and Ad).
EpisodeMetadata	Episode
SeasonMetadata	Season
SeriesMetadata	Series (including mini-series)

2.2.2.1 AvailMetadata-type

This type is used for single asset work types. It is also the base for other metadata objects.

Element	Attribute	Definition	Value	Card.
AvailMetadata-type				
TitileDisplayUnlimited		Display title, no length limit. Same as TitleDisplayUnlimited in Common Metadata [CM].	xs:string	0..1
	language	Language of TitleDisplayUnlimited, encoded in accordance with [CM], Section 3.1.	xs:language	0..1
TitleInternalAlias		Title used by involved parties to refer to this content.	xs:string	1..n
	region	If present, represents [ISO3166-1] or [ISO3166-2] region where TitleInternalAlias instance applies. If absent, TitleInternalAlias applies to all regions.	xs:string	0..1
EditEIDR-URN		Edit (Performance-Level) EIDR identifier using URN syntax as per [RFC7302]	xs:anyURI	0..1
TitleEIDR-URN		Title Abstraction-Level EIDR identifier using URN syntax as per [RFC7302]	xs:anyURI	0..1
AltIdentifier		Other identifiers referring to the same asset. Same as AltIdentifier in CommonMetadata.	md:ContentIdentifier-type	0..n
	scope	Indicates the scope of the AltIdentifier	xs:string	0..1
VersionDescription		A brief description of the version.	xs:string	0..1
ReleaseDate		Release date of title in earliest territory. This is highly recommended to disambiguate different works with the same title (e.g., Footloose 1984 vs. 2011). Can express year, year and month or release date.	Union(xs:gYear, xs:gYearMonth, xs:date)	0..1
RunLength		Total run time. Same as RunLength in Common Metadata.	xs:duration	0..1
People		People associated with title.	md:BasicMetadataPeople-type	0..n
ReleaseHistory		History of release such as air dates or DVD release information. Defined in Common Metadata, 4.1.1.	md:ReleaseHistory-type	0..n

USACaptionsExemption Reason		Caption information for United States distribution. If captions are not required this element should be populated with a value defined below.	xs:positiveInteger	0..1
Ratings		Content Ratings. Ratings from should comply with Common Ratings [CR].	md:ContentRatings-type	0..1
EncodeID		EIDR identifying encoding (manifestation)	md:id-type	0..1
LocalizationOffering		Distinguishes products that are offered based on whether the offering is localized with dubbed audio track or a language subtitle track. Titles must have these components when offered to the consumer.	xs:string	0..1
GroupingEntity		Grouping Entity, such as channel, associated with Avail. When translating to/from Excel, Type="Channel"	md:GroupingEntity-type	0..n
<any>		Any other element	any ##other	0..n

The @scope attribute is encoded as follows

- 'Title' – equivalent to an Abstraction (title) level EIDR ('level 1')
- 'Edit' – equivalent to a Performance (edit) level EIDR ('level 2')
- 'Manifestation' – equivalent to an EIDR manifestation ('level 3')

USACaptions is required for Avails whose Territory is the United States.

CaptionExemptionReason shall hold one of the following values

- '1' – This content has never aired on television in the U.S.
- '2' – This content has only aired on television in the U.S. without captions.
- '3' – This content has not aired on U.S. television with captions since Sept. 30, 2012
- '4' – This content does not consist of full-length video programming.
- '5' – This content does not fall within a category of online programming that currently requires captions under FCC regulations (49 C.F.R. § 79.4(b)).
- '6' – The FCC and/or U.S. Congress has granted an exemption from captioning requirements for this content.

LocalizationOffering shall, if present, hold one of the following values:

- 'sub' – offering must include subtitles
- 'dub' – offering must include dubbed audio
- 'subdub' – offering must include both subtitles and dubbed audio.

- 'any' – offering can have any combination of subtitles and dubbed audio (whatever is available)

'any' is the default and is assumed if this term is not included.

2.2.2.2 AvailUnitMetadata-type

This metadata object is used for content that is a standalone title (e.g., a movie).

Element	Attribute	Definition	Value	Card.
AvailUnitMetadata-type		Episode metadata. Base object is extended.	Avail:AvailMetadata-type (by extension)	
CompanyDisplayCredit		Information about grouping content into storefronts based on organizations such as studio or broadcaster. Equivalent to ComapnyDisplayCredits in Media Entertainment Core (MEC).	md:CompanyCredits-type	0..n

2.2.2.3 AvailEpisodeMetadata-type

This metadata object is used when the Avail's asset is an episode. This applies to any episodic material, such as TV episodes and mini-series episodes.

Note that the episode optionally includes the season which in turn optionally includes the series. This provides a complete definition of the episode.

Element	Attribute	Definition	Value	Card.
AvailEpisodeMetadata-type		Episode metadata. Base object is extended.	avail:AvailMetadata-type (by extension)	
EpisodeNumber		Episode number as defined in Common Metadata. Parties should agree upon which numbering scheme to use.	md:ContentSequenceInfo-type	
SeasonMetadata		Metadata for the season in which the episode exists	avail:AvailSeasonMetadata-type	(choice)
SeriesMetadata		Metadata for a series in which the episode exists. This only used for episodes that not part of season; for example, mini-series.	avail:AvailSeriesMetadata-type	

2.2.2.4 AvailSeasonMetadata-type

This metadata object is used for a single season.

Element	Attribute	Definition	Value	Card.
AvailSeasonMetadata-type				
SeasonContentID		The identifier for this season, preferably an EIDR.	md:id-type	
SeasonEIDR-URN		Season Abstraction-Level EIDR identifier using URN syntax as per [RFC7302]	xs::anyURI	0..1
SeasonTitleDisplayUnlimited		Title for season. Same as Common Metadata TitleDisplayUnlimited for WorkType 'Season.	xs:string	0..1
	language	Language of SeasonTitleDisplayUnlimited, encoded in accordance with [CM], Section 3.1.	xs:language	0..1
SeasonTitleInternalAlias		Title used by involved parties to refer to this season.	xs:string	0..n
	region	If present, represents [ISO3166-1] or [ISO3166-2] region where SeasonTitleInternalAlias instance applies. If absent, SeasonTitleInternalAlias applies to all regions.	xs:string	0..1
SeasonNumber		Season number as defined in Common Metadata. Parties should agree upon which numbering scheme to use.	md:ContentSequenceInfo-type	
VersionDescription		A brief description of the version.	xs:string	0..1

ReleaseDate		Release date of title in earliest territory. This is highly recommended to disambiguate different works with the same title (e.g., Footloose 1984 vs. 2011). Can express year, year and month or release date.	Union(xs:gYear, xs:gYearMonth, xs:date)	0..1
ReleaseHistory		History of release such as air dates or DVD release information. Defined in Common Metadata, 4.1.1.	md:ReleaseHistory-type	0..n
USACaptionsExemptionReason		Caption information for United States distribution. If captions are not required, this element should be populated with a value defined below.	xs:positiveInteger	0..1
Ratings		Content Ratings. Ratings from should comply with Common Ratings [CR].	md:ContentRatings-type	0..1
SeasonAltIdentifier		Other identifiers for the season.	md:ContentIdentifier-type	0..n
NumberOfEpisodes		Number of episodes in this season. Omit if number of episodes is unknown.	xs:positiveInteger	0..1
	estimate	Indicates the number of episodes is estimated, particularly when a season is offered prior to the season being completely aired. If present, it must be 'true'. If 'true' then NumberOfEpisodes is an estimate.	xs:boolean	0..1
SeasonStatus		Indicates the current status of the season (see below). If absent, season is assumed to either completed or in the process of being distributed/aired.	xs:string	0..1
SeriesMetadata		Metadata about the series that includes this season.	Avails:AvailSeriesMetadata-type	

For the purposes of counting episodes, an episode is a single video. This could be a single episode, double-episode or any other packaging. Bonus material should be handled as separate asset and not counted as an episode.

SeasonStatus is encoded as following

- 'Partial – Series was terminated mid-season. If still airing new episodes, NumberOfEpisodes is the anticipated number of episodes that will be completed.

2.2.2.5 AvailSeriesMetadata-type

This metadata object is used for a full series (multiple episodes).

Element	Attribute	Definition	Value	Card.
AvailSeriesMetadata-type				
SeriesContentID		Identifier for Series. Preferably an EIDR.	md:id-type	
SeriesEIDR-URN		Series Abstraction-Level EIDR identifier using URN syntax as per [RFC7302].	xs:anyURI	0..1
SeriesTitleDisplayUnlimited		Title for series. Same as Common Metadata TitleDisplayUnlimited for WorkType 'Series.	xs:string	0..1
	language	Language of SeriesTitleDisplayUnlimited, encoded in accordance with [CM], Section 3.1.	xs:language	0..1
SeriesTitleInternalAlias		Title for series in language mutually agreed upon by sender and receiver. Same as Core Metadata TitleInternalAlias	xs:string	
	region	If present, represents [ISO3166-1] or [ISO3166-2] region where SeriesTitleInternalAlias instance applies. If absent, SeriesTitleInternalAlias applies to all regions.	xs:string	0..1
LocalSeriesTitle		Local series title, if applicable. Same as Common Metadata TitleDisplayUnlimited for WorkType 'Series'	xs:string	0..n
	language	Language for local series title	xs:language	0..1

VersionDescription		A brief description of the version.	xs:string	0..1
ReleaseDate		Release date of title in earliest territory. This is highly recommended to disambiguate different works with the same title (e.g., Footloose 1984 vs. 2011). Can express year, year and month or release date.	Union(xs:gYear, xs:gYearMonth, xs:date)	0..1
ReleaseHistory		History of release such as air dates or DVD release information. Defined in Common Metadata, 4.1.1.	md:ReleaseHistory-type	0..n
USACaptionsExemptionReason		Caption information for United States distribution. If captions are not required, this element should be populated with a value defined below.	xs:positiveInteger	0..1
Ratings		Content Ratings. Ratings from should comply with Common Ratings [CR].	md:ContentRatings-type	0..1
SeriesAltIdentifier		Other identifiers for the series.	md:ContentIdentifier-type	0..n
NumberOfSeasons		Number of seasons in this series. If series is a miniseries, then this is interpreted as number of episodes.	xs:positiveInteger	0..1
SeriesStatus		Indicates the current status of the series (see below). If absent, 'Pending' is assumed.	xs:string	0..1
CompanyDisplayCredit		Information about grouping content into storefronts based on organizations such as studio or broadcaster. Equivalent to ComapnyDisplayCredits in Media Entertainment Core (MEC).	md:CompanyCredits-type	0..n
<any>		Any other element	any ##other	0..n

SeriesStatus is encoded as following

- 'Concluded' – Series is complete or will be at the end of the current season. This includes cancelled series.

- 'Continuing' – The series has been taken up for a new season.
- 'Pending' – The decision to conclude or continue a series has not been announced.

2.2.2.6 AvailBundledAsset-type

This complex type is used reference assets that are part of a Bundle. By definition, Bundles are collections of other products, although those assets are not necessarily being availed at the moment.

Information co

Element	Attribute	Definition	Value	Card.
AvailBundledAsset-type				
	sequence	Suggested sequence number of ALID. Assets should be listed in sequenced order.	xs:integer	0..1
BundledALID		Reference to the Logical Asset that is being bundled.	md:LogicalAsset-type	
SharedEntitlement		Identifiers used for shared entitlement systems associated with this bundled asset, if applicable.	md:AvailShared Entitlement-type	0..n
ShortDescription		Short Description for Avail associated with ALID. This is used for human readability and quality control.	xs:string	0..1

2.2.2.7 AvailVolumeMetadata-type

This metadata object is used for a Volume. A Volume is defined as a proper subset of a season, with consecutive episodes.

Typically, when Volumes are offered, the intent is to offer multiple Volumes that collectively constitute the entire season. For example, a 20-episode season could have two Volumes, each with 10 episodes (i.e., 1-10 and 11-20).

The offer of a Volume neither demands nor precludes the offer of a Season. That is, for a given season it is possible to have Volumes without Seasons, Seasons without Volumes or both Volumes and Seasons. Often, Volume will be offered until a Season is complete, and then the Season will be offered.

Note that it is possible to offer multiple episodes as a Bundle, in lieu of a Volume. However, the use of Volume syntax informs the recipient how the material is intended to be marketed. Similarly, it is possible to offer a Season as a Bundle of Volumes. However, this can be confusing when other titles are offered as Seasons.

Element	Attribute	Definition	Value	Card.
AvailVolumeMetadata-type				
VolumenContentID		The identifier for this Volume, preferably an EIDR. See EIDR for Volume Best Practices.	md:id-type	
VolumeEIDR-URN		Volume Abstraction-Level EIDR identifier using URN syntax as per [RFC7302]	xs::anyURI	0..1
VolumeTitleDisplayUnlimited		Title for Volume. Same as Common Metadata TitleDisplayUnlimited for WorkType 'Volume'.	xs:string	0..1
	language	Language of VolumeTitleDisplayUnlimited, encoded in accordance with [CM], Section 3.1.	xs:language	0..1
VolumeTitleInternalAlias		Title used by involved parties to refer to this Volume.	xs:string	0..n
	region	If present, represents [ISO3166-1] or [ISO3166-2] region where VolumeTitleInternalAlias instance applies. If absent, VolumeTitleInternalAlias applies to all regions.	xs:string	0..1
VolumeNumber		Volume number as defined in Common Metadata. Parties should agree upon which numbering scheme to use.	md:ContentSequenceInfo-type	
VersionDescription		A brief description of the version.	xs:string	0..1
ReleaseDate		Release date of title in earliest territory. This is highly recommended to disambiguate different works with the same title (e.g., Footloose 1984 vs. 2011). Can express year, year and month or release date.	Union(xs:gYear, xs:gYearMonth, xs:date)	0..1
ReleaseHistory		History of release such as air dates or DVD release information. Defined in Common Metadata, 4.1.1.	md:ReleaseHistory-type	0..n

USACaptionsExemptionReason		Caption information for United States distribution. If captions are not required, this element should be populated with a value defined below.	xs:positiveInteger	0..1
Ratings		Content Ratings. Ratings from should comply with Common Ratings [CR].	md:ContentRatings-type	0..1
VolumeAltIdentifier		Other identifiers for the season.	md:ContentIdentifier-type	0..n
VolumeNumberOfEpisodes		Number of episodes in this Volume. Omit if number of episodes is unknown.	xs:positiveInteger	0..1
	estimate	Indicates the number of episodes is estimated, particularly when a Volume is offered prior to the Volume being completely aired. If present, it must be 'true'. If 'true' then VolumeNumberOfEpisodes is an estimate.	xs:boolean	0..1
Status		Indicates the current status of the volume (see below). If absent, Volume is assumed to either completed or in the process of being distributed/aired.	xs:string	0..1
SeriesMetadata		Metadata about the series that includes this season.	avails:AvailSeriesMetadata-type	(choice)
SeasonMetadata		Metadata about the season that includes this Volume.	Avails:AvailSeasonMetadata-type	

For the purposes of counting episodes, an episode is a single video. This could be a single episode, double-episode or any other packaging. Bonus material should be handled as separate asset and not counted as an episode.

VolumeStatus is encoded as following

- 'Partial' – Volume was terminated mid-season. If still airing new episodes, VolumeNumberOfEpisodes is the anticipated number of episodes that will be completed.

2.2.3 AvailTrans-type

AvailTrans-type defines the business terms associated with the Avail.

Element	Attribute	Definition	Value	Card.
AvailTrans-type				
	TransactionID	Transaction Identifier must be unique within AvailLIst. It should be globally unique.	md:id-type	0..1
LicenseType		Type of transaction. See below.	xs:string	
Licensee		Transaction licensee	md:OrgName-type	0..1
Description		A free-form description of the transaction.	xs:string	0..1
Territory		Region or regions where transaction applies. Default is worldwide. Note that if both Territory and TerritoryExcluded are absent, default is worldwide.	md:Region-type	0..n
TerritoryExcluded		Region or regions where transaction does not apply. Default is nowhere, and Territory takes precedence.	md:Region-type	0..n
Start		Start of terms. If Start is absent, terms begin immediately. See Section 1.8.	xs:dateTime	(choice)
StartCondition		Non-date condition for start. For example, “Open”. See Section 1.8.	xs:string	
	lag	Duration after (positive) or before (negative) the StartCondition. End date and time of Avail is date and time of StartCondition plus @lag.	xs:duration	0..1
End		End of terms. See Section 1.8.	xs:dateTime	(choice)
EndCondition		Non-date condition for start. For example, “Open”. See Section 1.8.	xs:string	
	lag	Duration after (positive) or before (negative) the EndCondition. End date and time of Avail is date and time of EndCondition plus @lag.	xs:duration	0..1

AllowedLanguage		Language or languages to which transaction applies. If absent, then language restrictions, if any, will exist in bilateral agreements.	xs:language	0..n
	asset	Indicates the scope of assets covered. See below.	xs:string	0..1
AssetLanguage		Languages with the following properties: Intended language for fulfillment; and for presentation to audience in that territory. Whether AssetLanguage is contractual depends on the bilateral contract. If absent, refer to contract.	xs:language	0..n
	asset	Indicates the scope of assets covered. See below.	xs:string	0..1
	descriptive	Indicates descriptive audio is an intended asset.	xs:boolean	0..1
	assetProvided	Indicates which assets are committed for delivery. Same encoding as @asset.	xs:string	0..1
	assetProvided Date	Date when asset will be provided.	xs:date	0..1
	metadataProvided	Indicates metadata will be provided in this language.	xs:boolean	0..1
HoldbackLanguage		Indicates language associated with holdback	xs:language	0..n
	asset	Indicates the scope of assets covered. See below.	xs:string	0..1
LicenseRightsDescription		Description of License or Rights granted. See below.	xs:string	
FormatProfile		Indicates the format profile covered by the transaction. This typically refers to HD, SD, UHD, 3D, 3DSD, 3DHD or 3UHD.	avails:AvailFormatProfile-type	
ContractID		An identifier referencing any contract information relevant to this avail entry between the studio and retailer.	xs:string	0..1
ReportingID		This identifier, if provided, should be used for reporting. Note that any identifier can be used for reporting as agreed upon bilaterally. This column is here in case an additional ID is needed, or if its	xs:string	0..1

		more practical to always retrieve the reporting ID from a single location.		
RefALID		ALID relating to this transaction. See below	md:AssetLogicalID-type	0..n
	refAvailType	Indicates AvailType of associated with the promotion or supplement. If absent, it is assumed to be the same as the referenced Avail. If present, it must either match the referenced Avail or be 'series'	xs:string	0..1
Terms		Terms described in pre-defined values.	avails:AvailTerms-type	0..n
ExperienceCondition		Used in conjunction with Media Manifest, ExperienceCondition is the value used to match @condition in manifest:ALIDExperienceMap-type. See [Manifest], Section 9.2.	xs:string	0..1
OtherInstructions		Any other instructions. Free text.	xs:string	0..1

LicenseType should have one of the following values, although additional values may be used by agreement between sender and receiver:

- 'EST' (Electronic Sell Through)
- 'VOD' (Video on Demand) – Download or streaming based on individual transactions (e.g., payment per use).
- 'SVOD' (Subscription VOD) – Streaming on a subscription service
- 'POEST' (Pre-order EST)
- 'Pre-Release – Title has not yet shown/aired and is not available online. Start ot StartCondition indicates when title can be shown to consumers.
- 'Library – Title cannot currently be acquired (free, EST, etc.), but may be part of a consumer's library. Library titles may still be fulfilled within the constraints of the Avail.

Note that any of these models can be paid or free.

AllowedLanguage, AssetLanguage and HoldbackLanguage each have an @asset attribute. It is defined as follows:

- 'subtitle' Indicates subtitles (subs).
- 'audio' indicates audio dubs

- ‘subdub’ indicates subtitle and audio subs. If attribute it absent, ‘subdub’ is assumed.

LicenseRightsDescription should have one of the following values:

- ‘Next Day TV’ – Content that is typically published day after initial broadcast date.
- ‘POD’ – Publish on Delivery. Although a start date may be provided, the expectation is that content will published when the assets are delivered to the retailer. This is typically used for library where there is no expectation that publication will meet the start date.

FomatProfile should have one of the following values

- ‘UHD’ – 4K UltraHD
- ‘HD’ – High Definition
- ‘SD’ – Standard Definition
- ‘3D’ – 3D, nonspecific of resolution
- ‘3DUHD’ – 3D 4K UltraHD
- ‘3DHD’ – 3D High Definition
- ‘3DSD’ – 3D Standard Definition

@HDR can be encoded with the following values

- ‘true’ – nonspecific HDR
- ‘HDR10’ – 10-bit HDR (nonspecific)
- ‘DV’ – DolbyVision

RefALID is defined only when AvailType = ‘promotion’ or ‘supplement’. It is the ALID(s) of the promoted or supplemented Avail(s). Generally, the assets associated with the promotion or supplement applies to all assets associated with refALID. However, there is a special case where the promotion or supplement applies to a series. As series are not generally availed, such cases are handled by setting RefALID refers to a season of a series or an episode of a miniseries. The @refAvailType attribute then set ‘series’. In the case of a season the series is identified by Asset/SeasonMetadata/SeriesMetadata/SeriesContentID. In the case of miniseries, the miniseries is identified by Asset/EpisodeMetadata/SeriesMetadata/SeriesContentID

2.2.3.1 AvailTerms-type

Terms allows arbitrary business terms to be specified.

The precise interpretation is subject to the mutual agreement of parties involved, although guidance is provided within.

Each term is a name/value pair with the name expressed as termName and the value expressed as one of Money, Event, Duration or text depending on the data contained within the term. If data cannot be otherwise expressed, the any##other element can be used.

Element	Attribute	Definition	Value	Card.
AvailTerms-type				
	termName	Identifies the term. Enumeration is below. termName is case insensitive (i.e., case shall be ignored).	xs:string	
Money		Used when termName refers to a term expressed in terms of money.	md:Money-type	(choice)
Event		Used when termName refers to a term expressed in terms of a date, or date and time. See Section 1.8.	xs:union(xs:date, xs:dateTime)	
Duration		Used when termName refers to a term expressed in terms of a time duration.	xs:duration	
Text		Used when a term can be expressed in text and it is not one of the other term types.	xs:string	
Number		Used when a term can be expressed in numerical form.	xs:decimal	
Boolean		Used when term can be expressed as True or False	xs:boolean	
URI		Used for URIs, including identifiers.	xs:anyURI	
Language		Used for language.	xs:language	
ID		Any identifier	md:id-type	
YearDateTime		Year, date or date+time. For time-only use Time.	md:YearDateOrTime	
Time		Time. May include time zone.	xs:time	
Region		Geographic area	md:Region-type	
<any>		Any other element. Used when a term cannot practically be expressed with one of the other element choices.	any ##other	

The Term specified is indicated by termName with the following conditions. Only one instance of each term may be included unless otherwise specified.

termName	Interpretation	Element used
Tier	Pricing Tier	Text
SRP	Suggested Retail Price	Money
WSP	Wholesale Price	Money
EpisodeWSP	Episode Wholesale Price	Money
SeasonWSP	Season Wholesale Price	Money
DMRP	Deemed Minimum Retail Price	Money
SMRP	Suggested Minimum Retailer Price	Money
TPR-*x*	Temporary Price Reduction. 'x' represent represents another PriceType. For example, a temporary price reduction for WSP would be represented "TPR-WSP".	Money
TPRType	Indicates type of TPR. If "Conditional", price adjustments only apply if some condition is met (e.g., a campaign must be implemented). If "Unconditional", TPR is can always be applied. If "unspecified", blank or absent, it is unspecified whether the TPR is tied to a campaign. Note that conditional TPRs have also been referred to as "merchandized TPRs".	Text
LicenseFee	Indicates that this avail is associated with a license fee to the content provider, independent of pricing. The terms of this fee are within a bilateral agreement. Note that fee might be associated with a single title, or multiple titles (as per bilateral agreement). Text may be empty.	Text
Category	Price Category	Text
Included	Indicates item is not priced, but included with another Avail. ID is ALID of the object in which it is bundled. Item is not otherwise priced as it is included for free.	ID
SuppressionLiftDate	First date a title could be publicly announced as becoming available at a specific future date in territory of avail. See Section 2.2.5.	Event
AnnounceDate	Date when the retailer is permitted to announce the availability start date of the title within the available territory. If expressed as a date, the time is assumed to be 12:01AM in the availability territory. See Section 2.2.5.	Event
PreorderFulfillDate	Date that a pre-order video can be released to a consumer for viewing. Only applies to pre-order license types. If omitted, fulfillment date is EST start. See Section 2.2.5.	Event
RentalDuration	Duration of rental period in hours	Duration
WatchDuration	How long user has to complete viewing once started, in hours	Duration
FixedEndDate	Fixed date when VOD rentals end, regardless of when purchased.	Event

LocalizationOffering	Distinguishes products that are offered based on whether the offering is localized with dubbed audio track or a language subtitle track. Valid values are 'sub' which means the offering includes subtitles; and 'dub' means offering includes dubbed audio. If product contains both, this should not be included. If product contains one or the other, but is not offered based on that distinction, this should not be included.	Text
TitleStatus	Status of contract as it pertains to the Avail. Valid values are "Pending", "Approved", "Revoked" and "Expired"	Text
Download	License includes permission to download. Valid values are "Yes" and "No". If constraints exist on download, they should be included in ad hoc terms.	Text
Exclusive	Assets are exclusive within the scope of the Transaction.	Boolean
ExclusiveAttributes	Additional attributes associated with Exclusivity.	Text
BrandingRights	Retailer has branding rights for this title. These rights are enumerated outside of the Avail (e.g., in a contract) and, when available, in BrandingRightsAttributes	Boolean
BrandingRightsAttributes	Attributes associated with BrandingRights.	Text
PackageLabel	Label identifying media package for delivery. When Avails in different territories have the same PackageLabel, retailers may use/reuse the same media package in both territories.	Text
Bonus	Offering includes bonus. Corresponds with Bonus column in Excel Avails.	Boolean
StoreType	Store for which offer is targeted; typically, "TV" or "Movie". Corresponds with StoreType in Excel.	Text
CampaignID	If there is a campaign, this field is used to identify it. Values must be understood bilaterally.	ID

If value is post-tax, then the term "-PostTax" should be appended. For example, if Episode WSP is expressed post-tax it would be "EpisodeWSP-PostTax". Otherwise, pre-tax pricing is assumed.

Money is defined in Common Metadata [CM]. Note that Currency as expressed in ISO 4217 Currency Alphabetic Code. For example, 'USD" for US Dollars. If absent, then local currency is assumed. ISO4217 typically allows two or three digits after the decimal. However, Value in this element may have as many decimal places as necessary.

If currency is omitted, it is to be handled in accordance with bilateral agreements. If there is no specific agreement, currency is the currency associated with Territory.

In a general sense, Exclusivity indicates that the retailer has exclusive rights to offer something, somewhere in some form. For the most part, the somewhere and something is covered by the other attributes of the Avail (location, window, assets, etc.). Some attributes are too specific to capture under a general time, and should be added as custom attributes. When translating from Excel, these attributes fall under the "ExclusivityAttributes" column/term.

2.2.3.2 AvailFormatProfile-type

AvailFormatProfile-type		Indicates the format profile covered by the transaction. This typically refers to HD, SD, UHD, 3D, 3DSD, 3DHD or 3UHD.	xs:string	
	HDR	If present, High Dynamic Range is included. If absent, status depends on FormatProfile and bilateral agreement. May contain format as defined below.	xs:string	0..1
	WCG	Indicates whether Wide Color Gamut is included. If absent, status depends on FormatProfile and bilateral agreement.	xs:string	0..1
	HFR	Indicates whether HFR is included. If absent, status depends on FormatProfile and bilateral agreement.	xs:string	0..1
	NGAudio	If present, Next Generation audio, such as Object Based Sound, is included. If absent, status depends on FormatProfile and bilateral agreement. May encode format, such as “Atmos”, “DTS:X” or “Auro3D”.	xs:string	0..1

2.2.4 AvailSharedEntitlement-type

This type contains information needed to associate this Avail with shared entitlement systems such Disney Movies Anywhere (DMA) and UltraViolet.

An Avail might correspond with multiple IDs within each ecosystem. For example, if a TV season is avail’d for UltraViolet, there must be an EcosystemID for each episode. If multiple instances of EcosystemID exist with the same @ecosystem, all ID should be entitled within that ecosystem.

When posting Ecosystem IDs, instances in Avail/SharedEntitlement and in Avail/Asset/Bundled/Asset/SharedEntitlement most all be included.

Element	Attribute	Definition	Value	Card.
AvailSharedEntitlement-type				
	ecosystem	Shared entitlement system.	xs:string	
EcosystemID		Identifier used in the system	xs:string	1..n
DepricatedEcosystemID		ID that has been replaced by another ID	xs:string	0..n

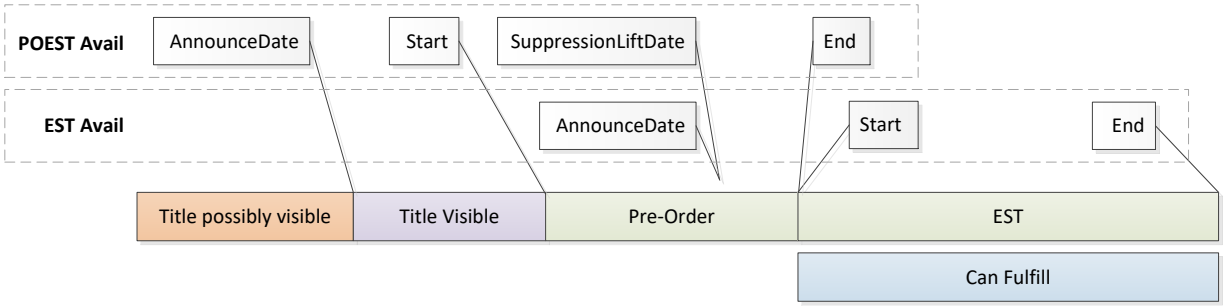
The ecosystem attribute is encoded as follows:

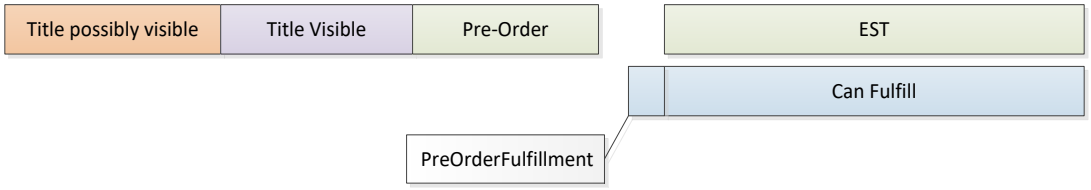
- 'DMA' – Disney Movies Anywhere
- 'UVVU' – UltraViolet

2.2.5 Relationship between date Terms

There are several date elements and Terms. The following describes the default definitions. Bilaterally agreed upon definitions always supersede definitions in the specification.

License Type	Start	End	AnnounceDate	SuppressionLiftDate	SpecialPreorderFulfillmentDate
POEST	Start accepting preorder	Stop accepting preorder. If "ESTStart" then it's Start for EST	Date when retailer can announce Preorder Start (must be before Start)	Date when retailer can announce EST Start. Must be on or before End.	Date when preorder can be fulfilled. Must be after End and before EST Start.
EST	Start accepting EST. Start fulfilling. Must be after POEST End.	Stop accepting EST.	Date when you can announce EST Start. Must same as POEST SuppressionLiftDate (if both given)	N/A	N/A





3 DIGITALLY SIGNED AVAILS

To support the signing of avails to avoid tampering and also for non-repudiation, a signing mechanism is provided. For example, this mechanism provides a mechanism to know that an Avail delivered in an email message is truly from the expected source and has not been modified in transit.

3.1 Signed Container (AvailListSigned)

An element AvailListSigned, defined as AvailListSigned-type, contains an AvailList and a Signature element.

Element	Attribute	Definition	Value
AvailListSigned-type			
Message		Avail List	avail:AvailList-type
Signature		xmldsig Signature. See "Signed XML" below. (optional)	ds:SignatureType

3.2 Signed XML

For message-level authentication, the general process is that the sender generates unsigned messages (based on the appropriate specification for the message), generates a digital signature for that message, and then packages the message with the signature. This package is then sent to the recipient. The signed message contains enough information to validate the sender of the message, and includes both the unsigned message as well as the digital signature of the unsigned message XMLDSIG Signature.

XML Digital Signatures can be used to sign and validate messages across any delivery structure. These shall be in conformance with [XMLDSIG]. Note that later versions may be adopted as defined here: http://www.w3.org/TR/xmldsig-core/.

The following constraints shall apply when generating digital signatures:

- For CanonicalizationMethod
  - Algorithm=http://www.w3.org/2006/12/xml-c14n11#WithComments
- For SignatureMethod,
  - Algorithm=http://www.w3.org/2000/09/xmldsig#rsa-sha1
- For DigestMethod,
  - Algorithm=http://www.w3.org/2000/09/xmldsig#sha1

A sample XML segment containing a digital signature is shown below.

```
<?xml version="1.0" encoding="UTF-8"?>
<AvailListSigned xmlns="http://www.movielabs.com/schema/avails/v1.6c/avails"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
```

```
xmlns:md="http://www.movielabs.com/schema/md/v2.3/md"
xmlns:mdmec="http://www.movielabs.com/schema/mdmec/v2.3"
xsi:schemaLocation="http://www.movielabs.com/schema/avails/v1.6c/avails avails-v1.6c-
draft-20150315.xsd">
<AvailList>
   . . .
</AvailList>
<ds:Signature>
      <ds:SignedInfo>
         <ds:CanonicalizationMethod Algorithm="http://www.w3.org/2006/12/xml-
c14n11#WithComments"/>
         <ds:SignatureMethod Algorithm="http://www.w3.org/2000/09/xmldsig#rsa-sha1"/>
         <ds:Reference URI="#envelope">
            <Transforms>
               <Transform Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#"/>
            </Transforms>
            <ds:DigestMethod Algorithm="http://www.w3.org/2001/10/xmldsig#sha1"/>
            <ds:DigestValue>6hpmccmjxQmAI143OhQfIWpkryw=</ds:DigestValue>
         </ds:Reference>
      </ds:SignedInfo>
   <ds:SignatureValue>UjBsR09EbGhjZ0dTQUxNQUFBUUNBRU1tQ1p0dU1GUXhEUzhi</ds:SignatureVa
lue>
      <KeyInfo>
         <X509Data>
            <X509IssuerSerial>
               <X509IssuerName>CN=TestSignCert</X509IssuerName>
            <X509SerialNumber>754965031224224581501935404490680960 25</X509SerialNumber>
            </X509IssuerSerial>
         </X509Data>
      </KeyInfo>
   </ds:Signature>
</MessageEnvelope>
```

Note that senders must use the same certificate, as defined in the KeyInfo element of the XMLDSig, for all messages using web services. This Key will serve as a unique identifier for the sender, and will be used to describe configuration information (such as URIs) associated with the sender. Note that the Reference element's URI attribute will always be set to the value "#Body".

The following constraints shall apply when generating digital signatures:

- Data will be transmitted in accordance with section 6.6.4 of that document, "Envelope Transform". XML for encoding may be found here: http://www.w3.org/TR/2002/REC-xmldsig-core-20020212/xmldsig-core-schema.xsd#enveloped-signature

All web-based delivery mechanisms will support Signed Messages as defined above as a mechanism to sign and validate messages. Email-based delivery will not use XMLDSIG to sign messages.

All recipients of messages should validate Signed Messages before processing them.

Note that all messages require the use of Canonical XML, Version 1.1 (With Comments), [XMLC1.1], which is necessary for proper signing.

Note that when using W3C schemas it is best to copy schemas to a local directory. http://www.w3.org/Help/Webmaster.html#slowdtd.

4 OFFER STATUS

This section defines data structure for Offer Status. Offer Status is information sent from a retailer, platform or service provider to the studio/content owner (or service provider) with the status of an Avail or Title List. That is, whether the title is live, and critical data about readiness. Offer Status is independent of business model, and applies to TVOD, AVOD, SVOD, OTT, D2C, IFE or any other content offer.

Note that there is a separate document for Asset Status that provides detail on the ingestion status of specific assets.

The elements for Offer Status are `OfferStatus` and `OfferStatusList`. These are defined by the XML complex types `OfferStatus-type` and `OfferStatusList-type`.

4.1 Offer Status List

An Avail List contains on or more Avails.

Element	Attribute	Definition	Value	Card.
OfferStatusList		Element for an Avail Status List	avails:OfferStatusList-type	

Element	Attribute	Definition	Value	Card.
AvaiStatuslList-type				
OfferStatus		An Avail Status object	avails:OfferStatus-type	1..n

4.2 OfferStatus

The OfferStatus element is defined as follows:

Element	Attribute	Definition	Value	Card.
OfferStatus		Element continuing a single OfferStatus object	avail:Avail-type	

The OfferStatus-type complex type is defined as follows:

Element	Attribute	Definition	Value	Card.
OfferStatus-type				
	updateNum, workflow, etc.	As defined in Common Metadata [CM], Section 3.15, Workflow Attribute Group.	md:workflow-attr	
Compatibility		Version information for determining compatibility.	md:Compatibility-type	0..1
ALID		Logical Asset Identifier. The ALID identifies the set of content contained within the Avail.	md:AssetLogicalID-type	(choice)
EIDRTitle-URN		EIDR Abstraction ID	xs:anyURI	
EIDREdit-URN		EDIR Performance ID	xs:anyURI	
ID		Other ID type. Type indicated in ID/Namespace	md:ContentIdentifier-type	
PlatformID		ID Platform assigned and associates with this offer	md:id-type	0..n
	IDType	Any identification which defines the nature or source of the ID. For example, this could be a name the platform uses for the ID.	md:string	0..1
Licensor		The entity issuing the Avail	mdmec:Publisher-type	0..1
ServiceProvider		Entity that will deliver assets associated with the Avail. This is typically a post-production organization.	mdmec:Publisher-type	0..1
OverallStatus		Overall Status of offer	avails:OfferStatusObject-type	0..1
Transaction		Status as it applies to one or more Transactions	avails:OfferStatusTransaction-type	0..n

This object can be identified by ALID, EIDR (abstraction or performance) or any other identifier.

4.3 OfferStatusTransaction-type

Element	Attribute	Definition	Value	Card.
OfferStatus-type				
TransactionID		If referring to an offer in XML, one or more TransactionIDs from the original offer as defined in Section 2.2.3. If referring to Excel Avail, one or more AvailIDs from the original offer.	md:id-type	0..n
	timestamp	Date and time when status was generated.	xs:dateTime	0..1
ContractID		Contract ID as defined in Section 2.2.3	xs:string	0..1
ReportingID		Reporting ID as defined in Section 2.2.3. This can potentially assist in reconciliation between the offer and the status.	xs:string	0..1
LicenseType		Type of transaction as defined in Section 2.2.3	xs:string	0..1
Territory		One or more regions covered by this Status	md:Region-type	0..n
TerritoryExcluded		One or more regions not covered by this Status	md:Region-type	0..n
FormatProfile		Format profile as defined in Section 2.2.3	avails:FormatProfile-type	0..n
FeatureStatus		Status of feature	avails:OfferStatusObject-type	
BonusStatus		Status of bonus/extras/VAM, if applicable	avails:OfferStatusObject-type	0..1
PlatformLRD		Platform's interpretation of LicenseRightsDescription as defined in Section 2.2.3	xs:string	0..1
OfferURL		URL to location where offer has or will appear.	xs:anyURI	0..n
Term		Any additional terms relevant to the status. Price information is returned as terms.	avails:AvailTerms-type	0..n
Comments		Any additional comments	xs:string	0..1
ExceptionsFlag		Indicator that an issue should be addressed. See Comments field for details. If present, it shall be set to 'true'. If absent, it is assumed to be 'false'	xs:boolean	0..1

4.3.1 AvailsStatusObject-type

This object provides the status on either the feature or bonus/extras/VAM.

As progress can change over time, status is given a timestamp. Status, such as ProgessCode, should only be interpreted to be valid at that moment. For example, a title might not be live when the status was sent but has since gone live.

Element	Attribute	Definition	Value	Card.
OfferStatusObject-type				
	timestamp	Date and time when status was generated.	xs:dateTime	0..1
ProgressCode		Code indicating progress of offer. See below.	xs:string	
Start		Date when offer goes into effect	xs:dateTime	(choice)
StartCondition		Start Condition. “TBD” is the only valid value. See Section 1.8	xs:string	
End		Date when offer expires. See Section 1.8	xs:dateTime	(choice) 0..1
EndCondition		End Condtion. “TBD” and “Open” are the only valid value. See Section 1.8	xs:string	
AssetLanguage		Languages of assets that will be taken live	xs:language	0..n
	asset	Indicates the scope of assets covered as defined in Section 2.2.3	xs:string	0..1
	descriptive	Indicates descriptive audio is an intended asset, as defined in Section 2.2.3	xs:boolean	0..1
	holdback	Language, as modified by @asset and @descriptive is a holdback	xs:boolean	0..1
Comments		Any additional comments	xs:string	0..1

ProgressCode is encoded as follows:

- ‘Live’ – Offer is live
- ‘Ready’ – Offer is staged, but not yet live. All assets and metadata have been ingested.
- ‘Issue’ – There is an issue, such as waiting for essential assets (i.e., assets or metadata required to go live) to be delivered; or Essential assets have been rejected and need to be replaced. Other essential assets might be missing too.

- 'In-Process' – All essential assets are in the process of being delivered and processed.

Use of StartCondition and EndCondition are more constrained in OfferStatus than in AvailTransaction. The platform is expected to fill in actual dates, rather than conditional dates. This ensure the date is accurate. "TBD" may be used early in the process where dates might not be known. "Open" may be used for end date when the EndCondition in the Offer is "Open".

4.4 Matching status to an Avail

When receiving Avail Status, it is necessary to reconcile the status to the original Avail. There are two ways of doing this:

- Match ALID plus TransactionID/AvailID.
- Match ALID plus LicenseType, Region, and FormatProfile

In XML, TransactionID corresponds with a single Transaction record. This corresponds with a single row in Excel, although in Excel the ID is called AvailID. The most reliable matching is via TransactionID. However, TransactionID is an optional field. We strongly recommend that anyone expecting to receive OfferStatus include a TransactionID that is unique within the ALID.

The alternative is to match a set of parameters that together uniquely identify a row. These are ALID, LicenseType, Region and FormatProfile.