

# **Metadata Specifications**

## **CableLabs® Content 3.0 Specification**

### **MD-SP-CONTENTv3.0-I01-100812**

**ISSUED**

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## Document Status Sheet

|                                   |                                      |                      |                                  |                   |
|-----------------------------------|--------------------------------------|----------------------|----------------------------------|-------------------|
| <b>Document Control Number:</b>   | MD-SP-CONTENTv3.0-I01-100812         |                      |                                  |                   |
| <b>Document Title:</b>            | CableLabs® Content 3.0 Specification |                      |                                  |                   |
| <b>Revision History:</b>          | I01 - Released 8/12/10               |                      |                                  |                   |
| <b>Date:</b>                      | August 12, 2010                      |                      |                                  |                   |
| <b>Status:</b>                    | <del>Work In Progress</del>          | <del>Draft</del>     | Issued                           | <del>Closed</del> |
| <b>Distribution Restrictions:</b> | <del>Author Only</del>               | <del>CL/Member</del> | <del>CL/Member/<br/>Vendor</del> | Public            |

### Key to Document Status Codes:

|                         |                                                                                                                                                                                            |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Work in Progress</b> | An incomplete document, designed to guide discussion and generate feedback, that may include several alternative requirements for consideration.                                           |
| <b>Draft</b>            | A document in specification format considered largely complete, but lacking review by Members and vendors. Drafts are susceptible to substantial change during the review process.         |
| <b>Issued</b>           | A stable document, which has undergone rigorous member and vendor review and is suitable for product design and development, cross-vendor interoperability, and for certification testing. |
| <b>Closed</b>           | A static document, reviewed, tested, validated, and closed to further engineering change requests to the specification through CableLabs.                                                  |

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# 1 SCOPE

## 1.1 Introduction and Purpose

This document describes the grammar needed to represent information pertinent to the distribution, presentation and consumption of video-on-demand (VOD) content. In a normal use case, the VOD metadata originates from a provider and is distributed to operators.

A set of files referenced in this document contains the XML Schema definition that may be used to validate XML documents purported to conform to this specification. This specification and accompanying XML Schema documents are the Point of Authority for compliance.

## 1.2 Requirements

Throughout this document, the words that are used to define the significance of particular requirements are capitalized. These words are:

|              |                                                                                                                                                                                                                                                                                   |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| "MUST"       | This word means that the item is an absolute requirement of this specification.                                                                                                                                                                                                   |
| "MUST NOT"   | This phrase means that the item is an absolute prohibition of this specification.                                                                                                                                                                                                 |
| "SHOULD"     | This word means that there may exist valid reasons in particular circumstances to ignore this item, but the full implications should be understood and the case carefully weighed before choosing a different course.                                                             |
| "SHOULD NOT" | This phrase means that there may exist valid reasons in particular circumstances when the listed behavior is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behavior described with this label. |
| "MAY"        | This word means that this item is truly optional. One vendor may choose to include the item because a particular marketplace requires it or because it enhances the product, for example; another vendor may omit the same item.                                                  |

## 2 REFERENCES

### 2.1 Normative References

In order to claim compliance with this specification, it is necessary to conform to the following standards and other works as indicated, in addition to the other requirements of this specification. Notwithstanding, intellectual property rights may be required to use or implement such normative references.

|                  |                                                                                                                                                                                                                         |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [IETF BCP 47]    | IETF BCP 47, Tags for Identifying Languages, 2009, Internet Engineering Task Force.                                                                                                                                     |
| [ISO 3166]       | International Organization for Standardization, ISO 3166-1:2006. Code for the representation of names of countries and their subdivisions – Part 1: Country codes.                                                      |
| [ISO 4217]       | International Organization for Standardization, ISO 4217:2008. Codes for the representation of currencies and funds.                                                                                                    |
| [XML InfoSet]    | W3C Recommendation, "XML InfoSet (Second Edition)", John Cowan, Richard Tobin, 4 February 2004, <a href="http://www.w3.org/TR/2004/REC-xml-infoset-20040204/">http://www.w3.org/TR/2004/REC-xml-infoset-20040204/</a> . |
| [XML Namespaces] | W3C Recommendation, "Namespaces In XML (Second Edition)", Tim Bray, et al, 16 August 2006, <a href="http://www.w3.org/TR/2006/REC-xml-names-20060816/">http://www.w3.org/TR/2006/REC-xml-names-20060816/</a> .          |
| [XML SchemaP1]   | W3C Recommendation, "XML Schema Part 1: Structures (Second Edition)", H. Thompson, et al, 28 October 2004, <a href="http://www.w3.org/TR/xmlschema-1/">http://www.w3.org/TR/xmlschema-1/</a> .                          |
| [XML SchemaP2]   | W3C Recommendation, "XML Schema Part 2: Datatypes (Second Edition)", P. Biron, et al, 28 October 2004, <a href="http://www.w3.org/TR/xmlschema-2/">http://www.w3.org/TR/xmlschema-2/</a> .                              |
| [XML]            | W3C REC: eXtensible Markup Language (XML) 1.1, February 4, 2004.                                                                                                                                                        |

### 2.2 Informative References

This specification uses the following informative references.

|               |                                                                                                                                                                |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [ADI1.1]      | CableLabs Asset Distribution Interface Specification Version 1.1, MD-SP-ADI1.1, MD-SP-ADI1.1-I04-060505, May 5, 2006, Cable Television Laboratories, Inc.      |
| [Ad-ID]       | Ad-ID Structure, <a href="https://www.ad-id.org/help/structure.cfm">https://www.ad-id.org/help/structure.cfm</a>                                               |
| [Content1.1]  | CableLabs Video-on-Demand Content Specification Version 1.1, MD-SP-VOD-CONTENT1.1-I06-091229, December 29, 2009, Cable Television Laboratories, Inc.           |
| [GENRES]      | Genres list can be found at: <a href="http://www.cablelabs.com/projects/metadata/lists/">http://www.cablelabs.com/projects/metadata/lists/</a>                 |
| [IEC 13818-6] | ISO/IEC 13818-6: 1998(E) Information Technology- generic Coding of Moving Pictures and Associated Audio Information – Part 6: Extensions for DSM-CC.           |
| [ISAN]        | ISAN User Guide, <a href="http://www.isan.org/docs/isan_user_guide.pdf">http://www.isan.org/docs/isan_user_guide.pdf</a>                                       |
| [ISRC]        | International Standard Recording Code (ISRC) FAQ:<br><a href="http://www.riaa.com/issues/audio/isrc_faq.asp">http://www.riaa.com/issues/audio/isrc_faq.asp</a> |
| [MPAA]        | Motion Picture Association of America Ratings, <a href="http://www.mpa.org/ratings">http://www.mpa.org/ratings</a>                                             |
| [STUDIO]      | Studio list can be found at: <a href="http://www.cablelabs.com/projects/metadata/lists/">http://www.cablelabs.com/projects/metadata/lists/</a>                 |
| [TV]          | TV Parental Guidelines, <a href="http://www.tvguidelines.org/ratings.htm">http://www.tvguidelines.org/ratings.htm</a>                                          |
| [VOD-CEP]     | CableLabs Video-On-Demand Content Encoding Profiles Specification, MD-SP-VOD-CEP2.0-I04-100416, April 16, 2010, Cable Television Laboratories, Inc.            |

## 2.3 Reference Acquisition

CableLabs Specifications:

- Cable Television Laboratories, Inc., 858 Coal Creek Circle, Louisville, CO 80027; Phone 303-661-9100; Fax 303-661-9199; Internet: <http://www.cablelabs.com>

IETF Specifications:

- Internet Engineering Task Force (IETF) Secretariat, 48377 Fremont Blvd., Suite 117, Fremont, California 94538, USA, Phone: +1-510-492-4080, Fax: +1-510-492-4001, Internet: [www.ietf.org](http://www.ietf.org)

ISO Specifications:

- ISO Central Secretariat: International Organization for Standardization (ISO), 1, rue de Varembe, Case postale 56, CH-1211 Geneva 20, Switzerland; Internet: <http://www.iso.org>

WC3 Specifications:

- XML Specifications: Worldwide Web Consortium, <http://www.w3c.org>

### 3 TERMS AND DEFINITIONS

This specification uses the following terms:

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Asset</b>                        | A combination of content and other Assets along with their associated metadata. Assets may directly refer to physical media, in which case they are considered Content Assets. An Asset may be an abstract container of references to other Assets with metadata that applies to all of the referenced Assets.                                                                                                                              |
| <b>Asset Distribution Interface</b> | The means by which assets (content as well as metadata describing that content) are transported from a provider to an Asset Management System. In addition, it provides a mechanism by which 'block' updates may be made to previously distributed assets. These block updates include metadata replacement, adding a new child asset to a previously received asset and deleting an asset.                                                 |
| <b>Asset Distribution System</b>    | Provides transportation of Assets from the premises of the Assets' provider to the premises of the MSO. It interfaces to the Asset Management System using the Asset Distribution Interface (ADI).                                                                                                                                                                                                                                          |
| <b>Asset Management System</b>      | An entity that stores and manages the lifecycle of Assets.                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Content Asset</b>                | A specific type of Asset including a reference to content, which is a physical media file (e.g., MPEG-encoded movie) along with the necessary metadata required to use the content for a given application.                                                                                                                                                                                                                                 |
| <b>Metadata</b>                     | Descriptive data associated with a content asset or file. It may vary in depth from merely identifying the asset or information to populate an EPG to providing a complex index of different scenes in a movie or providing business rules detailing how the content may be displayed, copied or sold. Separate uses for metadata have originated from the studios, distribution networks (Cable, Satellite), down to the CPE (STBs, PVRs). |
| <b>Provider</b>                     | A Party responsible for allocating asset identifiers.                                                                                                                                                                                                                                                                                                                                                                                       |

## 4 ABBREVIATIONS AND ACRONYMS

This specification uses the following abbreviations:

|               |                                            |
|---------------|--------------------------------------------|
| <b>AMS</b>    | Asset Management System                    |
| <b>APS</b>    | Analog Protection System                   |
| <b>CA</b>     | Content Asset                              |
| <b>CGMS_A</b> | Copy Generation Management System - Analog |
| <b>CIT</b>    | Constrained Image Trigger                  |
| <b>EMI</b>    | Encryption Mode Indicator                  |
| <b>EPG</b>    | Electronic Program Guide                   |
| <b>HD</b>     | High Definition                            |
| <b>ID</b>     | Identifier                                 |
| <b>MPAA</b>   | Motion Picture Association of America      |
| <b>MSO</b>    | Multiple System Operator                   |
| <b>NPT</b>    | Normal Playback Time                       |
| <b>SD</b>     | Standard Definition                        |
| <b>STB</b>    | Set-Top Box                                |
| <b>SVOD</b>   | Subscription Video-on-Demand               |
| <b>TBD</b>    | To Be Determined                           |
| <b>TV</b>     | Television                                 |
| <b>UI</b>     | User Interface                             |
| <b>URI</b>    | Uniform Resource Identifier                |
| <b>URL</b>    | Uniform Resource Locator                   |
| <b>VOD</b>    | Video-on-Demand                            |
| <b>XML</b>    | Extensible Markup Language                 |

## 5 OVERVIEW

This specification defines the metadata content assets that are used to distribute a VOD release from a Provider to a number of cable operators.

### 5.1 Metadata 3.0 Data Model

The essential conceptual object in the Metadata 3.0 data model is an Asset. An asset represents the basic amount of information that all other metadata types SHOULD contain.

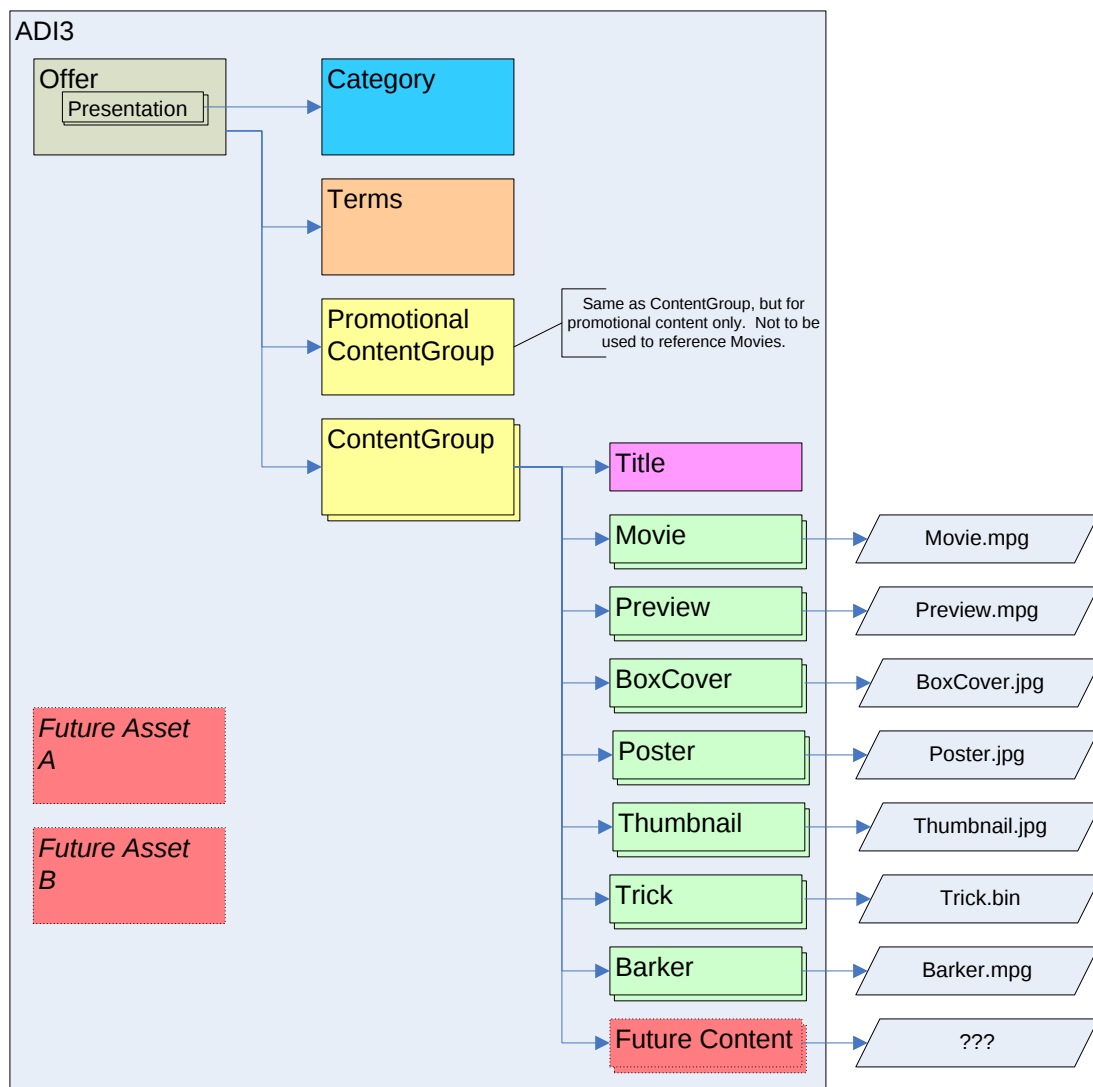


Figure 1 - Asset Relationships

#### 5.1.1 Offer

An offer is the structure used to assemble related content, title information, and terms for presentation to a customer. It will include all of the necessary information to sell content to a customer. This may include a single movie, a

grouping of television programs, trilogies, or combinations of any sort. This model may be extended in the future to define offerings of mixed media.

An offer will include one or more content groups plus a single promotional content group. The promotional content group refers to content (title, previews, images, etc.) that may be used to present and sell the offer to a customer. Sometimes the promotional content for a combination (e.g., movie trilogy, TV season) will be different than for any single movie or program content group. In a simple case, the promotional content and included content will reference the same content group.

### **5.1.2 Terms**

Pricing, content restrictions, and royalty information are bundled together to create a set of Terms. These terms represent the business agreements that accompany an offer and may be reused in more than one offer. The terms apply to all of the content included with the offer.

### **5.1.3 Category**

A Category defines a set of category paths that are used for presentation in a VOD menu system.

### **5.1.4 ContentGroup**

A ContentGroup is a combination of all of the related content (movies, previews, images, etc.) with its Title metadata. A Title is presumed to always be included and at least one form of content. Groupings of content may be reused by combining them with terms to create different offers.

A ContentGroup MAY contain multiple types of content or multiple versions of the same content. For example, a content group could contain metadata for both the standard and HD version of the same movie, if the two are interchangeable and can be represented by the same set of terms in the referencing offer.

### **5.1.5 Title**

The Title defines the descriptive metadata for a movie or set of movies (or programs). This may be information that is used for actual display on the user's screen (e.g., Name of the movie, Actors), or may be used in the VOD system for classification or display constraints (e.g., Rating). Titles may be shared between different content groups, but only one title will be associated with a given content group.

### **5.1.6 ContentAsset**

ContentAsset is the metadata asset that represents the actual content files distributed to the end system.

#### **5.1.6.1 AudioVideo ContentAsset**

This category of ContentAsset includes Movies, Previews, and Barkers. A Movie is the actual audio video content that's being offered to the user and is subject to the terms referenced in the offer. A Preview is an audio video promotion for the same movie, but is assumed to not be subject to the price expressed in the terms unless otherwise agreed. Note that a Movie can actually be any type of audio video content where the terms apply (e.g., TV program, pre-recorded event, etc.).

A Barker is a form of promotional content that is typically played in a continuous loop. It is usually not associated with a single Movie, but is provided in a separate content group for a particular category of content.

### 5.1.6.2 *StillImage ContentAsset*

The Still Image ContentAsset category includes Posters, BoxCovers, and Thumbnails that may be used to promote a Movie. It is often used as part of a user-selection screen in a VOD menu or EPG.

### 5.1.6.3 *Trick ContentAsset*

A Trick is a special type of ContentAsset that is associated with a Movie or Preview and includes pre-processed images to display during fast forward or rewind operations.

### 5.1.6.4 *Extending the model with new ContentAssets*

The ContentGroup may be extended to include new types of content that are not currently anticipated in this specification.

## 5.2 Specification Components

This specification consists of the following elements:

1. This specification document, which is normative except as otherwise noted.
2. The associated XML schema files are listed in the table below and are normative.

**Table 1 - Normative Schema Files**

| Schema File Name           | Namespace                                                  |
|----------------------------|------------------------------------------------------------|
| MD-SP-VODContainer-I01.xsd | http://www.cablelabs.com/namespaces/metadata/xsd/vod30/1   |
| MD-SP-CORE-I01.xsd         | http://www.cablelabs.com/namespaces/metadata/xsd/core/1    |
| MD-SP-OFFER-I01.xsd        | http://www.cablelabs.com/namespaces/metadata/xsd/offer/1   |
| MD-SP-TERMS-I01.xsd        | http://www.cablelabs.com/namespaces/metadata/xsd/terms/1   |
| MD-SP-TITLE-I01.xsd        | http://www.cablelabs.com/namespaces/metadata/xsd/title/1   |
| MD-SP-CONTENT-I01.xsd      | http://www.cablelabs.com/namespaces/metadata/xsd/content/1 |

## 6 XML CONVENTIONS

This document relies heavily on normative XML schemas to complete this 3.0 specification. Several common conventions are employed in the creation of the schemas and definition of the data model.

### 6.1 Normative XML Schemas

The messages, elements, and attributes that make up this specification are not explicitly defined in this document. The normative XML schemas (provided separately) comprise the full normative specification.

No messages representing the interfaces defined in the schema are considered conformant unless they are valid according to the schema documents. In the case where the written normative specification and the normative schema document conflict, the XML schema documents shall take precedence. Furthermore, there are additional requirements described in the schema annotations that are not enforceable by schema validation mechanisms. These requirements **MUST** also be strictly observed.

The inclusion of a normative XML schema document does not require or imply the specific use of the schema nor a requirement that a message be validated.

### 6.2 XML Namespaces

Each of the schemas included with this specification has a unique namespace. Table 2 lists the namespaces, recommended prefixes, and a description along with the major types defined.

**Table 2 - XML Namespace Declarations**

| Prefix  | Namespace                                                                                                                           | Description                                           |
|---------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| xml     | <a href="http://www.w3.org/XML/1998/namespace">http://www.w3.org/XML/1998/namespace</a>                                             | Used for xml:lang attribute                           |
| xsd     | <a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a>                                                     | XML foundation. See [XML SchemaP1], [XML SchemaP2]    |
| xsi     | <a href="http://www.w3.org/2001/XMLSchema-instance">http://www.w3.org/2001/XMLSchema-instance</a>                                   |                                                       |
| vod30   | <a href="http://www.cablelabs.com/namespaces/metadata/xsd/vod30/1">http://www.cablelabs.com/namespaces/metadata/xsd/vod30/1</a>     | Provides VODContainerType and the root ADI3 element   |
| core    | <a href="http://www.cablelabs.com/namespaces/metadata/xsd/core/1">http://www.cablelabs.com/namespaces/metadata/xsd/core/1</a>       | Provides the base AssetType and AssetRefType          |
| offer   | <a href="http://www.cablelabs.com/namespaces/metadata/xsd/offer/1">http://www.cablelabs.com/namespaces/metadata/xsd/offer/1</a>     | Provides OfferType, CategoryType and ContentGroupType |
| terms   | <a href="http://www.cablelabs.com/namespaces/metadata/xsd/terms/1">http://www.cablelabs.com/namespaces/metadata/xsd/terms/1</a>     | Provides TermsType                                    |
| title   | <a href="http://www.cablelabs.com/namespaces/metadata/xsd/title/1">http://www.cablelabs.com/namespaces/metadata/xsd/title/1</a>     | Provides TitleType                                    |
| content | <a href="http://www.cablelabs.com/namespaces/metadata/xsd/content/1">http://www.cablelabs.com/namespaces/metadata/xsd/content/1</a> | Provides all of the known content types               |

### 6.3 Unknown/Unrecognized/Unsupported XML Elements and Attributes

Generally, unknown, unrecognized, or unsupported XML elements and attributes contained within Core Metadata messages and elements **SHOULD** be ignored during message processing. Specifically, these are elements or attributes that the implementation does not understand or expect.

### 6.4 Element Order

Element order is constrained by the schema and **MUST** be preserved throughout processing of the XML document. In particular, the order of elements affects the end result of the processing. Consequently, an implementation failing to preserve the order may cause incorrect processing results. Subsequently, the process of producing an abstract XML Information Set (InfoSet) from a concrete XML document, e.g., by parsing it, **MUST** always result in the same abstract InfoSet, with the same element order per XML InfoSet (see [XML InfoSet] for additional information). Any intermediary processing may enhance the XML document, but it **MUST NOT** alter the abstract InfoSet element order (i.e., the XML elements comprising the document **MUST** stay in document order).

### 6.5 XML Encoding

When generating a new XML Document to this specification, a standard encoding **MUST** be properly expressed in the XML declaration. The actual encoding **SHOULD** be “ISO-8859-1” to provide the best compatibility with existing systems. However, the XML Document **MAY** use any well-known encoding, provided targeted downstream components have been properly tested. The following example shows the XML Declaration:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
```

### 6.6 Language Identification

In document processing, it is often useful to identify the natural or formal language in which the content is written. A special attribute named `xml:lang` **MAY** be inserted in documents to specify the language used in the contents and attribute values of any element in an XML document. See [XML] for the allowed values. Typically, the `xml:lang` attribute is utilized with an `xsd:string` type.

### 6.7 Deprecated Elements

There are several cases where elements are defined in the schemas that are intended to be deprecated. These elements are provided for easy backward compatibility with [ADI1.1]. In these cases, the element is defined with a required Boolean **deprecated** attribute, which **MUST** always be present and always be set to *true*. The following example illustrates a deprecated element in an instance document:

```
<Provider deprecated="true">CableLabs</Provider>
```

The deprecated attribute is reserved and **MUST NOT** be used for any other purpose in any extension to this specification. Also, it is not necessary and highly discouraged to include the deprecated attribute on an element when the value is false (not deprecated).

### 6.8 Extensibility

The base asset type defined in the Core namespace includes an **Ext** element, which allows any content (elements or attributes) from any namespace to be included. This makes it easy to extend or customize an asset in a predictable manner while enabling filters or transforms to be applied. Any consumer of XML documents following this specification can safely ignore contents of the Ext element unless they otherwise have an agreement with the XML document producer. There is no requirement by this specification that the contents of the Ext element be validated, regardless of whether a namespace is provided. The following example illustrates how the Ext element is used:

```
<Ext isAwesome="true" meaningOfLife="42">
  <!-- Could refer to a remote namespace -->
```

```
<Color xmlns=https://www.awesome-provider.com/colors/>Red</Color>
<!-- Could also look like an ADI 1.1 trial use field -->
<App_Data app="MOD" name="color" value="blue" />
</Ext>
```

Information routinely added to the Ext element could provide the groundwork for future permanent additions to this specification. However, new elements or attributes defined by future revisions to this specification will not be placed within the Ext element.

## 6.9 Enumerated Values

Enumerations are defined as XML schema enumerations only in cases where the set of possible values is strongly believed to be fixed. In several cases, enumerations are actually defined as an XML schema pattern, which provides a set of known standard values and allows private extensibility. To extend this type of enumeration, the value MUST be prefixed with the string “private”, indicating that this is a non-standard value and MAY be ignored or handled in a different way. An example of both a standard and non-standard enumerated value is:

```
<Audience>Children</Audience>
```

```
<Audience>private:Toddler</Audience>
```

## 6.10 Required Elements

There are several elements that are not explicitly required by the XML Schemas, but are nevertheless required to be provided for any conformant document that originated as per this specification. These elements are optional to allow conversion from ADI 1.1 documents, but MUST be provided for all new documents. These cases are annotated appropriately in the XML Schema.

## 6.11 Qualified Values

There are several cases in the specification where the value of an element requires additional context to define the set of possible values. In these cases, it is required to provide the scheme from which the value is provided. The attributes described in this section are accompanied with a preliminary list of schemes. The value of the attribute is not confined to the list, but it SHOULD be well understood by all parties consuming the XML.

### 6.11.1 identifierSystem Attribute

- **VOD 1.1** - To preserve compatibility with ADI 1.1 documents, an alternate identifier is provided to deterministically map to the ADI 1.1 ProviderID / AssetID. It MUST be provided in the following format: vod://{ProviderID}/{AssetID} and follow all the rules for Provider ID and Asset ID set forth in [ADI1.1].
- **ISAN** - Identifiers using this system MUST satisfy all of the requirements for an identifier specified at [ISAN].
- **Ad-ID** - Identifiers using this system MUST satisfy all of the requirements for an identifier specified at [Ad-ID].
- **ISCI** - Identifiers using this system MUST be recognizable as an Industry Standard Commercial Identifier.
- **ISRC** - Identifiers using this system MUST satisfy all of the requirements for an identifier specified at [ISRC].

### 6.11.2 ratingSystem Attribute

- **MPAA** - Includes ratings from [MPAA].
- **TV** - Includes ratings from [TV].
- **MSO** - Includes ratings specific to the target MSO. There is no predefined set or format for MSO ratings. They SHOULD be customized by the metadata creator to the expectations of the target MSO.

## 7 RELATION TO VOD 1.1

CableLabs previously defined the VOD 1.1 metadata specification ([Content1.1], [ADI1.1]) that has been used worldwide to support the distribution of Video-On-Demand content. This 3.0 specification is intended to replace that specification, and provide for more functionality and flexibility. This new flexibility will support the addition of new on-demand products beyond Video-On-Demand, additional capabilities to existing on demand services - such as advertising - and the addition of additional namespaces that may be required for advanced features.

Metadata 3.0 was designed to be able to support lossless translations of VOD 1.1 packages into Metadata 3.0 Offers. It will also support predictable translation of Metadata 3.0 offers into VOD 1.1 packages for backward compatibility. In that way, the industry will be able to use systems supporting both the old and new standards going forward.

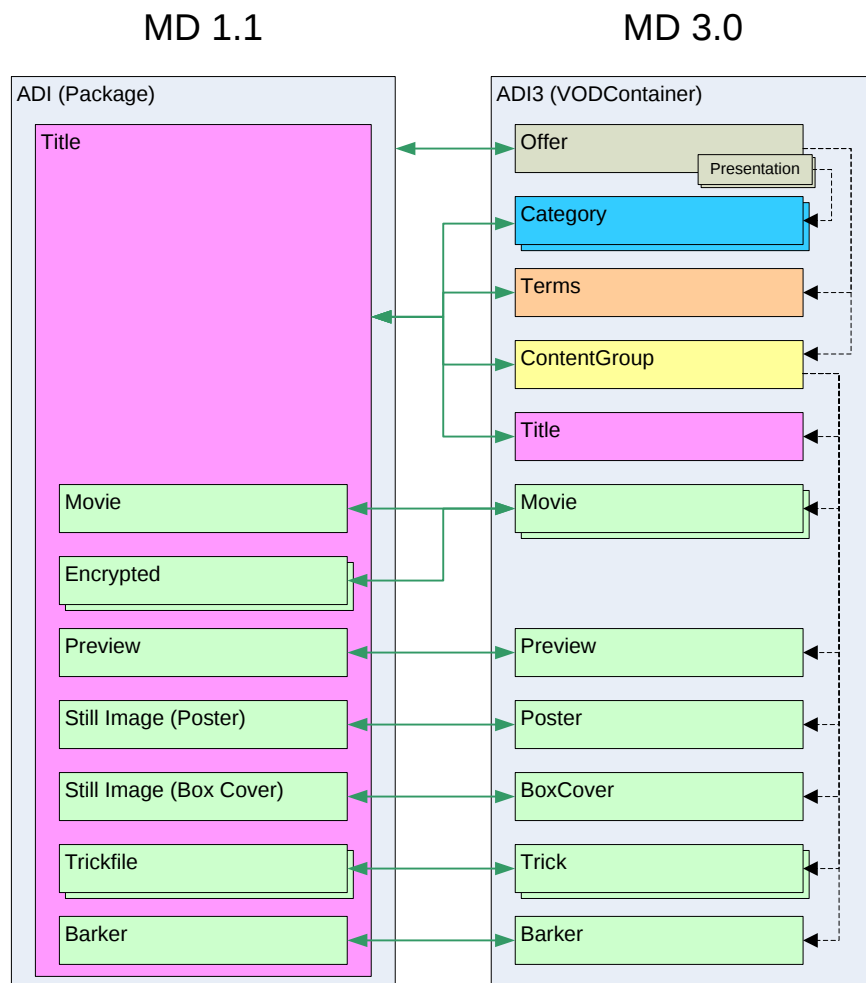
Metadata 3.0 assets break up VOD 1.1 assets into assets that have more focused functions than previously. The Metadata 3.0 assets correspond to VOD 1.1 assets roughly as follows:

**Table 3 - Comparison of Metadata 3.0, VOD1.1 Assets**

| <b>Metadata 3.0 Assets</b>           | <b>ADI/VOD 1.1 Assets</b> | <b>Comments</b>                                                                                                         |
|--------------------------------------|---------------------------|-------------------------------------------------------------------------------------------------------------------------|
| VODContainer                         | Package                   | This is a group of delivery elements.                                                                                   |
| Offer                                | Package                   | This is what is needed to present a Title and associated content for sale to a customer using a specified set of Terms. |
| ContentGroup                         | Package                   | This is a grouping of Title and associated content.                                                                     |
| Title                                | Title                     | Only the “facts” about a movie (actor, title, etc.).                                                                    |
| Terms                                | Title                     | Business requirements for use of the Offer.                                                                             |
| Content Types (Movie, Preview, etc.) | Content                   | Actual content file locations.                                                                                          |

XSL Transforms are provided along with this specification as a reference for converting 1.1 to 3.0 and vice versa. The individual mappings of standard values expressed in the XSL Transforms should be considered normative, while some aspects (e.g., ordering of 1.1 elements, handling of trial use fields, etc.) could be altered to fit a particular implementation. The XSL Transform could also be configured to normalize existing inconsistencies in 1.1 metadata that do not meet the specification.

## 7.1 Converting ADI 1.1 to 3.0



**Figure 2 - High level 1.1 ↔ 3.0 Mapping**

A major design goal of this specification is to allow ADI 1.1 messages to be deterministically converted to version 3.0 without loss of information. This is considered essential to industry adoption and smooth migration to this 3.0 specification. There are some constraints, however, that **MUST** be observed when considering an ADI 1.1 message for conversion.

- The message **MUST** adhere to [ADI1.1], including the overall structure, inclusion of required fields, adherence to specified formats, and maximum string lengths.
- The AMS elements **SHOULD NOT** include the Verb attribute with a value of DELETE. There is no equivalent message in this specification to communicate this directive. Assets with a Verb attribute of “DELETE” **SHOULD** be ignored when translating to version 3.0.
- Packages that have an “SVOD” app type **SHOULD** also have “SVOD” in the Product attribute of the package’s AMS element to preserve this value in version 3.0.

Additional artifacts of conversion:

- App Data values named “Type” are ignored when they conflict with the Asset\_Class.

- DateTime values that do not include a time component are modified after translation to include the time. End date values, such as `Licensing_Window_End`, are assumed to be the last moment of the day (23:59:59), while most other values are assumed to be the beginning of the day (00:00:00). Converting from 1.1 to 3.0 and back to 1.1 may not preserve the exact string value in the original datetime.
- The order of elements and attributes are not preserved through conversion to 3.0 and back to ADI 1.1.
- The ADI 1.1 title asset is mapped to several 3.0 asset elements (see Figure 2) - including Title, Offer, ContentGroup, Terms and Category.
- The ADI 1.1 encrypted asset is mapped to a 3.0 Movie asset with an EncryptionInfo element.
- All ADI 1.1 trial-use fields (that is, fields not indicated in the specification for that asset type) are mapped to the Ext element of the corresponding 3.0 asset.
- The `Licensing_Window_Start` and `Licensing_Window_End` App Data values map to the `startDateTime` and `endDateTime` attributes respectively of every 3.0 asset.
- The ISAN App Data value maps to an AlternateId element with an identifierSystem of “ISAN”.
- The values for `ProviderId` and `AssetId` under AMS maps to an AlternateId element with an identifierSystem of “VOD1.1” and a format of `vod://{ProviderId}/{AssetId}`. This deterministic mapping ensures that these values can be recovered when converting back from 3.0 to 1.1.

## 7.2 Converting MD 3.0 to ADI 1.1

The full set of features available in this specification cannot be represented using ADI 1.1. However, observing the following constraints will allow the message to be successfully converted.

- The ADI3 container MUST contain exactly one Offer element. There is no support in ADI 1.1 for representing multiple offers in a single message.
- The Offer MUST reference one Terms, exactly one ContentGroup, and one or more Categories. The referenced elements MUST be present in the same message as the Offer. There are no constraints on the PromotionalContentGroup, but it is ignored when converting to ADI 1.1.
- The ContentGroup referenced by the Offer MUST reference a Title that is present in the same message. The ContentGroup MUST also reference at least one content type that is present in the same message. The content types may be a Movie, Preview, Barker, BoxCover, Poster or Trick. Other content types will be ignored.
- Multiple Presentation elements within the Offer MUST have identical values for the DisplayAsNew and DisplayAsLastChance elements.
- There MUST be one LocalizableTitle element and it MUST be in English (`xml:lang="en"`). ADI 1.1 does not provide support for multiple languages.
- All asset types MUST contain an AlternateId with an identifierSystem of “VOD1.1”, and the value MUST be in the format of `vod://{ProviderId}/{AssetId}` with `ProviderId` being no more than 19 characters and `AssetId` following the ADI 1.1 rule of four alpha characters followed by 16 numeric digits.

## Appendix I Examples (informative)

### A.1 VOD Movie

The following example includes a VOD movie along with associated preview, box cover and encrypted assets.

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<ADI3 xmlns="http://www.cablelabs.com/namespaces/metadata/xsd/vod30/1"
xmlns:content="http://www.cablelabs.com/namespaces/metadata/xsd/content/1"
xmlns:core="http://www.cablelabs.com/namespaces/metadata/xsd/core/1"
xmlns:offer="http://www.cablelabs.com/namespaces/metadata/xsd/offer/1"
xmlns:terms="http://www.cablelabs.com/namespaces/metadata/xsd/terms/1"
xmlns:title="http://www.cablelabs.com/namespaces/metadata/xsd/title/1"
xmlns:vod30="http://www.cablelabs.com/namespaces/metadata/xsd/vod30/1"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Offer urId="indemand.com/Offer/UNVA2001081701004000" providerVersionNum="1"
internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z" startDateTime="2002-02-
01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
    <core:AlternatId
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701004000</core:AlternatId>
    <core:AssetName deprecated="true">The_Titanic</core:AssetName>
    <core:Product deprecated="true">First-Run</core:Product>
    <core:Provider deprecated="true">InDemand</core:Provider>
    <core:Description deprecated="true">The Titanic asset package</core:Description>
    <core:Ext/>
    <offer:Presentation>
      <offer:CategoryRef urId="indemand.com/Category/InDemand/Movies A-Z"/>
      <offer:DisplayAsNew>P7D</offer:DisplayAsNew>
      <offer:DisplayAsLastChance>P7D</offer:DisplayAsLastChance>
    </offer:Presentation>
    <offer:PromotionalContentGroupRef
urId="indemand.com/ContentGroup/UNVA2001081701004001"/>
    <offer:ProviderContentTier>InDemand1</offer:ProviderContentTier>
    <offer:BillingId>56789</offer:BillingId>
    <offer:TermsRef urId="indemand.com/Terms/UNVA2001081701004001"/>
    <offer:ContentGroupRef urId="indemand.com/ContentGroup/UNVA2001081701004001"/>
  </Offer>
  <Title urId="indemand.com/Title/UNVA2001081701004001" providerVersionNum="1"
internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z" startDateTime="2002-02-
01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
    <core:AlternatId
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701004001</core:AlternatId>
    <core:AlternatId identifierSystem="ISAN">1881-66C7-3420-000-7-9F3A-02450-
U</core:AlternatId>
    <core:ProviderQAContact>John Doe, JDoe@InDemand.com</core:ProviderQAContact>
    <core:AssetName deprecated="true">The_Titanic_Title</core:AssetName>
    <core:Product deprecated="true">First-Run</core:Product>
    <core:Provider deprecated="true">InDemand</core:Provider>
    <core:Description deprecated="true">The Titanic title metadata</core:Description>
    <core:Ext>
      <App_Data App="MOD" Name="Producer" Value="Cameron,James"/>
    </core:Ext>
    <title:LocalizableTitle>
```

```

<title>TitleSortName>Titanic, The</title>TitleSortName>
<title>TitleBrief>The Titanic</title>TitleBrief>
<title>TitleMedium>The Titanic</title>TitleMedium>
<title>TitleLong>The Titanic</title>TitleLong>
<title:SummaryShort>Fictional romantic tale of a rich girl and poor boy who meet on the ill-
fated voyage of the 'unsinkable' ship</title:SummaryShort>
<title:SummaryMedium>Fictional romantic tale of rich girl and poor boy who meet on the ill-
fated voyage of the 'unsinkable' ship</title:SummaryMedium>
<title:SummaryLong>Fictional romantic tale of a rich girl and poor boy who meet on the ill-
fated voyage of the 'unsinkable' ship</title:SummaryLong>
<title:ActorDisplay>Kate Winslet,Leonardo DiCaprio, Billy Zane</title:ActorDisplay>
<title:Actor fullName="Kate Winslet" firstName="Kate" lastName="Winslet"
sortableName="Winslet,Kate"/>
<title:Actor fullName="Leonardo DiCaprio" firstName="Leonardo" lastName="DiCaprio"
sortableName="DiCaprio,Leonardo"/>
<title:Actor fullName="Billy Zane" firstName="Billy" lastName="Zane"
sortableName="Zane,Billy"/>
<title:WriterDisplay>James Cameron</title:WriterDisplay>
<title:Director fullName="James Cameron" firstName="James" lastName="Cameron"
sortableName="Cameron,James"/>
<title:StudioDisplay>Paramount</title:StudioDisplay>
<title:RecordingArtist>Celine Dion</title:RecordingArtist>
<title:SongTitle>My Heart Will Go On</title:SongTitle>
<title:EpisodeName deprecated="true">Collision With destiny</title:EpisodeName>
<title:EpisodeID deprecated="true">The only one</title:EpisodeID>
<title:Chapter heading="Opening Scene" timeCode="00:00:02:00"/>
<title:Chapter heading="They Meet" timeCode="00:15:12:00"/>
<title:Chapter heading="The Collision" timeCode="02:03:06:00"/>
<title:Chapter heading="She Goes Under" timeCode="02:55:15:00"/>
<title:Chapter heading="Final Scene" timeCode="03:02:09:00"/>
</title:LocalizableTitle>
<title:Rating ratingSystem="MPAA">R</title:Rating>
<title:Advisory>AL</title:Advisory>
<title:Advisory>N</title:Advisory>
<title:IsClosedCaptioning>false</title:IsClosedCaptioning>
<title:DisplayRunTime>03:14</title:DisplayRunTime>
<title:Year>1997</title:Year>
<title:CountryOfOrigin>US</title:CountryOfOrigin>
<title:Genre>Drama</title:Genre>
<title:Genre>Romance</title:Genre>
<title>ShowType>Movie</title>ShowType>
<title:IsSeasonPremier deprecated="true">false</title:IsSeasonPremier>
<title:IsSeasonFinale deprecated="true">false</title:IsSeasonFinale>
<title:IsEncryptionRequired>true</title:IsEncryptionRequired>
<title:BoxOffice>1835000000</title:BoxOffice>
<title:ProgrammerCallLetters>IND</title:ProgrammerCallLetters>
</Title>
<ContentGroup urid="indemand.com/ContentGroup/UNVA2001081701004001"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z"
startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
  <core:AlternatId
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701004001</core:AlternatId>
  <offer:TitleRef urid="indemand.com/Title/UNVA2001081701004001"/>
  <offer:MovieRef urid="indemand.com/Asset/UNVA2001081701004002"/>
  <offer:PreviewRef urid="indemand.com/Asset/UNVA2001081701004003"/>
  <offer:BoxCoverRef urid="indemand.com/Asset/UNVA2001081701004004"/>

```

```

    <offer:MovieRef urlId="indemand.com/Asset/UNVA2001081701004005"/>
  </ContentGroup>
  <Terms urlId="indemand.com/Terms/UNVA2001081701004001" providerVersionNum="1"
internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z" startDateTime="2002-02-
01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
    <core:AlternatId
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701004001</core:AlternatId>
    <terms:ContractName>InDemand</terms:ContractName>
    <terms:BillingGracePeriod>PT300S</terms:BillingGracePeriod>
    <terms:RentalPeriod>P00DT24H00M</terms:RentalPeriod>
    <terms:HomeVideoWindow>P1000D</terms:HomeVideoWindow>
    <terms:SubscriberViewLimit startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-02-
28T23:59:59Z" maximumViews="5"/>
    <terms:SubscriberViewLimit startDateTime="2002-03-01T00:00:00Z" endDateTime="2002-03-
31T23:59:59Z" maximumViews="5"/>
    <terms:SuggestedPrice>5.95</terms:SuggestedPrice>
    <terms:DistributorRoyaltyInfo>
      <terms:OrganizationName>InDemand</terms:OrganizationName>
      <terms:RoyaltyPercent>52.5</terms:RoyaltyPercent>
      <terms:RoyaltyMinimum>3.124</terms:RoyaltyMinimum>
      <terms:RoyaltyFlatRate>3.155</terms:RoyaltyFlatRate>
    </terms:DistributorRoyaltyInfo>
    <terms:StudioRoyaltyInfo>
      <terms:OrganizationName>Paramount</terms:OrganizationName>
      <terms:OrganizationCode>PAR</terms:OrganizationCode>
      <terms:RoyaltyPercent>47.5</terms:RoyaltyPercent>
      <terms:RoyaltyMinimum>2.826</terms:RoyaltyMinimum>
      <terms:RoyaltyFlatRate>2.795</terms:RoyaltyFlatRate>
    </terms:StudioRoyaltyInfo>
  </Terms>
  <Category urlId="indemand.com/Category/InDemand/Movies A-Z" providerVersionNum="1"
internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z" startDateTime="2002-02-
01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
    <core:AlternatId
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701004001</core:AlternatId>
    <offer:CategoryPath>InDemand/Movies A-Z</offer:CategoryPath>
  </Category>
  <Movie urlId="indemand.com/Asset/UNVA2001081701004002" providerVersionNum="1"
internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z" startDateTime="2002-02-
01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
    <core:AlternatId
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701004002</core:AlternatId>
    <core:AssetName deprecated="true">The_Titanic.mpg</core:AssetName>
    <core:Product deprecated="true">First-Run</core:Product>
    <core:Provider deprecated="true">InDemand</core:Provider>
    <core:Description deprecated="true">The Titanic Movie</core:Description>
    <core:Ext/>
    <content:SourceUrl>The_Titanic.mpg</content:SourceUrl>
    <content:ContentFileSize>3907840625</content:ContentFileSize>

    <content:ContentChecksum>12558D3269D25852BD26548DC2654CA</content:ContentChecksum
>

    <content:PropagationPriority>1</content:PropagationPriority>
    <content:AudioType>Dolby Digital</content:AudioType>
    <content:ScreenFormat>Widescreen</content:ScreenFormat>
    <content:Duration>PT03H14M00S</content:Duration>

```

```

    <content:Language>en</content:Language>
    <content:SubtitleLanguage>es</content:SubtitleLanguage>
    <content:DubbedLanguage>es</content:DubbedLanguage>
    <content:Rating ratingSystem="MPAA">R</content:Rating>
    <content:CopyControlInfo>
      <content:IsCopyProtection>>false</content:IsCopyProtection>
    </content:CopyControlInfo>
  </Movie>
  <Preview urild="indemand.com/Asset/UNVA2001081701004003" providerVersionNum="1"
internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z" startDateTime="2002-02-
01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
    <core:Alternateld
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701004003</core:Alternateld>
    <core:AssetName deprecated="true">The_Titanic_Preview.mpg</core:AssetName>
    <core:Product deprecated="true">First-Run</core:Product>
    <core:Provider deprecated="true">InDemand</core:Provider>
    <core:Description deprecated="true">The Titanic Preview</core:Description>
    <core:Ext/>
    <content:SourceUrl>The_Titanic_Preview.mpg</content:SourceUrl>
    <content:ContentFileSize>25284375</content:ContentFileSize>

    <content:ContentChecksum>A1258D3269D25852BD26548DC2654C1</content:ContentChecksum
>
    <content:PropagationPriority>1</content:PropagationPriority>
    <content:AudioType>Dolby Digital</content:AudioType>
    <content:ScreenFormat>Widescreen</content:ScreenFormat>
    <content:Duration>PT00H00M45S</content:Duration>
    <content:Language>en</content:Language>
    <content:SubtitleLanguage>es</content:SubtitleLanguage>
    <content:DubbedLanguage>es</content:DubbedLanguage>
    <content:Rating ratingSystem="MPAA">G</content:Rating>
  </Preview>
  <BoxCover urild="indemand.com/Asset/UNVA2001081701004004" providerVersionNum="1"
internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z" startDateTime="2002-02-
01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
    <core:Alternateld
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701004004</core:Alternateld>
    <core:AssetName deprecated="true">The_Titanic_Box_Cover.bmp</core:AssetName>
    <core:Product deprecated="true">First-Run</core:Product>
    <core:Provider deprecated="true">InDemand</core:Provider>
    <core:Description deprecated="true">The Titanic Box Cover</core:Description>
    <core:Ext/>
    <content:SourceUrl>The_Titanic_Box_Cover.bmp</content:SourceUrl>
    <content:ContentFileSize>15235</content:ContentFileSize>

    <content:ContentChecksum>B3258D3269D25852BD26548DC2654CD</content:ContentCheckSu
m>
    <content:PropagationPriority>1</content:PropagationPriority>
    <content:X_Resolution>320</content:X_Resolution>
    <content:Y_Resolution>240</content:Y_Resolution>
  </BoxCover>
  <Movie urild="indemand.com/Asset/UNVA2001081701004005" providerVersionNum="1"
internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z" startDateTime="2002-02-
01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
    <core:Alternateld
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701004005</core:Alternateld>

```

```

<core:AssetName deprecated="true">The_Titanic_Encrypted.mpg</core:AssetName>
<core:Product deprecated="true">First-Run</core:Product>
<core:Provider deprecated="true">InDemand</core:Provider>
<core:Description deprecated="true">The Titanic Movie Encrypted</core:Description>
<core:Ext/>
<content:MasterSourceRef urlId="indemand.com/Asset/UNVA2001081701004002"/>
<content:SourceUrl>The_Titanic_Encrypted.mpg</content:SourceUrl>
<content:ContentSize>3907840625</content:ContentSize>

<content:ContentChecksum>DC2654CA12558D3269D25852BD26548</content:ContentChecksum>
>
  <content:PropagationPriority>1</content:PropagationPriority>
  <content:AudioType>Dolby Digital</content:AudioType>
  <content:ScreenFormat>Widescreen</content:ScreenFormat>
  <content:Duration>PT03H14M00S</content:Duration>
  <content:Language>en</content:Language>
  <content:SubtitleLanguage>es</content:SubtitleLanguage>
  <content:DubbedLanguage>es</content:DubbedLanguage>
  <content:Rating ratingSystem="MPAA">R</content:Rating>
  <content:EncryptionInfo>
    <content:ReceiverType>SomeReceiverType</content:ReceiverType>
  </content:EncryptionInfo>
</Movie>
</ADI3>

```

## A.2 Subscription-VOD TV Show

The following example is for a TV Show.

```

<?xml version="1.0" encoding="ISO-8859-1"?>
<ADI3 xmlns="http://www.cablelabs.com/namespaces/metadata/xsd/vod30/1"
xmlns:content="http://www.cablelabs.com/namespaces/metadata/xsd/content/1"
xmlns:core="http://www.cablelabs.com/namespaces/metadata/xsd/core/1"
xmlns:offer="http://www.cablelabs.com/namespaces/metadata/xsd/offer/1"
xmlns:terms="http://www.cablelabs.com/namespaces/metadata/xsd/terms/1"
xmlns:title="http://www.cablelabs.com/namespaces/metadata/xsd/title/1"
xmlns:vod30="http://www.cablelabs.com/namespaces/metadata/xsd/vod30/1"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Offer urlId="indemand.com/Offer/UNVA2001081701006000" providerVersionNum="1"
internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z" startDateTime="2002-02-
01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
    <core:AlternateId
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701006000</core:AlternateId>
    <core:AssetName deprecated="true">Arli$$_35</core:AssetName>
    <core:Product deprecated="true">HOD</core:Product>
    <core:Provider deprecated="true">HBO</core:Provider>
    <core:Description deprecated="true">Arli$$_35 asset package</core:Description>
    <core:Ext/>
    <offer:Presentation>
      <offer:CategoryRef urlId="indemand.com/Category/HBO/HBO Series/Arli$$"/>
    </offer:Presentation>
    <offer:PromotionalContentGroupRef
urlId="indemand.com/ContentGroup/UNVA2001081701006001"/>
    <offer:ProviderContentTier>HBO1</offer:ProviderContentTier>
    <offer:BillingId>01429</offer:BillingId>
  </Offer>

```

```

    <offer:TermsRef urild="indemand.com/Terms/UNVA2001081701006001"/>
    <offer:ContentGroupRef urild="indemand.com/ContentGroup/UNVA2001081701006001"/>
  </Offer>
  <Title urild="indemand.com/Title/UNVA2001081701006001" providerVersionNum="1"
internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z" startDateTime="2002-02-
01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
    <core:Alternateld
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701006001</core:Alternateld>
    <core:AssetName deprecated="true">Arlis$ 35 Title</core:AssetName>
    <core:Product deprecated="true">HOD</core:Product>
    <core:Provider deprecated="true">HBO</core:Provider>
    <core:Description deprecated="true">Arlis$ 35 title metadata</core:Description>
    <core:Ext/>
    <title:LocalizableTitle>
      <title:TitleSortName>Arlis$ 35</title:TitleSortName>
      <title:TitleBrief>Arlis$ 35</title:TitleBrief>
      <title:TitleMedium>Arlis$ 35</title:TitleMedium>
      <title:TitleLong>Arlis$ 35</title:TitleLong>
      <title:SummaryShort>'Cause and Effect.' Arliss has a health scare while Kirby tries to
'assist' an old lady with her baseball memorabilia.</title:SummaryShort>
      <title:Actor fullName="Robert Wuhl" firstName="Robert" lastName="Wuhl"
sortableName="Wuhl,Robert"/>
      <title:Actor fullName="Jim Turner" firstName="Jim" lastName="Turner"
sortableName="Turner,Jim"/>
      <title:Actor fullName="Sandra Oh" firstName="Sandra" lastName="Oh"
sortableName="Oh,Sandra"/>
      <title:Actor fullName="Michael Boatman" firstName="Michael" lastName="Boatman"
sortableName="Boatman,Michael"/>
      <title:RecordingArtist>Dusty Springfield</title:RecordingArtist>
      <title:SongTitle>I Only Want To Be With You</title:SongTitle>
    </title:LocalizableTitle>
    <title:Rating ratingSystem="TV">TV-MA</title:Rating>
    <title:Advisory>AL</title:Advisory>
    <title:DisplayRunTime>00:29</title:DisplayRunTime>
    <title:Year>1999</title:Year>
    <title:Genre>Comedy</title:Genre>
    <title:ShowType>private:UNKNOWN</title:ShowType>
    <title:IsEncryptionRequired>>false</title:IsEncryptionRequired>
    <title:ProgrammerCallLetters>HBO</title:ProgrammerCallLetters>
  </Title>
  <ContentGroup urild="indemand.com/ContentGroup/UNVA2001081701006001"
providerVersionNum="1" internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z"
startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
    <core:Alternateld
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701006001</core:Alternateld>
    <offer:TitleRef urild="indemand.com/Title/UNVA2001081701006001"/>
    <offer:MovieRef urild="indemand.com/Asset/UNVA2001081701006002"/>
    <offer:PreviewRef urild="indemand.com/Asset/UNVA2001081701006003"/>
    <offer:BoxCoverRef urild="indemand.com/Asset/UNVA2001081701006004"/>
  </ContentGroup>
  <Terms urild="indemand.com/Terms/UNVA2001081701006001" providerVersionNum="1"
internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z" startDateTime="2002-02-
01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
    <core:Alternateld
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701006001</core:Alternateld>

```

```

    <terms:SubscriberViewLimit startDateTime="2002-02-01T00:00:00Z" endDateTime="2002-02-
28T23:59:59Z" maximumViews="5"/>
    <terms:SubscriberViewLimit startDateTime="2002-03-01T00:00:00Z" endDateTime="2002-03-
31T23:59:59Z" maximumViews="6"/>
    <terms:SuggestedPrice>0.00</terms:SuggestedPrice>
  </Terms>
  <Category urild="indemand.com/Category/HBO/HBO Series/Arli$$" providerVersionNum="1"
internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z" startDateTime="2002-02-
01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
    <core:Alternateld
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701006001</core:Alternateld>
    <offer:CategoryPath>HBO/HBO Series/Arli$$</offer:CategoryPath>
  </Category>
  <Movie urild="indemand.com/Asset/UNVA2001081701006002" providerVersionNum="1"
internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z" startDateTime="2002-02-
01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
    <core:Alternateld
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701006002</core:Alternateld>
    <core:AssetName deprecated="true">Arli$$_35.mpg</core:AssetName>
    <core:Product deprecated="true">HOD</core:Product>
    <core:Provider deprecated="true">HBO</core:Provider>
    <core:Description deprecated="true">Arli$$_35 Movie</core:Description>
    <core:Ext/>
    <content:SourceUrl>Arli_35.mpg</content:SourceUrl>
    <content:ContentSize>3907840625</content:ContentSize>

    <content:ContentChecksum>12558D3269D25852BD26548DC2654CA</content:ContentChecksum
>

    <content:AudioType>Dolby Digital</content:AudioType>
    <content:Duration>PT00H29M29S</content:Duration>
    <content:Rating ratingSystem="TV">TV-MA</content:Rating>
  </Movie>
  <Preview urild="indemand.com/Asset/UNVA2001081701006003" providerVersionNum="1"
internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z" startDateTime="2002-02-
01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
    <core:Alternateld
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701006003</core:Alternateld>
    <core:AssetName deprecated="true">Arli$$_35_Preview.mpg</core:AssetName>
    <core:Product deprecated="true">HOD</core:Product>
    <core:Provider deprecated="true">HBO</core:Provider>
    <core:Description deprecated="true">Arli$$_35 Preview</core:Description>
    <core:Ext/>
    <content:SourceUrl>Arli_35_Preview.mpg</content:SourceUrl>
    <content:ContentSize>25284375</content:ContentSize>

    <content:ContentChecksum>A1258D3269D25852BD26548DC2654C1</content:ContentChecksum
>

    <content:AudioType>Dolby Digital</content:AudioType>
    <content:Duration>PT00H01M00S</content:Duration>
    <content:Rating ratingSystem="TV">TV-MA</content:Rating>
  </Preview>
  <BoxCover urild="indemand.com/Asset/UNVA2001081701006004" providerVersionNum="1"
internalVersionNum="0" creationDateTime="2002-01-11T00:00:00Z" startDateTime="2002-02-
01T00:00:00Z" endDateTime="2002-03-31T11:59:59Z">
    <core:Alternateld
identifierSystem="VOD1.1">vod://indemand.com/UNVA2001081701006004</core:Alternateld>

```

```

    <core:AssetName deprecated="true">Arli$$_35_Box_Cover.bmp</core:AssetName>
    <core:Product deprecated="true">HOD</core:Product>
    <core:Provider deprecated="true">HBO</core:Provider>
    <core:Description deprecated="true">Arli$$_35 Box Cover</core:Description>
    <core:Ext/>
    <content:SourceUrl>Arli_35_Box_Cover.bmp</content:SourceUrl>
    <content:ContentFileSize>15235</content:ContentFileSize>

    <content:ContentChecksum>B3258D3269D25852BD26548DC2654CD</content:ContentCheckSu
m>
    <content:X_Resolution>320</content:X_Resolution>
    <content:Y_Resolution>240</content:Y_Resolution>
  </BoxCover>
</ADI3>

```

### A.3 Barker

The following example is for a barker.

```

<?xml version="1.0" encoding="ISO-8859-1"?>
<ADI3 xmlns="http://www.cablelabs.com/namespaces/metadata/xsd/vod30/1"
xmlns:content="http://www.cablelabs.com/namespaces/metadata/xsd/content/1"
xmlns:core="http://www.cablelabs.com/namespaces/metadata/xsd/core/1"
xmlns:offer="http://www.cablelabs.com/namespaces/metadata/xsd/offer/1"
xmlns:terms="http://www.cablelabs.com/namespaces/metadata/xsd/terms/1"
xmlns:title="http://www.cablelabs.com/namespaces/metadata/xsd/title/1"
xmlns:vod30="http://www.cablelabs.com/namespaces/metadata/xsd/vod30/1"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Offer urild="tvn.com/Offer/TVN55583PKG000000000" providerVersionNum="1"
internalVersionNum="0" creationDateTime="18-Jun-2004Z" startDateTime="2004-06-13T00:00:00Z"
endTime="2004-07-31T23:59:59Z">
    <core:AlternateId
identifierSystem="VOD1.1">vod://tvn.com/TVN55583PKG000000000</core:AlternateId>
    <core:AssetName
deprecated="true">ComcastBarTVGuidConc2_55583_Package</core:AssetName>
    <core:Product deprecated="true">MOD</core:Product>
    <core:Provider deprecated="true">150</core:Provider>
    <core:Description deprecated="true">ComcastBarTVGuid/Conc2 Package</core:Description>
    <core:Ext/>
    <offer:Presentation>
      <offer:CategoryRef urild="tvn.com/Category/$ROOT"/>
    </offer:Presentation>
    <offer:PromotionalContentGroupRef urild="tvn.com/ContentGroup/TVN55583TIT000000000"/>
    <offer:BillingId>00000</offer:BillingId>
    <offer:TermsRef urild="tvn.com/Terms/TVN55583TIT000000000"/>
    <offer:ContentGroupRef urild="tvn.com/ContentGroup/TVN55583TIT000000000"/>
  </Offer>
  <Title urild="tvn.com/Title/TVN55583TIT000000000" providerVersionNum="1"
internalVersionNum="0" creationDateTime="18-Jun-2004Z" startDateTime="2004-06-13T00:00:00Z"
endTime="2004-07-31T23:59:59Z">
    <core:AlternateId
identifierSystem="VOD1.1">vod://tvn.com/TVN55583TIT000000000</core:AlternateId>
    <core:AssetName
deprecated="true">ComcastBarTVGuidConc2_55583_Title</core:AssetName>
    <core:Product deprecated="true">MOD</core:Product>

```

```

<core:Provider deprecated="true">150</core:Provider>
<core:Description deprecated="true">ComcastBarTVGuid/Conc2 Metadata</core:Description>
<core:Ext/>
<title:LocalizableTitle>
  <title:TitleBrief>Comcast Barker TVGu</title:TitleBrief>
  <title:TitleMedium>Comcast Barker TVGuide Concurrent/M</title:TitleMedium>
  <title:TitleLong>Comcast Barker TVGuide Concurrent/Moto2</title:TitleLong>
  <title:SummaryShort>Video On Demand offers you so many choices of entertainment,
where you're in control. Check out what's available right now!</title:SummaryShort>
  <title:StudioDisplay>TVN Entertainment</title:StudioDisplay>
</title:LocalizableTitle>
<title:Rating ratingSystem="TV">TVG</title:Rating>
<title:DisplayRunTime>00:07</title:DisplayRunTime>
<title:Year>2004</title:Year>
<title:Genre>private:UNKNOWN</title:Genre>
<title:ShowType>private:UNKNOWN</title:ShowType>
</Title>
<ContentGroup urild="tvn.com/ContentGroup/TVN55583TIT000000000" providerVersionNum="1"
internalVersionNum="0" creationDateTime="18-Jun-2004Z" startDateTime="2004-06-13T00:00:00Z"
endDateTime="2004-07-31T23:59:59Z">
  <core:AlternateId
identifierSystem="VOD1.1">vod://tvn.com/TVN55583TIT000000000</core:AlternateId>
  <offer:TitleRef urild="tvn.com/Title/TVN55583TIT000000000"/>
  <offer:BarkerRef urild="tvn.com/Asset/TVN55583BAR000000000"/>
</ContentGroup>
<Terms urild="tvn.com/Terms/TVN55583TIT000000000" providerVersionNum="1"
internalVersionNum="0" creationDateTime="18-Jun-2004Z" startDateTime="2004-06-13T00:00:00Z"
endDateTime="2004-07-31T23:59:59Z">
  <core:AlternateId
identifierSystem="VOD1.1">vod://tvn.com/TVN55583TIT000000000</core:AlternateId>
  <terms:SuggestedPrice>0.00</terms:SuggestedPrice>
</Terms>
<Category urild="tvn.com/Category/$ROOT" providerVersionNum="1" internalVersionNum="0"
creationDateTime="18-Jun-2004Z" startDateTime="2004-06-13T00:00:00Z" endDateTime="2004-07-
31T23:59:59Z">
  <core:AlternateId
identifierSystem="VOD1.1">vod://tvn.com/TVN55583TIT000000000</core:AlternateId>
  <offer:CategoryPath>$ROOT</offer:CategoryPath>
</Category>
<Barker urild="tvn.com/Asset/TVN55583BAR000000000" providerVersionNum="1"
internalVersionNum="0" creationDateTime="18-Jun-2004Z" startDateTime="2004-06-13T00:00:00Z"
endDateTime="2004-07-31T23:59:59Z">
  <core:AlternateId
identifierSystem="VOD1.1">vod://tvn.com/TVN55583BAR000000000</core:AlternateId>
  <core:AssetName
deprecated="true">ComcastBarTVGuidConc2_55583_Feature</core:AssetName>
  <core:Product deprecated="true">MOD</core:Product>
  <core:Provider deprecated="true">150</core:Provider>
  <core:Description deprecated="true">ComcastBarTVGuid/Conc2 Feature</core:Description>
  <core:Ext/>
  <content:SourceUrl>TVNX5558300000000000_barker.mpg</content:SourceUrl>
  <content:ContentFileSize>173529324</content:ContentFileSize>

  <content:ContentChecksum>7d65bb15b26a7a470079d616fac2d462</content:ContentChecksum>
  <content:AudioType>AC-3</content:AudioType>
  <content:Duration>PT00H06M53S</content:Duration>

```

```
<content:Language>en</content:Language>
<content:SubtitleLanguage>en</content:SubtitleLanguage>
<content:DubbedLanguage>en</content:DubbedLanguage>
<content:Rating ratingSystem="TV">TVG</content:Rating>
</Barker>
</ADI3>
```

---