



MediaHub Oi – (S)VOD Ingest/Update

(S)VOD Ingest/Update Guide and Reference

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Document Version History

Version	Date	Sections
3.4.1	17-11-2017	[5.9.2; 5.3.2] Xml nodes specification
3.5.0	29-01-2018	[5.10.2; 5.10.1; 3.1.1; 3.1.2] Cross reference review; [5.5; 5.11.2] Xml nodes specification
4.1.0	20-07-2018	OiPlay 2.0 specifications
4.4.0	05-12-2018	Audio tracks specifications review [5.8.4]
4.5.0	01-03-2019	Add Cablelabs information and folder structure for ingest.
4.5.1	01-08-2019	Add Cablelabs complementary information.
4.5.2	19-08-2019	Add Cablelabs complementary information.
4.5.5	05-02-2020	Parental Rating Description complementary information

1 Summary

This document describes how to create metadata for video on demand (VOD) assets and subscription video on demand (SVOD) assets in MediaRoom and MediaHub platforms. Including a reference for the metadata.

2 VOD Ingest Workflow

Ingest workflow defines the full VOD ingest and deploy process. The actors involved are: VOD aggregators/studios, Oi Payout and Programming teams.

The entry point of the ingest workflow for all VOD content is the VODFTP Server. Content aggregators/studios/providers are responsible to provide VOD packages according the specification in their VODFTP Server accounts.

Internal Oi processes are responsible to discover new VOD packages in VODFTP Server and starts internal workflows in order to prepare VODs for rental and play in the different channels (IPTV, OTT/Multiscreen and DTH PDL).

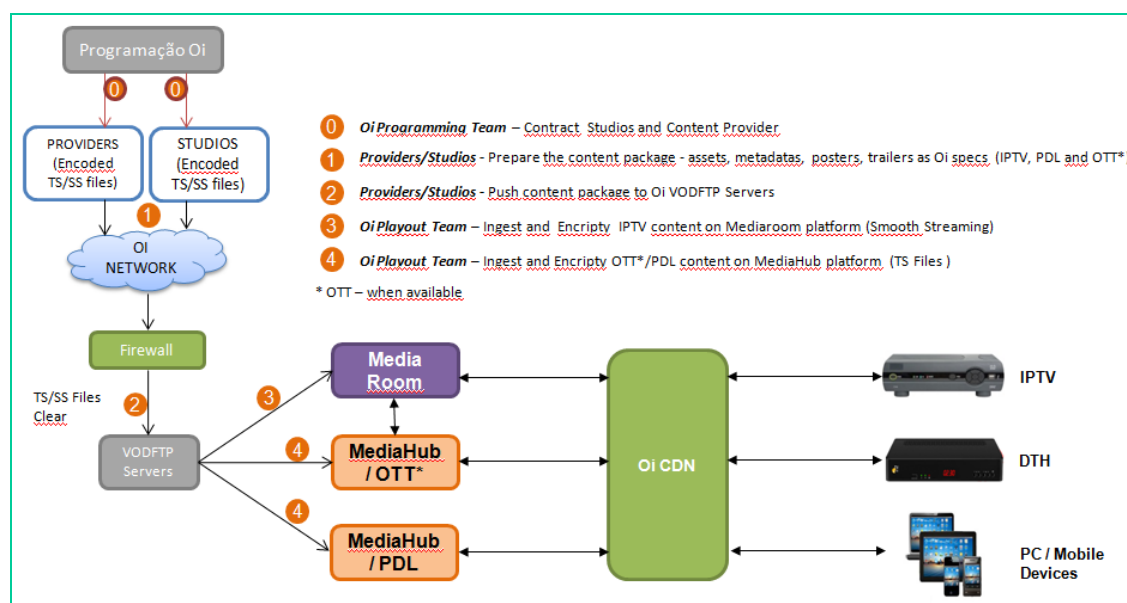
Internal workflows are responsible for execute:

- i) Media files processing (Apply DRM technology and transfer to streaming origin servers)
- ii) Content Metadata processing and ingest
- iii) Content Posters processing
- iv) Publish content in the appropriate VOD catalogues

NOTES:

1. Is pre-requisite for Oi ingest Workflow that content must be provisioned first in the IPTV catalogue. Only after successfully provisioned and deployed in IPTV platform VOD content could be provisioned and deployed in OTT and/or DTH PDL channels/technologies.
2. The content must be unique across all Oi VOD services platforms. This implies that content id must be exactly the same in all platforms (OTT, IPTV and PDL)

Main ingest workflows are depicted in the following image.



3 VOD Package Specification

The following sections specifies the package to be delivered by Oi VOD/SVOD providers regarding, file name conventions, package structure and file types.

3.1 VOD Folder Structure Ingest

In case of contents that must be transcoded (Mezzanine and Cablelabs), providers need to send contents, respecting the following folders structures:

- ProviderID-AssetID
 - Main
 - *Main video content*
 - Trailer (opt)
 - *Trailer video content (opt)*
 - Poster
 - *PDL/OTT poster*
 - *IPTV poster*
 - metadata.xml

In case of contents on the final format, providers must send content respecting the following folders structures:

- ProviderID-AssetID
 - IPTV
 - *IPTV files, like .ism, isma, ismv, etc*
 - *metadata.xml*
 - PDL
 - Main
 - *PDL and/or OTT main video files*
 - Trailer (opt)
 - *PDL and/or OTT trailer video files (opt)*
 - Poster
 - *PDL and/or OTT poster files*
 - *metadata.xml*

Note 1: It is not necessary to send the IPTV and PDL / OTT contents at the same time; it is possible to send only one of them, as long as it obeys the rules of the Oi TV platforms.

Note 2: According to the Oi TV ingest rules, PDL / OTT can only be sent after ingest of IPTV content.

Note 3: More details about files naming will be explicit in the next chapters.

3.1.1 Root folder name convention

- i) Root folder name convention for IPTV is: **IPTV**

- ii) Root folder name convention for PDL and OTT is: **PDL**
- iii) In both root folders, the sub-folder name must be the same. The name convention is:

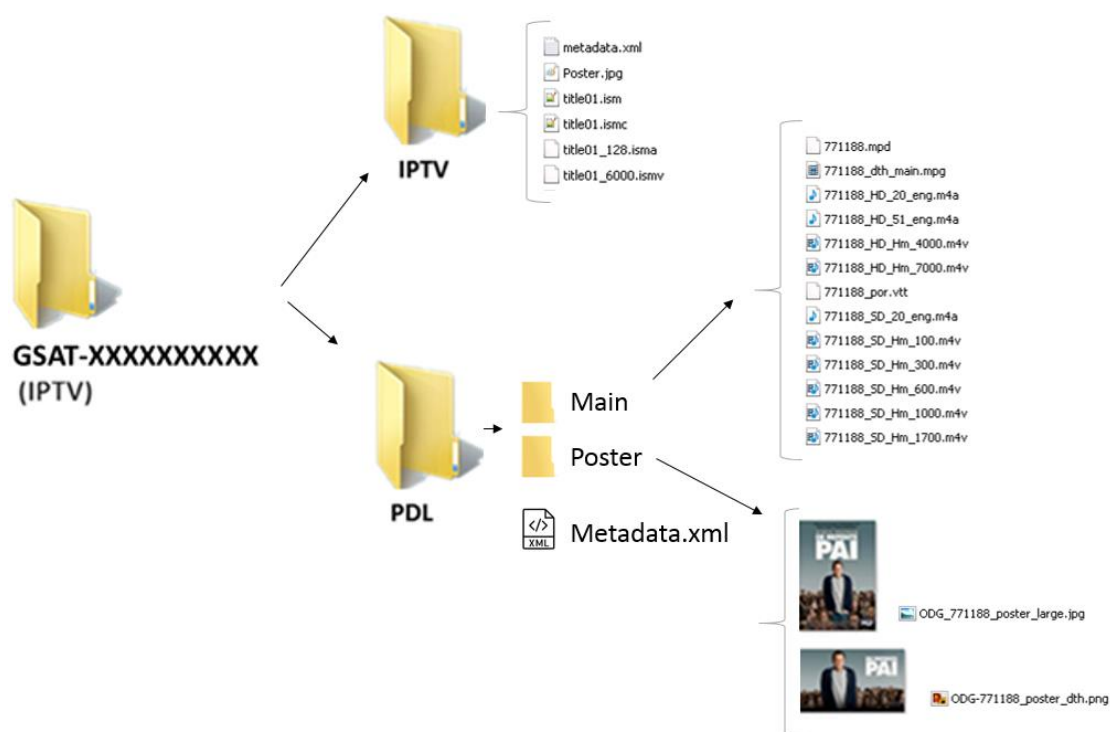
- **{0} + "-" + {1}** Where:

{0} must be replaced by the **Provider_ID** with the limit of 4 (four) characters

{1} must be replaced by the **Asset_ID** with the limit of 11 (ten) characters

The maximum length of ProviderID + "-" + AssetID combination **should not exceed 15 characters and combination must be unique. The expected type for AssetID is int.**

Example: **GSAT-XXXXXXXXXX**



3.2 Oi Play 2.0 - OTT Package Structure

(S)VODs to be delivered by Oi providers must be packaged in a folder with the following first level structure:

- PDL Folder:
 - ProviderID-AssetID
 - Main
 - OTT Main video content

- Trailer (opt)
OTT Trailer video content (opt)
 - Poster
 - *PDL/OTT poster*
 - metadata.xml
- iv) Folder Main, (s)VOD streaming media files (*For media files specification see chapter 4*).
 - v) Folder Poster, (s)VOD posters (*For media files specification see chapter 4*).
 - vi) Folder Trailer, (s)VOD trailer streaming media files (*For media files specification see chapter 4 and media profiles specification of section 4.2*)
 - vii) File metadata.xml, (s)VOD metadata xml file (*for detailed specification see chapter 5*)

All the four items are mandatory independent of the target delivery channels of the content (IPTV, OTT, PDL).

The number and type of files inside folders depends on the target delivery channels.

3.2.1 Main folder

Must contain all the streaming media files for main VOD content according to specification of chapter 3.3 and following the name convention:

Oi Play 2.0 OTT (Mobile and PC)

Video File Formats	MPEG DASH
BitRate Profiles	100, 300, 600, 1000, 1700, 4000 or 7000 Kbps
File Name Convention	<p>{0} + “_” + {1} + “_” + {2} + “.m4v” Where:</p> <p><i>{0} must be replaced by the Asset_ID</i></p> <p><i>{1} must be replaced by strings :</i></p> <p><i>“SD_Hm” for SD profiles – bitrates 100, 300, 600, 1000 and 1700 or</i></p> <p><i>“HD_Hm” for HD profiles – bitrates 4000 and 7000</i></p> <p><i>{2} must be replaced by file bitrate “100, 300, 600, 1000, 1700, 4000 or 7000”</i></p>

Examples	764234_SD_Hm_100.m4v 764234_SD_Hm_300.m4v 764234_SD_Hm_600.m4v 764234_SD_Hm_1000.m4v 764234_SD_Hm_1700.m4v 764234_HD_Hm_4000.m4v 764234_HD_Hm_7000.m4v

Audio Files Container	MPEG DASH
Audio formats	i) Stereo bitrates 64 and 96 kbps ii) Dolby Digital 5.1 bitrates 96 and 256 kbps
File Name Convention	<p>{0} + “_” + {1} + “_” + {2} + “_” + {3} “.m4a” Where:</p> <p><i>{0} must be replaced by the Asset_ID</i></p> <p><i>{1} must be replaced by strings :</i></p> <p>“SD” for SD profiles – stereo 64 kbps, dolby 96 kbps “HD” for HD profiles – stereo 96 kbps, Dolby 256 kbps</p> <p><i>{2} must be replaced using strings:</i></p> <p>“20” for stereo audio format “51” for Dolby Digital 5.1 formats</p> <p><i>{3} must be replaced by the language supported in the iso 639-2 format. Supported languages:</i></p> <p><i>Portuguese (“por”) and</i> <i>English(“eng”)</i></p>
Examples	764234_SD_20_por.m4a (64kbps, Stereo, Portuguese audio) 764234_HD_20_por.m4a (96kbps, Stereo, Portuguese audio) 764234_HD_51_por.m4a (256kbps, Dolby, Portuguese audio)

	audio) 764234_SD_51_por.m4a (96kbps, Dolby, Portuguese audio) 764234_SD_20_eng.m4a (64kbps, Stereo, English audio) 764234_HD_20_eng.m4a (96kbps, Stereo, English audio) 764234_HD_51_eng.m4a (256kbps, Dolby, English audio) 764234_SD_51_eng.m4a (64kbps, Dolby, English audio)
--	---

Subtitle Files Container	WebVTT or SRT
Audio formats	i) Stereo bitrates 64 and 96 kbps ii) Dolby Digital 5.1 bitrates 256 kbps
File Name Convention	{0} + “_” + {1} + “.vtt” or “.srt” Where: <i>{0} must be replaced by the Asset_ID</i> <i>{1} must be replaced by the language supported in the iso 639-2 format. Supported languages:</i> <i>Portuguese (“por”) and</i> <i>English(“eng”)</i>
Examples	764234_ por.srt (Portuguese srt subtitle format) 764234_ por.srt (English srt subtitle format) 764234_ por.vtt (Portuguese webVTT subtitle format) 764234_ por.vtt (English webVTT subtitle format)

Manifest Container	MPD
File Name Convention	{0} + “.mpd”
Example:	764234.mpd

PDL (DTH Progressive Download)

Video File Formats	MPEG Transport Stream (.ts) or MPEG (.mpg) single bitrate (1 stream file)
File Name Convention	{0} + “_” + {1} + “_” + “DTH_main” + “.” + {2} Where: <i>{0} must be replaced by the Asset_ID</i>

	<p><i>{1} must be replaced by strings “SD” or “HD”</i></p> <p><i>{2} must be replaced by the appropriate file extension: “ts” or “mpg”</i></p>
Examples	764234_SD_DTH_main.ts

Example of a main folder content for a full (OTT + PLD)














Name	Type
 764234_eng.vtt	VTT File
 764234_por.vtt	VTT File
 764234_SD_20_eng.m4a	VLC media file
 764234_SD_20_por.m4a	VLC media file
 764234_SD_DTH_main.ts	VLC media file
 764234_HD_Hm_7000.m4v	VLC media file
 764234_HD_Hm_4000.m4v	VLC media file
 764234_SD_Hm_1700.m4v	VLC media file
 764234_SD_Hm_600.m4v	VLC media file
 764234_SD_Hm_1000.m4v	VLC media file
 764234_SD_Hm_100.m4v	VLC media file
 764234_SD_Hm_300.m4v	VLC media file
 764234.mpd	MPD File

Figure 1 – Main folder content format example - OiPlay 2.0 + PDL

3.2.2 Poster Folder

Must contain posters media files according to the specification for each delivery channel:

- OTT (Mobile and PC)
 - File type: JPEG
 - Resolution: 502x720 pixels (max: 400kb)
 - Name convention:

{0} + “-” + {1} + “_poster_large.jpg” Where:

*{0} must be replaced by the **ProviderId***

*{1} must be replaced by the **AssetId***

Example: ODG-771355_poster_large.jpg

- PDL

- File type: PNG
- Resolution 252x152 pixels (max: 400kb)
- Name convention:



{0} + “-” + {1} + “_poster_dth.png” Where:

*{0} must be replaced by the **ProviderId***

*{1} must be replaced by the **AssetId***

Example: ODG-771355_poster_dth.png

Example of a poster folder structure (both OTT and PDL)

▼ rj-stg-ofs-01 ▼ MediaIngest ▼ VOD ▼ ODG ▼ ODG-771355 ▼ Poster		
Name ^	Date modified	Type
 ODG-771355_poster_large.jpg	4/18/2016 12:02 PM	JPEG image
 ODG_771355_poster_dth.png	4/18/2016 12:02 PM	PNG image

3.2.3 Trailer Folder

Must contain all the streaming media files for VOD trailer according to specification of chapter 3.3.

The number and type of files are the some described in the Main folder section.

In case there is no trailer, this folder should not compose the package. If the trailer is available, it should be available for all channels.

Regarding OTT delivery channel file names are exactly the some of the main content files.

Regarding PDL delivery channel, the name of the trailer file must follow the convention:

- **{0} + “_” + {1} + “_” + “DTH_tr” + “.” + {2}** Where:

*{0} must be replaced by the **Asset_ID***

{1} must be replaced by strings “SD” or “HD”

{2} must be replaced by the appropriate file extension: “ts” or “mpg”

Example: **771355_SD_DTH_tr.ts**

Example of a Trailer folder structure (both OTT and PDL)














Name	Type
 764234_eng.vtt	VTT File
 764234_por.vtt	VTT File
 764234_SD_20_eng.m4a	VLC media file
 764234_SD_20_por.m4a	VLC media file
 764234_SD_DTH_tr.ts	VLC media file
 764234_HD_Hm_7000.m4v	VLC media file
 764234_HD_Hm_4000.m4v	VLC media file
 764234_SD_Hm_1700.m4v	VLC media file
 764234_SD_Hm_600.m4v	VLC media file
 764234_SD_Hm_1000.m4v	VLC media file
 764234_SD_Hm_100.m4v	VLC media file
 764234_SD_Hm_300.m4v	VLC media file
 764234.mpd	MPD File

Figure 2 - Exemplo Pasta Main conteúdo OiPlay 2.0 + PDL

3.2.4 Metadata XML File

Metadata XML file must be included in the package. *Detailed specification of metadata file XML structure available at chapter 5.*

Note: Regarding Metadata information it's important to highlight that, RentableOn and DownloadableOn values must be filled with “Oi_PC”, “Oi_Mobile” and “Oi_DTH” for OTT + PDL content metadata.











```
<additionalInfo name="A Casa dos Contos de Fadas (DUB)">
<value param="RentableOn">OI_PC,OI_Mobile,Oi_DTH</value>
<value param="DownloadableOn">OI_PC,OI_Mobile, Oi_DTH</value>
<value param="CountryGrantRestriction">BR</value>
<value param="ISPGrantRestriction"/>
<value param="DownloadRentPeriod">1</value>
<value param="DownloadPrice">0.0</value>
</additionalInfo>
```

Figure 3 - RentableOn and DownloadableOn values for OTT + PDL

A full sample can be seen in “Appendix A”

3.3 IPTV package structure

IPTV (S)VODs to be delivered by Oi providers must be packaged in a folder containing the following structure (example of an HD Content with Trailer)

Name ^	Date modified	Type	Size
 metadata	8/24/2017 7:36 AM	XML Document	4 KB
 poster	8/24/2017 7:36 AM	JPEG image	14 KB
 title01.ism	8/24/2017 7:36 AM	ISM File	2 KB
 title01.ismc	8/21/2017 12:41 AM	ISMC File	142 KB
 title01_128.isma	8/21/2017 12:41 AM	ISMA File	100,368 KB
 title01_6000.ismv	8/21/2017 12:39 AM	ISMV File	4,584,987 KB
 trailer.ism	8/24/2017 7:36 AM	ISM File	2 KB
 trailer.ismc	8/24/2017 5:42 AM	ISMC File	5 KB
 trailer_128.isma	8/24/2017 5:42 AM	ISMA File	2,484 KB
 trailer_6000.ismv	8/24/2017 5:42 AM	ISMV File	112,791 KB

File type to be included in the IPTV package:

- Main media Files (mandatory)
- Trailer Media Files (Optional)
- Poster Image File (Mandatory)
- Metadata XML File (Mandatory)

3.3.1 IPTV Main Media Files

IPTV media files must be encoded in SmoothStreaming Format (single bitrate)

Each content must be delivered in just one of the formats (SD or HD).

For the same content to be available in both SD and HD formats two separate packages are required resulting in two different contents

Media archives name convention should follow the rule:

HD Format: **"title01"** + **"_"** + *HD_Bitrate* + **".ismv"** where *HD_Bitrate* = "6000"

SD Format: **"title01"** + **"_"** + *SD_Bitrate* + **".ismv"** where *SD_Bitrate* = "3000"

Must contain all the streaming media files for main (s)VOD content according to specification of chapter 3.3.1 and media profiles specification of section 4.1

3.3.2 Trailer Media Files

IPTV Trailer media files must be encoded in SmoothStreaming Format (single bitrate)

Trailer Media archives name convention should follow the rule:

HD Format: **"trailer"** + **"_"** + *HD_Bitrate* + **".ismv"** where *HD_Bitrate* = "6000"

SD Format: **"trailer"** + **"_"** + *SD_Bitrate* + **".ismv"** where *SD_Bitrate* = "3000"

For detailed specification of trailer media file specification please refer of chapter 3.3.2 and media profiles specification of section 4.1.

3.3.3 Poster Image File

A poster image related to the video content must be included in the IPTV package and must follow the rules:

File type: JPEG

Resolution: 502x720 pixels (max: 400kb)

Poster image archives name should be fixed and according to "Poster.jpg".

3.3.4 Metadata XML File

Metadata XML file must be included in the package.

Detailed specification of metadata file XML structure available at chapter 4.4.5

Note: Regarding Metadata information it's important to highlight that, RentableOn and DownloadableOn values must be filled with "OI_IPTV" for IPTV content metadata.

```
<additionalInfo name="Zingzillas - Ep 32">  
<value param="RentableOn">OI_IPTV</value>  
<value param="DownloadableOn">OI_IPTV</value>  
<value param="CountryGrantRestriction">BR</value>  
<value param="ISPGrantRestriction"></value>  
<value param="DownloadRentPeriod">1</value>  
<value param="DownloadPrice">0.0</value>  
</additionalInfo>
```

Figure 4 - RentableOn and DownloadableOn values for IPTC content

4 Oi VOD Media Files specification

4.1 Media files Specification for IPTV VOD services

For IPTV VOD services media files should be delivered in smooth streaming format either in SD (3 Mbps) or HD (6 Mbps) resolutions.

The following sections details encoding settings for both resolutions.

4.1.1 IPTV SD VOD Specification

Pure VOD (Smooth Streaming -ISO/IEC 14996-12) SD 3Mbps	
Wrapper	f-MPEG4 (IISS)
Subtitling	DFXP
Closed Caption	EIA608B
Mode for SD	CBR HP@L3.0
Bitrate for SD	3Mbps
GOP Size	2 seconds (fixed)
B Frames	3
Video Buffer for SD	1Mbytes
Varredura	Progressive
Formato de Croma	4:2:0
RAP Interval	2 seconds (closed) ¹
Standard	NTSC
Frame Rate	29.97fps
SD Video Resolution	720x480 ²
Aspect Ratio	4:3 ou 16:9 ⁷

Audio, Option 1	HE-AACv1.0@128kbps/48KHz ³
Audio, Option 2	AC3@256bps/48KHz8
Audio, Option 3	DD-Plus@192kbps/48KHz8
Metadata Format	XML ⁴
Card ID	JPEG
Card ID Resolution (width x height)	160x229 (96dpi) ⁵
Client Manifest	UTF-16 ⁶

4.1.2 IPTV VOD HD Specification

Pure VOD (Smooth Streaming -ISO/IEC 14996-12) HD 6Mbps	
Wrapper	f-MPEG4 (IISS)
Subtitling	DFXP
Closed Caption	EIA708B
Mode for HD	CBR HP@L4.0
Bitrate for HD	6Mbps
GOP Size	2 seconds (fixo)
B Frames	3
Video Buffer for HD	2MBytes
Varredura	Progressive
Formato de Croma	4:2:0
RAP Interval	2 seconds (closed) ¹
Standard	NTSC

Frame Rate	59.94fps
HD Video resolution	1280x720 ²
Aspect Ratio	16:9 ⁷
Audio, Option 1	HE-AACv1.0@128kbps/48KHz ³
Audio, Option 2	AC3@256bps/48KHz8
Audio, Option 3	DD-Plus@192kbps/48KHz8
Metadata	XML ⁴
Card ID	JPEG
Card ID Resolution (width x height)	160x229 (96dpi) ⁵
Client Manifest	UTF-16 ⁶

4.2 Media files Specification for OTT VOD services (Mobile and PC)

For OTT VOD services media files should be delivered in MPEG/Dash, multi-bitrate format in SD or HD resolutions.

The following sections details encoding settings for both resolutions.

4.2.1 OTT SD and HD VOD Specification

Files must be according to DASH specification, one single mp4 fragmented file per audio or video profile according to the example in the link:

Pure VOD (MPEG DASH)	
Wrapper	MP4 DASH (m4v and m4a)
Subtitling	Supported vtt and srt formats
Video Encoding	H264

Video (OTT)	width (16:9/4:3)	height (16:9/4:3)	Profile	level	Control	Bitrate
	192/144	108/108	main	2_1	cbr	100kbps
	320/240	180/180	main	2_1	cbr	300kbps
	640/480	360/360	main	3_0	cbr	600kbps
	720/538	404/404	main	3_0	cbr	1,0Mbps
	854/640	480/480	main	3_1	cbr	1.7Mbps
	1280/-	720/-	main	3_1	cbr	4.0Mbps
	1920/-	1080/-	main	4_1		7.0Mbps
14.7Mbps						

Audio (OTT)	Profile	Encoding	Bitrate
	1	Stereo HE-AAC	64 kbps
	2	Stereo HE-AAC	96 Kbps
	3	5.1 HE-AAC	256 Kbps

Varredura Progressive

Formato de Croma 4:2:0

RAP Interval 2 segundos (closed)¹

Standard NTSC

Frame Rate 29.97fps

Aspect Ratio 4:3 ou 16:9

Audio, Option 1 AAC@64Kbps / 24KHz

Metadata XML²

Card ID JPEG

Card ID Resolution 160x229 (96dpi)³

Client Manifest MPD

4.3 Media files Specification for DTH PDL VOD services

For DTH PDL VOD services media files should be delivered in either MPEG2 TS format either in SD (2,7 Mbps) or HD (3,8 Mbps) resolutions.

The following sections details encoding settings for both resolutions.

4.3.1 DTH PDL SD VOD Specification

Specific Information for Audio, Video & Subtitling for SD Content	
Wrapper	MPE2-TS
Overall Bit Rate	<2.5Mbps
Video Codec	H.264 Part 10/MPEG-4 AVC
Subtitling	DVB BITMAP
	CBR HIGH PROFILE@3.0 ⁴
Bitrate for SD	>1.7Mbps
GOP Size	16 frames
B Frames	3
Video Buffer for SD	1MBytes
Varredura	Interlaced
Formato de Croma	4:2:0
Standard	NTSC
Frame Rate	29.97fps
Vídeo SD Resolution	720x480 ¹
Aspect Ratio	4:3 ou 16:9 ³
Audio, Option 1	AC3@256Kbps/48KHz (5.1)

Audio, Option 2	<i>N/A (5.1 DD+ is under teste)</i>
Audio, Option 3	AC3@96Kbps/48KHz (2.0)
Audio, Option 4	AAC-LC@96Kbps/48KHz (2.0)
Card Format	PNG
Card ID Resolution (width x height)	252 x 152 (96dpi) ²
Audio Descriptor AC3	0x6A (DVB AC-3 Descriptor)
Stream Type AC3	0x06
Audio Descriptor DD+	0x7A (DVB E-AC-3 Descriptor)
Stream Type DD+	0x06
Audio Language Descriptor	0x0A por (Portuguese) ⁵
Audio Language Descriptor	0x0A eng (English) ⁵
Subtitlig Descriptor	0x59
Subtitling Stream Type	0x06
Subtitling Language	por (Portuguese)
Subtitling Type	17
Subtitling Composition Page	1
Ancillary page ID	0

4.3.2 DTH PDL HD VOD Specification

Specific Informations for Audio, Video & Subtitling for HD Content

Wrapper	MPE2-TS
Overall Bit Rate	<3.8Mbps
Video Codec	H.264 Part 10/MPEG-4 AVC
Subtitlig Format	DVB BITMAP
Mode for HD	CBR HIGH PROFILE@4.0 ⁴
Bitrate for HD	>3 Mbps
GOP Size	32 frames
B Frames	3
Video Buffer for HD	2MBytes
Varredura	Progressive
Formato de Croma	4:2:0
Standard	NTSC
Frame Rate	29,97
Vídeo HD Resolution	720x1280 ¹
Aspect Ratio	16:9 ³
Audio, Option 1	AC3@256Kbps/48KHz (5.1)
Audio, Option 2	N/A (5.1 DD+ is under teste)
Audio, Option 3	AC3@96Kbps/48KHz (2.0)
Audio, Option 4	AAC-LC@96Kbps/48KHz (2.0)
Card Format	PNG
Card ID Resolution (width x height)	252 x 152 (96dpi) ²

Audio Descriptor AC3	0x6A (DVB AC-3 Descriptor)
Stream Type AC3	0x06
Audio Descriptor DD+	0x7A (DVB E-AC-3 Descriptor)
Stream Type DD+	0x06
Audio Language Descriptor	0x0A por (Portuguese) ⁵
Audio Language Descriptor	0x0A eng (English) ⁵
Subtitling Descriptor	0x59
Subtitling Stream Type	0x06
Subtitling Language	por (Portuguese)
Subtitling Type	17
Subtitling Composition Page	1
Ancillary page ID	0

4.4 Mezzanine Format

In the case that the Content Provider does not support or is unable to deliver a package according to the specification on items: 4.1, 4.2 and 4.3, the Content Provider has an option with Mezzanine files.

In this case, Oi internal processes with their capability of transcoding will normalize that to the final delivery format and then feed all the platforms, for instance PDL, OTT and IPTV.

4.4.1 Video Specification for HD Mezzanine

Video Codec: XDCAM HD 4:2:2 CBR 50Mbps Long Gop

Video Resolution: 1920x1080i

Aspect Ratio: 16x9

Frame Rate: 29,97fps (Drop Frame)

Subtitling: SRT (separated file)

Time Code Information: SOM: 00:00:00:00

Wrapper: MXF

4.4.2 Video Specification SD Mezzanine

Video Codec: IMX30 CBR

Video Resolution: 720x480i

Aspect Ratio: 4x3 or 16x9 (the original aspect ratio must be kept)

Frame Rate: 29,97fps (Drop Frame)

Subtitling: SRT (separated file)

Time Code Information: SOM: 00:00:00:00

Wrapper: MXF

4.4.3 Audio for HD/SD Mezzanine File

Type of delivery: Linear PCM

Sample Rate: 48 KHz (ITU-R BS. 646)

Word Length: 16, 20 or 24 bits

Reference level: in 0 VU is -20 dBFS (Full Scale)

Loudness: -24 LKFS +/- 2 dB in conformance with ITU-R BS1770

Peak for SD: -10 dBFS ITU-R BS 1770 (true peak)

Peak for HD: -6 dBFS ITU-R BS 1770 (true peak)

See below the place of each stereo and surround tracks:

Audio Channel	Description
1 – L	Left - Original Audio (5.1)
2 – R	Right - Original Audio (5.1)
3 – C	Center - Original Audio (5.1)
4 – LFE	Low Frequency Effect - Original Audio (5.1)
5 – LS	Left Surround - Original Audio (5.1)
6 – RS	Rear Surround - Original Audio (5.1)
7- L	Left Channel - Original Audio (2.0)
8- R	Right Channel - Original Audio (2.0)
9 – L PORT	Left - Portuguese Audio (5.1)
10 – R PORT	Right - Portuguese Audio (5.1)
11 – C PORT	Center - Portuguese Audio (5.1)
12 – LFE PORT	Low Frequency Effect - Portuguese Audio (5.1)
13 – LS PORT	Left Surround - Portuguese Audio (5.1)
14 – RS PORT	Rear Surround - Portuguese Audio (5.1)
15 – L	Left Channel - Portuguese Audio (2.0)
16 – R	Right Channel - Portuguese Audio (2.0)

4.4.4 Main Folder

Must contain Mezzanine media file for main VOD content according to specification of chapter 4.4 and following the name convention:

OTT/PDL/IPTV

- Video Type Format: **MXF (Mezzanine)**
 - 1 streaming file (bitrates: 50 and 30Mbps)
 - File name convention:
{0} + “_” + {1} + “_” + {2} + “_” + {3}.MXF Where:

{0} must be replaced by the **Asset_ID**

{1} must be replaced by strings “SD” or “HD”

{2} must be replaced by string “Mez”

{3} must be replaced by file bitrate “50, or 30”

Example: **771355_SD_Mez_30.MXF**

- Format: **.SRT (Subtitling)**
 - 1 text file
 - File name convention:
{0} + “_” + {1}.SRT Where:
 - {0} must be replaced by the Asset_ID
 - {1} must be replaced by strings “por” or “eng” according to subtitle language.

Example: **771355_por.SRT**

4.4.5 Trailer Folder

Must contain Mezzanine media file for VOD trailer content according to specification of chapter 4.4 and must follow the convention:

OTT/PDL/IPTV

- Type Format: **MXF (Mezzanine)**
 - 1 streaming file (bitrates: 50 and 30Mbps)
 - File name convention:
{0} + “_” + {1} + “_” + {2} + “_” + {3}.MXF Where:
 - {0} must be replaced by the **Asset_ID**
 - {1} must be replaced by strings **“SD” or “HD”**
 - {2} must be replaced by string **“MezTr”**
 - {3} must be replaced by file bitrate **“50, or 30”**

Example: **771355_SD_MezTr_30.MXF**

- Format: **.SRT (Subtitling)**
 - 1 text file
 - File name convention:
{0} + “_” + {1}.SRT Where:
 - {0} must be replaced by the **Asset_ID**
 - {1} must be replaced by strings **“por” or “eng”** according to subtitle language.

Example: **771355_por.SRT**

5 XML file Specification

Metadata describes an asset (such as title and runtime) and defines the business rules (such as suggested price) and the rights information (such as license window) to use for the asset. You can use this information to create or modify asset metadata.

Before you can import VOD and SVOD assets, you need to define the asset's metadata in an .xml file, which is placed in the same package as the asset's media files.

5.1 XML file structure

In the XML file structure, top level `assetPackages` node acts as a container for one or more `assetPackage` nodes each one referring to a different asset (VOD or SVOD) however we strongly recommended the use of different xml file per asset. The inner node `assetPackage` has 4 child nodes:

- i) **metadata** (minOccurs:1 / maxOccurs:1),
- ii) **businessMetadata** (minOccurs:1 / maxOccurs:1)
- iii) **rightsMetadata** (minOccurs:1 / maxOccurs:1)
- iv) **asset** (minOccurs:2 / maxOccurs:3).
- v) **DTH** (minOccurs:1 / maxOccurs:1)

Note: If trailer is not available there is no need to include asset node with attribute type="trailer"

Commented xml block with PDL content specific attributes

The next figure presents the high-level xml file structure.

```
<?xml version="1.0" encoding="UTF-8"?>

<!-- Specifies the opening element for metadata.xml and the container for the list of packages shown in the .xml file -->
<assetPackages xmlns:date="http://exslt.org/dates-and-times" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
formatVersion="1.0" xsi:noNamespaceSchemaLocation="vodmetadata.xsd">

  <!-- Specifies a single package consisting of descriptive metadata, trailers, posters, and feature (content) -->
  <assetPackage asset_name="" name="" product="" providerID="" providerName="" type="" version="">

    <!-- Container for the child elements that define the general metadata for a VOD or SVOD -->
    <metadata>
      <!-- contains child elements for metadata xml node -->
    </metadata>

    <!-- The business metadata section of the metadata .xml file specifies the elements that are related to business aspects
    (such as price, currency, and distributor details) for the asset. -->
    <businessMetadata>
      <!-- contains child elements for businessMetadata xml node -->
    </businessMetadata>

    <!-- The rights metadata section of the metadata file specifies the licensing and viewing rights that are associated with the asset. -->
    <rightsMetadata>
      <!-- contains child elements for businessMetadata xml node -->
    </rightsMetadata>

    <!-- A container for the child elements that define the asset metadata for the feature, or for its poster or trailer -->
    <asset asset_name="" type="feature">
      <!-- contains child elements for asset xml node related to feature -->
    </asset>
    <asset asset_name="" type="poster">
      <!-- contains child elements for asset xml node related to Poster -->
    </asset>
    <asset asset_name="" type="trailer">
      <!-- contains child elements for asset xml node related to Trailer -->
    </asset>

    <!-- DTH
    PDL content specific attributes
    -->
  </assetPackage>
</assetPackages>
```

5.2 assetPackages - XML Top Level Node

5.2.1 assetPackages Description

Specifies the opening element for metadata.xml and the container for the list of packages shown in the .xml file.

5.2.2 assetPackages Attributes

Supported attributes for assetPackages node are:

formatVersion. Specifies the version of the schema.

For example, this value should be "2.0" for Microsoft Mediaroom Server 2.0.

xmlns:xsi. Specifies the standard value to indicate the namespace.

This value is always "http://www.w3.org/2001/XMLSchema-instance".

xmlns:xsd. Specifies the standard value to indicate the schema namespace.

This value is always "http://www.w3.org/2001/XMLSchema".

xsi:noNamespaceSchemaLocation. Specifies the location of the VOD metadata schema.

Typically, this is "VODmetadata.xsd".

5.2.3 assetPackages Example

Example of a assetPackages xml node.

```
<!-- Specifies the opening element for metadata.xml and the container for the list of packages shown in the .xml file -->
<assetPackages xmlns:date="http://exslt.org/dates-and-times" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
formatVersion="1.0" xsi:noNamespaceSchemaLocation="vodmetadata.xsd">
```

5.2.4 assetPackages Child Nodes

List of assetPackages child nodes:

Child Elements	Description
assetPackage	Specifies a single package consisting of descriptive metadata, trailers, posters, and feature (content).

5.3 assetPackage Node (assetPackages -> assetPackage)

5.3.1 assetPackage Description

Specifies a single package consisting of descriptive metadata, trailers, posters, and feature (content).

5.3.2 assetPackage Attributes

The following table describes the attributes for the assetPackage node.

assetPackage Node Attributes	Constraints	Required?	Description
asset_name	String Max: 255 chars Incompatible chars: &, >, <, %, , #	Yes	String that specifies the name of the asset.
providerID	String Max: 4 chars See item 3.1.1.	Yes	Unique identifier for the provider of the asset. To ensure that the providerID is unique. NOTE: Value must be agreed with Oi. See list of values at section 5.3.2.1
provider_Name	String Max: 50 chars	No	Name for the provider of the asset; for example, HBO.
Type		Yes	Type of asset that is ingested. Valid values are:

			“VOD” (for Transactional VODs) “SVOD” (for Subscription VODs)
name	String	Yes (only for SVOD type assets)	Required for SVOD assets, optional for all others. For SVOD, the value must match the name given to the top level of the category assigned to the asset. Example: name = “Coleção Oi”
version	Integer	Yes	The schema version. Use: “2”
verb	String	Yes	Internal. Fill with empty value. Example: verb = ""

5.3.2.1 ProviderID values

ProviderID	ProviderName
CBO	Casablanca Online
CSAT	Comsat
DSY	Discovery
ENC	Encripta
GSAT	Globosat
ODG	OnDemand (VU)
PBBR	Playboy Brasil
PLS	Philos
TLC	Telecine
BRAS	Canal Brasil
ESPN	ESPN
DMD	DMD
TURN	Turner
FUTU	Canal Futura
HBO	HBO
FOX	FOX
SONY	Sony
VCOM	Viacom
WNER	Warner
FISH	FishTV
CURT	Curta!
SEXY	Sexy-Prive

5.3.3 assetPackage Example

```
<assetPackage asset_name="Winx Club - Ep 19" name="Coleção Oi" product="SVOD" providerID="ODG" providerName="OnDemand" type="SVOD" version="2">
```

5.3.4 assetPackage Child Nodes

Child Elements	Required?	Description
Metadata	Yes minOccurs =1 maxOccurs=1	Container for the child elements that define the general metadata for a VOD or SVOD asset.
businessMetadata	Yes	<p>The business metadata section of the metadata .xml file specifies the elements that are related to business aspects (such as price, currency, and distributor details) for the asset.</p> <p>The value must be agreed with Oi Playout and Programming teams.</p>
rightsMetadata	Yes	The rights metadata section of the metadata file specifies the licensing and viewing rights that are associated with the asset.
asset Node	Yes	<p>The asset node describes the metadata for the following:</p> <ul style="list-style-type: none"> Poster Trailer Feature <p>The required metadata element is a container for the child elements that define the asset metadata for the feature, or for its poster or trailer.</p> <p>You include one asset section for the feature, one for its poster, and one for its trailer.</p>

5.4 metadata Node (assetPackages -> assetPackage -> metadata)

5.4.1 metadata Description

Container for the child elements that define the general metadata for a VOD or SVOD

5.4.2 metadata Child Elements

metadata Elements	child	Constraints	Required?	Description
assetID		Int	Yes MinOccurs=1 MaxOccurs=1	Asset identifier within the content provider's namespace.
providerID		String Max: 4 chars See item 3.1.1.	Yes	Uniquely identifies the provider of the asset metadata. NOTE: Value must be agreed with Oi Payout and Programming teams.
showType		String Possible Values: "Movie" "TVShow"	Yes	Defines the show type of the asset and also indicates the type of content. This is relevant only with asset type of VOD. If a program has the MSEP_G_MOVIE flag, it is considered a movie; otherwise, it is considered a TV show.
title		String Max: 254 chars	Yes	Defines a string that represents the full title of the asset. You need one instance of the title child element for every language you want to specify. Its language attribute is a ISO-639 two-character code that defines the language that is used for the string; for example, "en" for English.
sortTitle		String Max: 100 chars	No	Defines a string representing a version of the asset's title that is used in displaying a sorted view of the assets available, but its value is not displayed on the client. Its language attribute is a two-character code that defines the language that is used for the string; for example, "en" for English. An ISO-639 code that defines the language used for the string; for example, "en" for English.
reducedTitle		String Max: 100 chars	Yes	Defines a string to use for a shorter version of the asset title. This string is not displayed on the end user's device. Its language attribute is a ISO-639 two-character code that defines the language that is used for the string; for example, "en" for English.
Summary		String Max: 1024 char	Yes	Defines a string that represents a lengthy description of the asset for display on the client.

			Its language attribute is ISO-639 a two-character code that defines the language that is used for the string; for example, "en" for English.
shortSummary	String Max: 254 chars	Yes	Defines a string that represents a shortened description of the asset for display on the client. Its language attribute is a two-character code that defines the language that is used for the string; for example, "en" for English.
episodeNumber	String Max: 50 characters	Yes for Series	Defines a string representing the title of a VOD asset that is part of an episodic series. Numbers are the only acceptable values for this element.
cgmsaLevel	String Use fixed value: "copyNever"	Yes	Defines the level of CGMS-A (Copy Generation Management System Analog) copy protection mechanism for an asset and its accompanying files (trailer and poster).
rating	String. Possible values: "L", "10", "12", "14", "16", "18" "A"	Yes	Defines the overall ratings information for an asset, including the system used and the ratings value assigned to the asset. You can assign a different rating to the asset's feature, trailer, and poster files. The rating_system attribute defines the system used to assign a rating to the asset; Oi uses Brazilian rating_system DJCTQ that defines the following available values: "L", "10", "12", "14", "16", "18" The value "A" is also available.
runTimeMinutes	Short Integer Possible values: > 0	Yes	Defines the duration of the VOD asset in minutes. This value must be different than 0 (zero).
release_year	Year data type representing a Gregorian calendar year. Ex: 2016	Yes	Defines the year that the VOD asset was first released.
countryRegionCode	String, two characters (A - Z, a - z)	Yes	Defines a two-character code that represents the region or country from which the asset originated.

person	String MinOccurs: 0 MaxOccurs: 100	No	Defines the name of an actor, writer, producer, or director associated with the asset. The value assigned to this element is displayed in the Actor(s), Writer(s), Director(s), or Producer(s) See list of attributes at section 5.4.2.2
studio	String Max: 100 chars	No	Defines the name of the studio for the asset. This is the complete, official name of the studio.
studioDisplayName	String Max: 255 chars	No	Defines the display name of the studio.
category	String Max: 255 chars MinOccurs:1 MaxOccurs:10 0	Yes	Defines how the asset is presented in the VOD Storefront screen. The entries for this element are case-sensitive and can be used for category validation. NOTE: Includes the full path of category within the catalog. Example: “Coleção Oi/Coleção Oi Infantil/Séries/Winx Club/Temp 03”. Please, contact Oi’s Programming Team to complete this item in order to have the correct presentation in a store front VOD library.
genre	String See section 5.4.2.1 for possible values	Yes	Specifies a list of genres that the asset belongs to. Uses pre-defined codes according with information at section 5.4.2.1
autoImport	Boolean Use default value “true”	Yes	Determines whether an asset is automatically imported. Use default value “true”
autoDeploy	Boolean Use default value “true”	Yes	Determines whether an asset is automatically deployed. Use default value “true”

5.4.2.1 *genre Element values*

Value	Description
MSEPGC_Kids_Comedy MSEPGC_MV_Comedy	Comedy
MSEPGC_MV_Drama	Drama
MSEPGC_MV_ActAdv	Action
MSEPGC_Kids_Adventure	Kids Adventure
MSEPGC_Kids	Kids
MSEPGC_MV_Fantasy	Fantasy
MSEPGC_MV_SciFi	SciFi
MSEPGC_MV_Horror MSEPGC_MV_Suspense	Horror
MSEPGC_MV_Romance	Romance
MSEPGC_MV_Musical MSEPGC_Series_Music	Musical
MSEPGC_Ed_Documentary	Documentary
MSEPGC_Sports MSEPGC_Sports_Basketball MSEPGC_Sports_Boxing MSEPGC_Sports_Football MSEPGC_Sports_Racing MSEPGC_Sports_Soccer MSEPGC_Sports_Tennis MSEPGC_Sports_Other	Sport
MSEPGC_LS_AdultsOnly	Adult

5.4.2.2 *person Element*

Defines the name of an actor, writer, producer, or director associated with the asset. The value assigned to this element is displayed in the Actor(s), Writer(s), Director(s), or Producer(s) field in the TV.

person Attribute	Element	Constraints	Required?	Description
Role		String Valid Values: <i>actor</i> <i>director</i> <i>writer</i> <i>producer</i> <i>ExecutiveProducer</i> <i>host</i> <i>guestStar</i> <i>artist</i> <i>composer</i> <i>Actor</i> <i>Director</i> <i>Writer</i> <i>Producer</i> <i>Host</i> <i>GuestStar</i> <i>Artist</i> <i>Composer</i>	Yes	Defines the role that the person has in the asset. This information is displayed on the client, and typically contains items that are found in an asset's credits.
lname		String Max: 50 chars	Yes	Defines the last name of the person in this role. If the person does not have a last name, include a null entry for lname.
fname		String Max: 50 chars	Yes	Defines the first name of the person in this role.
mname		String Max: 50 chars	Yes	Defines the middle name of the person in this role. If the person does not have a middle name, include a null entry for mname.

Example:

```
<person role="director" lname="Östlund" fname="Ruben" mname=""/>
<person role="actor" lname="Wettergren" fname="Johannes" mname=""/>
```

5.4.3 metadata Example

```
<metadata>
  <assetID>827035</assetID>
  <providerID>ODG</providerID>
  <showType>Movie</showType>
  <title language="pt">Winx Club - Ep 19</title>
  <sortTitle language="pt">Winx Club - Ep 19</sortTitle>
  <reducedTitle language="pt">Winx Club - Ep 19</reducedTitle>
  <summary language="pt">Depois de serem banidas para a Dimensão Ômega, as Trix libertam Valtor, um bruxo misterioso, que quer se ...</summary>
  <shortSummary language="pt">Depois de serem banidas para a Dimensão Ômega, as Trix libertam Valtor</shortSummary>
  <episodeNumber>19</episodeNumber>
  <cgmsaLevel>copynever</cgmsaLevel>
  <rating value="L" rating_system="DJCTQ"/>
  <runTimeMinutes>23</runTimeMinutes>
  <release_year>2008</release_year>
  <countryRegionCode>US</countryRegionCode>
  <studio>RBW</studio>
  <studioDisplayName>Rainbow</studioDisplayName>
  <category>Coleção Oi/Coleção Oi Infantil/Séries/Winx Club/Temp 03</category>
  <autoDeploy>false</autoDeploy>
  <autoImport>false</autoImport>
  <genre>MSEPGC_Series_Children</genre>
  <person role="actor" lname="Peet" fname="Jack" mname=""/>
</metadata>
```

5.4.4 metadata Child Nodes

Child Elements	Required?	Description
additionalInfo	Yes minOccurs =1 maxOccurs=1	Enables the data provider to specify a list of key pairs for the asset.

5.5 additionalInfo Node assetPackages -> assetPackage -> metadata -> additionalInfo)

5.5.1 additionalInfo Description

Enables the data provider to specify a list of key pairs for the asset.

Note: Regarding Metadata information it's important to highlight that RentableOn and DownloadableOn values must be filled with appropriate channel values for IPTV, OTT or PDL content metadata.

5.5.2 additionalInfo Elements

AdditionalInfo Node attributes	Required?	Description
Name	Yes Max:255 chars	Enables the data provider to specify a list of key pairs for the asset. Acts as a container for key pairs for asset Use default value: "channels"

AdditionalInfo Node Elements	Required?	Description
Value	Yes numOccurs = 3	Defines values for each defined key.

value Element Attributes	Required?	Description
Param	Yes minOccurs =1 maxOccurs=1	Attribute that defines the name of the key pairs.

param Values	Attribute	value	Description
RentableOn		String Possible Values: Oi_Mobile Oi_PC OI_DTH OI_IPTV	Define the set of rental channels for the content. Each channel separated by a “,”
DownloadableOn		String Possible Values: Oi_Mobile Oi_PC OI_DTH OI_IPTV	Define the set of download channels for the content. Each channel separated by a “,”

CountryGrantRestriction	String	Geographic content distribution restriction. Use default value: “BR”
TrailerAvailableOnChannel	String Possible Values: Iptv Mobile DTH Mox	Define the set of download channels for the trailer. Each channel separated by a “,”
DownloadRentPeriod	String Possible value: 1	Define the set of download rent period.
ReasonCode	String	Summary of the main rating indicators inserted in the asset rated. Format: Supports up to three comma separated descriptors, according to Brazilian rating descriptors guide. See section 5.5.2.1.1 for supported values. Each descriptor must be separated by a “,”. Note: If there is no rating descriptor associated with the content, then the tag must be empty.

5.5.2.1 additionalInfo supported values

5.5.2.1.1 ReasonCode

Below is a list of the twelve terms used in the rating system.

- E.1 – **Atos Criminosos** (Criminal Acts);
- E.2 – **Conteúdo Sexual** (Sexual Content);
- E.3. – **Drogas** (Drugs);
- E.4. – **Drogas Lícitas** (Legal Drugs);
- E.5. – **Drogas Ilícitas** (Illegal Drugs);
- E.6. – **Linguagem Imprópria** (Inappropriate Language);
- E.7. – **Medo** (Fear);
- E.8. – **Nudez** (Nudity);

E.9 – **Procedimentos Médicos** (Medical Procedures)

E.10 – **Sexo Explícito** (Explicit Sex);

E.11 – **Temas Sensíveis** (Sensitive Subject).

E.12 – **Violência** (Violence);

E.13 – **Violência Extrema** (Extreme Violence);

E.14 – **Violência Fantasiada** (Fantasy Violence);

5.5.3 additionalInfo Example

```
<additionalInfo name="Largados e Pelados: A Tribo - Ep 12">
  <value param="RentableOn">OI_PC,OI_DTH,OI_IPTV</value>
  <value param="DownloadableOn">OI_PC,OI_DTH,OI_IPTV</value>
  <value param="CommercialProductID">10149042</value>
  <value param="CountryGrantRestriction">BR</value>
  <value param="DownloadRentPeriod">1</value>
  <value param="DownloadPrice">0</value>
  <value param="ReasonCode">Drogas, Medo, Violência</value>
</additionalInfo>
```

5.6 businessMetadata Node (assetPackages -> assetPackage -> businessMetadata)

5.6.1 businessMetadata Description

The business metadata section of the metadata .xml file specifies the elements that are related to business aspects (such as price, currency, and distributor details) for the asset.

5.6.2 businessMetadata Child Elements

businessMetadata Child Elements	Constraints	Required?	Description
suggestedPrice	Non-negative decimal	Yes	Defines the price as set by the content aggregator. If you enabled the option to automatically create offers when assets are deployed, this value is used for the offer's price. For a free asset or SVOD, the value of suggestedPrice should be 0.00.
currency_iso3166-2	String Use: "BR"	Yes	Defines the country code that determines the type of currency represented in the suggestedPrice child element. Default value "BR" must be used

5.6.3 businessMetadata Example

```
<businessMetadata>
  <suggestedPrice>0.0</suggestedPrice>
  <currency_iso3166-2>BR</currency_iso3166-2>
</businessMetadata>
```

5.7 rightsMetadata Node (assetPackages -> assetPackage -> rightsMetadata)

5.7.1 rightsMetadata Description

The rights metadata section of the metadata file specifies the licensing and viewing rights that are associated with the asset.

5.7.2 rightsMetadata Child Elements

rightsMetadata Child Elements	Constraints	Required?	Description
licensingWindowStart	Date time format: yyyy-mm-ddThh:mm:ss	Yes	Specifies the calendar start date on which the asset will first become available in the VOD system for end users to purchase.
licensingWindowEnd	Date time format: yyyy-mm-ddThh:mm:ss	Yes	Specifies a calendar date when an asset will no longer be available in the VOD system.
availabilityWindowStart	Date time format: yyyy-mm-ddThh:mm:ss		<p>Enables an operator to display an asset in the VOD Storefront screen before the date configured for licensingWindowStart is reached.</p> <p>If availabilityWindowStart is not provided, the value assigned to licensingWindowStart is used as the default value for availabilityWindowStart.</p> <p>Note: The value assigned to availabilityWindowStart is used to create the start date for the browse grant.</p>
availabilityWindowEnd	Date time format: yyyy-mm-ddThh:mm:ss		<p>Enables an operator to end the display of an asset in the VOD Storefront screen before the date configured for licensingWindowEnd is reached.</p> <p>If availabilityWindowEnd is not provided, the value assigned to licensingWindowEnd minus the value assigned to maximumViewingLimit is used as the default value for</p>

			<p>availabilityWindowEnd.</p> <p>NOTE: The availabilityWindowEnd element is used to create the browse grant end and the value assigned to availabilityWindowEnd cannot be greater than licensingWindowEnd or less than licensingWindowStart.</p>
daystoLastChance	Unsigned Short Integer	No	Enables a content provider to specify how many days before the availability date (last date on which the end user can buy the asset) the asset should be flagged as a "daystoLastChance" in the VOD Storefront
newReleaseWindow	Unsigned Short Integer	No	Defines the number of days that the asset is considered a new release.
maximumViewingLimit	Integer Use default value "2880"	No	<p>Specifies the number of minutes that an asset is available to end users after they have purchased or started viewing the asset.</p> <p>Default value "2880" must be used corresponding to 48 hours rental period</p>

5.7.3 rightsMetadata Example

```

<rightsMetadata>
  <licensingWindowStart>2016-09-19T06:00:00</licensingWindowStart>
  <licensingWindowEnd>2019-03-08T05:59:59</licensingWindowEnd>
  <availabilityWindowStart>2016-09-19T06:00:00</availabilityWindowStart>
  <availabilityWindowEnd>2019-03-06T05:59:59</availabilityWindowEnd>
  <daystoLastChance>0</daystoLastChance>
  <newReleaseWindow>0</newReleaseWindow>
  <maximumViewingLimit>2880</maximumViewingLimit>
</rightsMetadata>

```

5.8 asset Node (assetPackages -> assetPackage -> asset)

5.8.1 asset Description

The asset node describes the metadata for the following:

- Poster
- Trailer
- Feature

The required metadata element is a container for the child elements that define the asset metadata for the feature, or for its poster or trailer.

NOTE: You include one asset section for the feature, one for its poster, and one for its trailer.

Next section details asset Node Attributes.

5.8.2 asset Attributes

asset Attributes	Node	Constraints	Required?	Description
assetName	String	Max: 255 chars	Yes	Specifies the name of the sub-asset. Use a descriptive name for the sub-asset here.
Type	String Possible values: "feature", "trailer", "poster"		Yes	Indicates the type of sub-asset. Valid values are: <ul style="list-style-type: none"> feature. Indicates that the section defines the metadata for the main feature program. trailer. Indicates that the section defines the metadata for the feature's trailer. poster. Indicates that the section defines the metadata for the feature's poster.
Profile	String Used only with types: feature and trailer Default "no-encode" value must be used.		No	Defines the import profile to use for a movie asset. The profile describes the trick stream settings to use. Should use Value: "no-encode" to enforce that Trick streams are generated for the asset using the high-performance option.

EXAMPLE:

```
<asset asset_name="Winx Club (s3): ep 19 Feature" type="feature" profile="no-encoding">
```


5.8.3 asset Child Elements

asset Node Elements	Child Description
metadata	Contains poster, trailer or feature specific metadata information
Content	Contains poster, trailer or feature specific content information. This element must match corresponding media file (for poster, trailer and feature).

5.8.4 asset Example XML

Example of a complete list of asset nodes, attributes and child elements for trailer, feature and poster assets

i) IPTV

```
<asset type="feature" asset_name="Babar, King of the Elephants Feature" profile="no-encoding">
  <metadata>
    <assetID>765512</assetID>
    <providerID>XXX</providerID>
    <HD>false</HD>
    <rating value="L" rating_system="DJCTQ" />
    <audio>Stereo</audio>
  </metadata>
  <content>title01.ism</content>
</asset>
<asset type="trailer" asset_name="Babar, King of the Elephants Trailer" profile="no-encoding">
  <metadata>
    <assetID>765512</assetID>
    <providerID>XXX</providerID>
    <HD>false</HD>
    <rating value="L" rating_system="DJCTQ" />
    <audio>Stereo</audio>
  </metadata>
  <content>trailer.ism</content>
</asset>
<asset type="poster" asset_name="Babar, King of the Elephants Poster">
  <metadata>
    <assetID>765512</assetID>
    <providerID>ODG</providerID>
    <language_iso639>pt</language_iso639>
    <rating value="L" rating_system="DJCTQ" />
  </metadata>
  <content>poster.jpg</content></asset>
```

ii) OTT / PDL

```
<asset Verb="" type="feature" asset_name="Eleanor Secret Feature" >
  <metadata>
    <assetID>764234</assetID>
    <providerID>ODG</providerID>
    <HD>true</HD>
    <language_iso639>pt</language_iso639>          <!-- Default Language Audio (iso639) -->
    <rating value="L" rating_system="DJCTQ"/>
    <audio>Stereo</audio>                          <!-- Available Audio -->
    <audio>Dolby Digital 5.1</audio>                <!-- Available Audio -->
    <subtitleLanguage_iso639>pt</subtitleLanguage_iso639> <!-- Subtitle Available (iso639) -->
    <subtitleLanguage_iso639>en</subtitleLanguage_iso639> <!-- Subtitle Available (iso639) -->
  </metadata>
  <content>764234.mpd</content>
</asset>

<asset Verb="" type="trailer" asset_name="Eleanor Secret Trailer" >
  <metadata>
    <assetID>764234</assetID>
    <providerID>ODG</providerID>
    <HD>true</HD>
    <language_iso639>pt</language_iso639>
    <rating value="L" rating_system="DJCTQ"/>
    <audio>Stereo</audio>                          <!-- Available Audio -->
    <dubbedLanguage_iso639>pt</dubbedLanguage_iso639>
    <subtitleLanguage_iso639>pt</subtitleLanguage_iso639> <!-- Subtitle Available (iso639) -->
    <subtitleLanguage_iso639>en</subtitleLanguage_iso639> <!-- Subtitle Available (iso639) -->
  </metadata>
  <content>764234_tr.mpd</content>
</asset>

<asset Verb="" type="poster" asset_name="Eleanor Secret Poster" >
  <metadata>
    <assetID>764234</assetID>
    <providerID>ODG</providerID>
    <rating value="L" rating_system="DJCTQ"/>
    <HD>false</HD>
  </metadata>
  <content>poster.jpg</content>
</asset>
```

Important Notes:

<language_iso639>pt</language_iso639> refers to the default content language. An audio file for this language must be included in the media package)

<audio>Stereo</audio> refers to the audio format available in the media package. This node should be include for each audio tracks available in the package, namely: Stereo 64 kbps (Stereo) , Stereo 96 kbps (Stereo HD), Dolby 5.1 96 kbps (Dolby Digital 5.1) and Dolby 5.1 256 kbps (Dolby Digital 5.1 HD), as bellow:

```
<asset asset_name="XXXX" type="feature">
  <metadata>
    <assetID>873693</assetID>
    <providerID>ODG</providerID>
    <HD>true</HD>
    <language_iso639>en</language_iso639>
    <screenFormat>Widescreen</screenFormat>
    <audio>Stereo</audio>          <!-- Stereo 64kbps-->
    <audio>Dolby Digital 5.1</audio> <!-- Dolby 94kbps -->
    <audio>Stereo HD</audio>       <!-- Stereo 94 kbps -->
    <audio>Dolby Digital 5.1 HD</audio> <!--Dolby 256 kbps-->
    <dubbedLanguage_iso639>por</dubbedLanguage_iso639>
  </metadata>
  <content>xxxxxx</content>
</asset>
```

<dubbedLanguage_iso639>pt</dubbedLanguage_iso639> refers to the alternative audio languages. For each dubbedLanguage an audio file must be included in the media package.

<subtitleLanguage_iso639>en</subtitleLanguage_iso639> refers to the supported subtitle languages. For each subtitleLanguage an audio file must be included in the media package

For more information on this metadata nodes please verify section 5.9.2.

5.9 metadata Node (assetPackages -> assetPackage -> asset -> metadata)

5.9.1 metadata Description

Contains poster, trailer or feature specific metadata information

5.9.2 metadata Child Elements

metadata Elements	Child	Constraints	Required?	Description
assetID	Int See item 3.1.1.		Yes trailer, feature, Poster	Indicates the asset Id Note: Must be the same used in metadata xml node
providerID	String		Yes trailer, feature, Poster	Indicates the provider Id Note: Must be the same used in metadata xml node The value must be agreed with Oi Payout and Programming teams.
screenFormat	String Possible Values: Widescreen, Letterbox, Standard		No Only for Trailer, Feature	Defines the type of screen aspect it supports. Possible Values: Widescreen, Letterbox, Standard
HD	Boolean		Yes trailer, feature, Poster	Defines whether the asset is in HD format.
Audio	String Possible values: Dolby ProLogic, Dolby Digital,		Yes Only for Trailer,	Defines the audio technology used for an asset's sound. If the asset supports multiple audio technologies, you can specify more than one audio child

	Stereo, Mono, Dolby Digital 5.1, Dolby Surround	Feature	<p>element.</p> <p>The value Stereo is mandatory.</p> <p>Possible values:</p> <p>Dolby ProLogic, Dolby Digital, Stereo, Mono, Dolby Digital 5.1, Dolby Surround</p>
streamFormat	<p>String</p> <p>Possible Values:</p> <p>smoothstreaming</p>	<p>No</p> <p>Only for Trailer, Feature</p>	<p>Defines which format should be used to generate the VOD asset.</p> <p>Possible Values:</p> <p>smoothstreaming</p>
language_iso639	<p>String</p> <p>According to iso_639 language code specific</p> <p>Optional element</p> <p>Format: three-letter language code as specified by the ISO-639-2 specification.</p> <p>Occurrences: Zero or more</p>	<p>No</p> <p>Trailer</p> <p>Poster</p> <p>Feature</p>	<p>Used to specify the language of the sub-asset. This is not displayed in the client.</p> <p>Note Ensure the language code is valid and does not contain an empty string or else the code is replaced by the default language code, unless a language code mapping (from language X to language Y) is defined in the VODimport.xml file.</p> <p>Example:</p> <pre><language_iso639>pt</language_iso639></pre>
subtitleLanguage_iso639	<p>String</p> <p>According to iso_639 language code specific</p> <p>Optional element</p> <p>Values: ISO 639-2 language code</p> <p>Occurrence: Zero or more</p>	<p>No</p> <p>Trailer</p> <p>Poster</p> <p>Feature</p>	<p>Identifies the languages that support the asset's subtitles. If there is more than one language used for the asset's subtitles, specify additional subtitleLanguage_iso639 child elements.</p> <p>Note Ensure the language code is valid and does not contain an empty string or else the code is replaced by the default language code, unless a language code mapping (from language X to language Y) is defined in the VODimport.xml file</p> <p>Example:</p> <pre><subtitlelanguage_iso639>es</subtitlelanguage_iso639></pre>

			<subtitlelanguage_iso639>en</subtitlelanguage_iso639>
dubbedlanguage_iso639	String According to iso_639 language code specific Optional element Values: ISO 639-2 language code Occurrences: Zero or more	No Trailer Poster Feature	Identifies the languages in which the asset's audio is dubbed over. If there is more than one language used for dubbing over the asset's audio, specify additional dubbedLanguage_iso639 child elements. Note: Ensure the language code is valid and does not contain an empty string or else the code is replaced by the default language code, unless a language code mapping (from language X to language Y) is defined in the VODimport.xml file. Example: <dubbedlanguage_iso639>fr</dubbedlanguage_iso639> <dubbedlanguage_iso639>pt</dubbedlanguage_iso639>

5.9.3 metadata Child Elements Example

```

<asset asset_name="Castaway__TVOD_feature" type="feature">
  <metadata>
    <assetID>qwer43626201723051022</assetID>
    <providerID>Astral</providerID>
    <streamFormat>RTP</streamFormat>
    <HD>true</HD>
    <language_iso639>en </language_iso639> <!--asset original language-->
    <subtitlelanguage_iso639>pt-BR</subtitlelanguage_iso639> <!--subtitle language-->
    <subtitlelanguage_iso639>es</subtitlelanguage_iso639> <!--one entry for each available subtitle-->
    <subtitlelanguage_iso639>en</subtitlelanguage_iso639>
    <dubbedlanguage_iso639>pt-BR</dubbedlanguage_iso639>
    <dubbedlanguage_iso639>es</dubbedlanguage_iso639>
    <dubbedlanguage_iso639>fr</dubbedlanguage_iso639>
    <rating rating_system="Movie" value="14A"/>
    <runTimeSeconds>7200</runTimeSeconds>
  </metadata>
  <content>riverbank.ts</content>
</asset>

```

5.10 content Node (assetPackages -> assetPackage -> asset -> content)

5.10.1 content Description

Contains poster, trailer or feature specific content information

5.10.2 content Child Elements

Content child has no elements. Just fill the value with asset file name. See example in the following section.

5.11 DTH Node - Specific attributes for PDL Assets

5.11.1 DTH Description

PDL (progressive download) content specific attributes are grouped in a XML commented block beginning with a delimiter string named “DTH” and placed just before

This commented block must include the following elements:

- i) businessRule
- ii) userNibble
- iii) audioLanguage
- iv) subtitleLanguage
- v) soundType

5.11.2 DTH Child Elements

DTH Elements	Child	Constraints	Required?	Description
businessRule	String	See section 5.11.2.1 for supported values	Yes	PDL Business rule to be applied to a specific VOD or SVOD. Note: The value must be agreed with Oi Payout and Programming teams.
UserNibble2	Integer	See section 5.11.2.2 for supported values	Yes	Content classification regarding target audience (children, family, adult), type of language and violence parameters.
audioLanguage	String	According to iso_639 language code specific Expected to be an ISO-639 3-character language code.	Yes	Defines the content supported audio language code in the format iso_639. Supported languages are separated by “,” character. Example: <audioLanguage>por;eng</audioLanguage> String restricted to 3 ASCII characters. Expected to be an ISO-639 3-character language code.

subtitleLanguage	String According to iso_639 language code specific Expected to be an ISO-639 3-character language code.		Defines the content supported subtitles language code in the format iso_639. Supported languages are separated by “,” character. Example: <subtitleLanguage> por;eng <subtitleLanguage/> For assets with no subtitle this tag should be sent as follow: <subtitleLanguage> <subtitleLanguage/>
soundType	String Possible values: 'Monaural', 'Simple Stereo', 'Surround Sound', 'Digital Surround'	Yes	Defines the audio technology used for an asset's sound. Note: Case sensitive field Enumerated string type with the following values: 'Monaural', 'Simple Stereo', 'Surround Sound', 'Digital Surround'

5.11.2.1 businessRule Element values

The following table describes possible values to use with businessRule element separated by content type (VOD, SVOD and Trailer).

SVODs	
Canal	Business Rules ID
Telecine	1500
FOX	1501
FX	1502
TNT	1503
Multishow	1504
GNT	1505
Globosat +	1506
Universal	1507
Space	1508
SporTV	1509
Fox Sports	1510
ESPN	1511
Esporte Interativo	1512
OFF	1513
Combate	1514
Cartoon Network	1515

SVODs	
Canal	Business Rules ID
Fox Life	1517
Viva	1518
BIS	1519
Discovery	1520
Animal Planet	1521
NatGeo	1522
Globonews	1523
Sexy Prive	1524
Premiere FC	1525
Coleção Oi	1526
Canal Brasil	1539

VODs	
Canal	Business Rules ID
TVOD	103
TVOD (Adult PB)	1401

5.11.2.2 userNibble2 Element values

userNibble2 Value	Criteria			Displayed Icons
1	EVENT_RATING_CHILDREN			
2	EVENT_RATING_FAMILY			
3	EVENT_RATING_FAMILY	EVENT_RATING_LANGUAGE		
4	EVENT_RATING_LANGUAGE			
5	EVENT_RATING_LANGUAGE	EVENT_RATING_VIOLENCE		
6	EVENT_RATING_LANGUAGE	EVENT_RATING_HORROR		
7	EVENT_RATING_LANGUAGE	EVENT_RATING_ADULT		
8	EVENT_RATING_LANGUAGE	EVENT_RATING_VIOLENCE	EVENT_RATING_ADULT	
9	EVENT_RATING_LANGUAGE	EVENT_RATING_HORROR	EVENT_RATING_ADULT	
10	EVENT_RATING_VIOLENCE			
11	EVENT_RATING_VIOLENCE	EVENT_RATING_HORROR		
12	EVENT_RATING_VIOLENCE	EVENT_RATING_ADULT		
13	EVENT_RATING_HORROR			
14	EVENT_RATING_HORROR	EVENT_RATING_ADULT		
15	EVENT_RATING_ADULT			

Example:

For content rated Adult + Horror + Language you should use userNibble2 value 9:
 <userNibble2>9</userNibble2>

5.11.3 DTH Example**Example:**

```

    <content>poster.jpg</content>
  </asset>
  <!-- DTH

  <businessRule>103</businessRule>
  <userNibble2>6</userNibble2>
  <audioLanguage>por;eng</audioLanguage>
  <subtitleLanguage>por;eng</subtitleLanguage>
  <soundType>Dolby ProLogic</soundType>

  -->
</assetPackage>
</assetPackages>

```


6 Cablelabs File Specification

Cablelabs Metadata describes an asset (such as title and runtime) and defines the business rules (such as suggested price) and the rights information (such as license window) to use for the asset. You can use this information to create or modify asset metadata.

6.1 Cablelabs XML file structure

The normative Cablelabs XML schemas (<http://www.cablelabs.com/namespaces/metadata/xsd/>) comprise the full normative specification. Each of the schemas included with this specification has a unique namespace.

The format of the asset structure within the ADI package for the Title asset is defined as follows:

```
Package
| package metadata
+---title asset
| | title asset metadata
| +-movie asset
| | movie asset metadata
| | movie asset content
| +-poster asset
| | poster asset metadata
| | poster asset content
| +-trailer asset
| | trailer asset metadata
| | trailer asset content
```

Package Metadata:

Spec	Metadata Name	Description	Type	Required vs Optional
AMS	Provider	A unique identifier for the provider of the Asset – represents the business relationship between the MSO and the Asset Provider.	String – ex. "iN Demand" or "HBO"	Req
AMS	Product	An identifier for the product offering.	String (Max 20 Chars)	Req
AMS	Asset_Name	A string containing the identifying name of the asset. Asset names must be unique within a product.	String (Max 50 chars) Ex. "WesCsDracula2000 package"	Req
AMS	Version_Major	An integer representing the major version number.	Integer	Req
AMS	Version_Minor	An integer representing the minor version number.	Integer	Req
AMS	Description	A human-readable string describing the Asset.	String Ex. "Wes Craven's Dracula 2000 asset package"	Req
AMS	Creation_Date	A string representing the date on which the Asset was created.	String – "yyyy-mm-dd"	Req
AMS	Provider_ID	A unique identifier for the provider of the Asset. Uniquely identifies the provider of the asset metadata. NOTE: Value must be agreed with Oi, actually, uses pre-defined codes according with information at section 5.3.2.1	String- Ex. "ODG"	Req
AMS	Asset_ID	An identifier for the asset that is unique within a provider's asset ID space. The unique portable identification of an asset is the combinations of its Provider_ID and its Asset_ID.	Integer Ex: "1234567890"	Req

AMS	Asset_Class	A system-level type for the asset. This is intended to be helpful for the application mapping and routing, and expected to be more general than the Type value for the content. Expected Value is "package".	String	Req
AMS	Verb	A string containing an action to be performed on the asset. The only valid values for the Verb are the empty string ("") and "DELETE"	String	Opt
MOD or SVOD	Provider_Content_Tier	A string representing which provider content tiers are to be identified with the Asset – Can be used to propagate Assets to specific servers.	String – one tier per element. Ex. <App_Data App="MOD" Name="Provider_Content_Tier" Value="HBO1"/> <App_Data App="MOD" Name="Provider_Content_Tier" Value="HBO8"/>	Opt
MOD or SVOD	Metadata_Spec_Version	A string representing the version of the VOD Content Specification for this package.	String "CableLabsVOD1.1"	Req

Title Metadata:

Spec	Metadata Name	Description	Type	Required vs Optional
AMS	Provider	A unique identifier for the provider of the Asset – represents the business relationship between the MSO and the Asset Provider.	String – ex. "iN Demand" or "HBO"	Req
AMS	Product	An identifier for the product offering.	String (Max 20 Chars)	Req
AMS	Asset_Name	A string containing the identifying name of the asset. Asset names must be unique within a product.	String (Max 50 chars) Ex. "WesCsDracula2000title"	Req
AMS	Version_Major	An integer representing the major version number.	Integer	Req
AMS	Version_Minor	An integer representing the minor version number.	Integer	Req
AMS	Description	A human-readable string describing the Asset.	String Ex. "Wes Craven's Dracula 2000 title asset"	Req
AMS	Creation_Date	A string representing the date on which the Asset was created.	String – "yyyy-mm-dd"	Req
AMS	Provider_ID	A unique identifier for the provider of the Asset. Uniquely identifies the provider of the asset metadata. NOTE: Value must be agreed with Oi, actually, uses pre-defined codes according with information at section 5.3.2.1	String- Ex. "ODG"	Req
AMS	Asset_ID	An identifier for the asset that is unique within a provider's asset ID space. The unique portable identification of an asset is the combinations of its Provider_ID and its Asset_ID.	Integer Ex: "1234567890"	Req
AMS	Asset_Class	A system-level type for the asset. This is intended to be helpful for the application mapping and routing, and expected to be more general than the Type value for the content. Expected Value is "title".	String	Req
AMS	Verb	A string containing an action to be performed on the asset. The only valid values for the Verb are the empty string ("") and "DELETE"	String	Opt
MOD or SVOD	Type	The asset or content type that determines how or where it is stored.	"title"	Req
MOD or SVOD	Title_Sort_Name	A string to be used when sorting the title.	String – (max 22 chars) ex. "Blob, The"	Opt
MOD	Subscriber_View_Limit	A string representing a period of time and the maximum number of views over the	String containing the three components (period start	Opt

or SVOD		period of time. The separator shall be a "," between the period start date, period end date and maximum views.	date, period end date, maximum views), one per element Ex. <App_Data App="MOD" Name="Subscriber_View_Limit" Value="2001-11-01,2001-11-15, 5"/> <App_Data App="MOD" Name="Subscriber_View_Limit" Value="2001-12-01,2001-12-15, 5"/>	
MOD or SVOD	Title_Brief	A brief version of the movie title (for display).	String – (max 19 chars)	Req
MOD or SVOD	Title	Movie title (for display).	String – (Max 128 chars—special characters allowed) ex. "Wes Craven's Dracula 2000".	Req
MOD or SVOD	EIDR	Digital Object Identifier (DOI) from the Entertainment ID Registry [EIDR]	String – ex. "10.5240/BBC1-9043-7D29-C349-7055-A"	Opt
MOD or SVOD	ISAN	International Standard Audiovisual Number (ISAN)	String – ex. "1881-66C7-3420-000-7-9F3A-02450-U"	Opt
MOD or SVOD	Episode_Name	The name of an individual episode of a series.	String – ex. "Hot Child in the City"	Opt
MOD or SVOD	Episode_ID	A unique identifier given to each individual episode of a series.	String – ex. "Episode #45"	Opt
MOD or SVOD	Summary_Long	Movie summary in full.	String – (Max 4096 chars—special characters allowed)	Opt
MOD or SVOD	Summary_Medium	Movie summary paragraph – for EPG-like description.	String – (Max 1024 chars—special characters allowed)	Opt
MOD or SVOD	Summary_Short	Movie summary: sentence.	String – (Max 256 chars—special characters allowed) – ex "Samantha is hired to plan a bat mitzvah; Charlotte tries to improve life with Trey."	Req
MOD or SVOD	Rating	Defines the overall ratings information for an asset, including the system used and the ratings value assigned to the asset. You can assign a different rating to the asset's feature, trailer, and poster files. The rating_system attribute defines the system used to assign a rating to the asset; Oi uses Brazilian rating_system DJCTQ that defines the following available values: "L", "10", "12", "14", "16", "18" The value "A" is also available.	String, one rating per element, <App_Data App="MOD" Name="Rating" Value="14"/> <App_Data App="MOD" Name="Rating" Value="L"/>	Req
MOD or SVOD	Parental_Rating_Descriptor	Summary of the main rating indicators inserted in the asset rated. Format: Supports up to three comma separated descriptors, according to Brazilian rating descriptors guide. See section 5.5.2.1.1 for supported values. Each descriptor must be separated by a ",". Note: If there is no rating descriptor associated with the content, then the tag must be empty.	String, comma separated elements (up to 3), <App_Data App="MOD" Name="Parental_Rating_Descriptor" Value="Nudez, Drogas, Medo"/>	Req
MOD or	MSORating	MSO applied rating for content not otherwise rated.	String, one rating per element, <App_Data App="MOD"	Opt

SVOD			Name="MSORating" Value="Age-14"/>	
MOD or SVOD	Advisories	One content advisory code.	String, one advisory per element (max 1024 chars for all advisories) <App_Data App="MOD" Name="Advisories" Value="S"/> <App_Data App="MOD" Name="Advisories" Value="V"/> There are at most six occurrences of "Advisories", with a combined maximum of at most 12 characters.	Opt
MOD or SVOD	Audience	Field to indicate target audience	String, one rating per element, <App_Data App="MOD" Name="Audience" Value="Adult"/>	Opt
MOD or SVOD	Closed_Captioning	A "Y" or "N" flag indicating Closed Captioning encoding.	String "Y" or "N"	Req
MOD or SVOD	Run_Time	Run time.	String – "hh:mm:ss"	Req
MOD or SVOD	Display_Run_Time	Run time (for display).	String – "hh:mm"	Req
MOD or SVOD	Year	Year of release.	String – "yyyy"	Req
MOD or SVOD	Country_of_Origin	The Country from where the title originates, e.g., "US" for United States	String – (Max 2 chars)Using the 2-letter country code as defined in [ISO 3166-1]	Opt
MOD or SVOD	Actors	Actors – Last Name,First Name (for searching). The separator MUST be a "," between the last name and the first name. On-air talent MAY be included.	String – (Max 35 per actor) – one actor per element. Ex. <App_Data App="MOD" Name="Actors" Value="Willis,Bruce"/> <App_Data App="MOD" Name="Actors" Value="Gere,Richard"/>	Opt
MOD or SVOD	Actors_Display	Actors -- A human-readable string for display; use Name 1, Name 2.	String (1024 chars total all Actors) Ex: "Tom Hanks, Robin Williams"	Opt
MOD or SVOD	Writer_Display	Writer(s)—A human-readable string for display; use Name 1, Name 2.	String (1024 chars total all Writers) Ex: "Francis Ford Coppola, Mario Puzo"	Opt
MOD or SVOD	Director	Directors– Last Name,First Name The separator shall be a "," between the last name and the first name.	String – (Max 35 per director) – one director per element. <App_Data App="MOD" Name="Director" Value="Puzo,Mario"/> <App_Data App="MOD" Name="Director" Value="Lucas,George"/>	Opt
MOD or SVOD	Producers	Producers– Last Name,First Name The separator shall be a "," between the last name and the first name.	String – (Max 91 per producer, 1024 all producers) – one producer per element. <App_Data App="MOD" Name="Producers" Value="Barrymore,Drew"/> <App_Data App="MOD" Name="Producers" Value="Lucas,George"/>	Opt
MOD or SVOD	Studio	Studio (for display).	String - (Max 32 chars) ""Use [STUDIO] for Studio Name.	Opt

MOD or SVOD	Category	Defines how the asset is presented in the VOD Storefront screen. The entries for this element are case-sensitive and can be used for category validation. NOTE: Includes the full path of category within the catalog. Example: "Coleção Oi/Coleção Oi Infantil/Séries/Winx Club/Temp 03". Please, contact Oi's Programming Team to complete this item in order to have the correct presentation in a store front VOD library.	String - Max: 255 chars, MinOccurs:1 and MaxOccurs:100 . <App_Data App="MOD" Name="Category" Value="Movies/Movies a-z"/> <App_Data App="MOD" Name="Category" Value="Movies/Comedy"/> <App_Data App="MOD" Name="Category" Value="TV/Home%2FCasa"/>	Req
MOD or SVOD	Season_Premiere	A flag indicating Title is a Season Premiere.	String "Y" or "N"	Opt
MOD or SVOD	Season_Finale	A flag indicating Title is a Season Finale.	String "Y" or "N"	Opt
MOD or SVOD	Genre	Genres – Subject-matter classification of the show. Uses pre-defined codes according with information at section 5.4.2.1	String – There may be at most 5 occurrences of "Genre" for one Title. Each value is at most 32 characters long. <App_Data App="MOD" Name="Genre" Value="Action"/> <App_Data App="MOD" Name="Genre" Value="Comedy"/>	Req
MOD or SVOD	Show_Type	Defines the show type of the asset and also indicates the type of content. This is relevant only with asset_type of VOD. If a program has the MSEP_G_MOVIE flag, it is considered a movie; otherwise, it is considered a TV show.	String. Possible Values: <ul style="list-style-type: none"> "Movie" "TVShow" 	Req
MOD or SVOD	Chapter	Chapter Location and Heading pair, the location formatted in SMPTE format (HH:MM:SS:FF). The separator shall be a "," between the code and heading. Note that SMPTE time codes must be monotonically increasing although ordering of elements in SMPTE time code order is not required.	String (max 128 chars, 1024 total for all headings) containing the two components (SMPTE time code, heading), one per element. Ex. <App_Data App="MOD" Name="Chapter" Value="01:01:01:01,Opening Scene"/> <App_Data App="MOD" Name="Chapter" Value="01:30:01:01,Max Encounters A Problem"/>	Opt
MOD or SVOD	Box_Office	Box office dollars of revenue.	Integer	Opt
MOD or SVOD	Propagation_Priority	An integer from 1(high) to 10(low) that can be used to assist with determining the priority of propagation within an MSO network. NOTE: This value is set within a Provider/Product, therefore it cannot be used to compare assets outside of that group.	Integer	Opt
MOD or SVOD	Billing_ID	Content provider asset ID to tie into royalty reporting.	Alphanumeric Base 36 (0-9 and A-Z. Max 5 places)	Req
MOD or SVOD	Licensing_Window_Start	Start date and time of licensing window; if no time assume 00:00:00; all times are viewer local time on a 24 hour clock.	String – "yyyy-mm-dd" or "yyyy-mmddThh: mm:ss" or "yyyy-mmddThh: mm"	Req
MOD or SVOD	Licensing_Window_End	Ending date and time of licensing window; if no time assume 23:59:59; all times are viewer local time on a 24 hour clock.	String – "yyyy-mm-dd" or "yyyy-mmddThh: mm:ss" or "yyyy-mmddThh: mm"	Req
MOD or SVOD	Avaiability_Window_Start	Start date and time of licensing window; if no time assume 00:00:00; all times are viewer local time on a 24 hour clock.	String – "yyyy-mm-dd" or "yyyy-mmddThh: mm:ss" or "yyyy-mmddThh: mm"	Req
MOD	Avaiability_Window_End	Ending date and time of licensing window; if	String – "yyyy-mm-dd" or	Req

or SVOD	Window_End	no time assume 23:59:59; all times are viewer local time on a 24 hour clock.	"yyyy-mmddThh: mm:ss" or "yyyy-mmddThh: mm"	
MOD or SVOD	Preview_Period	Preview period in seconds.	Integer	Req (*Opt for SVOD)
MOD or SVOD	Home_Video_Window	Number of days between Home Video release to PPV/MOD Release.	Integer	Opt
MOD or SVOD	Display_As_New	Number of days from the Licensing_Window_Start date that the application should show this title as "New" or similar marking.	Integer – number of days	Opt
MOD or SVOD	Display_As_Last_Chance	Number of days from the Licensing_Window_End date that the application should show this title as "Last Chance" or similar marking	Integer – number of days	Opt
MOD or SVOD	Maximum_Viewing_Length	Duration of time defining the maximum amount of time a title can be made available for viewing once selected for purchase by a customer.	String – "DD:HH:MM" ex. "00:24:00"	Opt
MOD or SVOD	Provider_QA_Contact	A contact identifier in case there are quality issues relating to this movie.	String	Req (*Opt for SVOD)
MOD or SVOD	Contract_Name	Identifying name of the contract under which this title is licensed.	String	Opt
MOD or SVOD	Suggested_Price	Suggested Price to assist in determining the retail pricing.	Currency – ex. 3.95	Opt
MOD or SVOD	Distributor_Royalty_Percent	Percentage split of the royalty over the minimum that goes to the Distributor (i.e., iN DEMAND). Maximum of 2 digits right of decimal allowed.	Numeric-percentage – ex. 52.5	Opt
MOD or SVOD	Distributor_Royalty_Minimum	Minimum royalty in currency that goes to the Distributor (i.e., iN DEMAND). Maximum of 3 digits right of decimal allowed.	Currency – ex. 1.995	Opt
MOD or SVOD	Distributor_Royalty_Flat_Rate	Flat rate royalty in currency that goes to the Distributor (i.e., iN DEMAND). Maximum of 3 digits right of decimal allowed.	Currency – ex. 1.995	Opt
MOD or SVOD	Distributor_Name	The name of the distributor (for reporting).	String (Max 128 Chars)	Opt
MOD or SVOD	Studio_Royalty_Percent	Percentage split of the royalty over the minimum that goes to the Studio (i.e., Warner Brothers). Maximum of 2 digits right of decimal allowed.	Numeric-percentage – ex. 52.5	Opt
MOD or SVOD	Studio_Royalty_Minimum	Minimum royalty in currency that goes to the Studio (i.e., Warner Brothers). Maximum of 3 digits right of decimal allowed.	Currency – ex. 1.995	Opt
MOD or SVOD	Studio_Royalty_Flat_Rate	Flat rate royalty that goes to the Studio (i.e., Warner Brothers). Maximum of 3 digits right of decimal allowed.	Currency – ex. 1.995	Opt
MOD or SVOD	Studio_Name	The name of the studio (for reporting).	String (Max 100 Chars)	Opt
MOD or SVOD	Studio_Code	A code utilized for billing purposes, typically three digits.	String – (Max 8 char).	Opt
MOD or SVOD	Programmer_Call_Letters	A sequence of characters to be displayed with a title, providing a "brand label" for the title.	String – (Max 6 characters). Restricted to Capital Letters (A-Z), Lower Case Letters (a-z), Numbers (0-9) and/or Approved	Opt

			Symbols (ampersand, exclamation point and period) At most one per title. Examples: "TNT", "ESPN2", "RIPE".	
MOD or SVOD	Recording_Artist	Listing that provides the recording artist of a song in human readable form. Examples include – Bare Naked Ladies, REM, Justin Timberlake, and U2	String – (Max 25 per one element). One Recording_Artist per asset. Recording_Artist = Bare Naked Ladies Recording_Artist = REM Recording_Artist = Justin Timberlake	Req. if content is a music video or concert
MOD or SVOD	Song_Title	Listing that provides the name of the song or concert in the video asset. Examples include – "This One Goes Out to the One I Love", "Sexy Back", "It's All Been Done", "War Tour".	String – (Max 40 per one element). One Song_Title per asset. Song_Title = This One Goes Out to the One I Love Song_Title = Sexy Back	Req. if content is a music video or concert

Movie/trailer Metadata:

Spec	Metadata Name	Description	Type	Required vs Optional
AMS	Provider	A unique identifier for the provider of the Asset – represents the business relationship between the MSO and the Asset Provider.	String – ex. "iN Demand" or "HBO"	Req
AMS	Product	An identifier for the product offering.	String (Max 20 Chars)	Req
AMS	Asset_Name	A string containing the identifying name of the asset. Asset names must be unique within a product.	String (Max 50 chars) Ex. "WesCsDracula2000title"	Req
AMS	Version_Major	An integer representing the major version number.	Integer	Req
AMS	Version_Minor	An integer representing the minor version number.	Integer	Req
AMS	Description	A human-readable string describing the Asset.	String Ex. "Wes Craven's Dracula 2000 title asset"	Req
AMS	Creation_Date	A string representing the date on which the Asset was created.	String – "yyyy-mm-dd"	Req
AMS	Provider_ID	A unique identifier for the provider of the Asset. Uniquely identifies the provider of the asset metadata. NOTE: Value must be agreed with Oi, actually, uses pre-defined codes according with information at section 5.3.2.1	String- Ex. "ODG"	Req
AMS	Asset_ID	An identifier for the asset that is unique within a provider's asset ID space. The unique portable identification of an asset is the combinations of its Provider_ID and its Asset_ID.	Integer Ex: "1234567890"	Req
AMS	Asset_Class	A system-level type for the asset. This is intended to be helpful for the application mapping and routing, and expected to be more general than the Type value for the content. Expected Value is "movie" or "trailer".	String	Req
AMS	Verb	A string containing an action to be performed on the asset. The only valid values for the Verb are the empty string ("") and "DELETE"	String	Opt
MOD or SVOD	Type	The asset or content type that determines how or where it is stored.	"movie" or "trailer"	Req
MOD or SVOD	Audio_Type	Audio_Type Audio Types available for this content (Dolby ProLogic, Dolby Digital, Stereo, Mono, Dolby 5.1). NOTE: All audio shall be encoded Dolby Digital AC-3, NOT MPEG-2 Audio.	Type: String ("Dolby ProLogic", "Dolby Digital", "Stereo", "Mono", or "Dolby 5.1")	Req

MOD or SVOD	Languages	Available languages. Two character language code from ISO 639	Type: ISO-639 formatted string, one per element. Ex: "pt", "en"	Opt
MOD or SVOD	Subtitle_Languages	Available subtitle languages. Two character language code from ISO 639	Type: ISO-639 formatted string, one per element. Ex: "pt", "en"	Opt
MOD or SVOD	Dubbed_Languages	Available dubbed languages. Two character language code from ISO 639	Type: ISO-639 formatted string, one per element. Ex: "pt", "en"	Opt
MOD or SVOD	Content_FileSize	The size of the file, in bytes.	Type: Integer	Req
MOD or SVOD	Content_CheckSum	A string containing a hex number representing an MD5 [RFC 1321] message digest value for Quality Assurance.	Type: String (hexadecimal, 32 characters.)	Req
MOD or SVOD	Resolution	Other values may be supplied. Currently, defined values are one of "480i", "720p", "1080i", or "1080p".	String	Req
MOD or SVOD	Frame_Rate	Other values may be supplied. Currently, defined values are one of 24, 30, or 60.	Integer	Req
MOD or SVOD	Codec	Other values may be supplied. Currently, defined values are one of "MPEG2" or when AVC/MPEG4 one of "AVC MP@L30", "AVC MP@L40", "AVC MP@L42", "AVC HP@L30", "AVC HP@L40", "AVC HP@L42"	String	Req
MOD or SVOD	Bit_Rate	The maximum overall bit rate of the included content, in kilobits per second.	Numeric – ex. 3750	Req

Poster Metadata:

Spec	Metadata Name	Description	Type	Required vs Optional
AMS	Provider	A unique identifier for the provider of the Asset – represents the business relationship between the MSO and the Asset Provider.	String – ex. "iN Demand" or "HBO"	Req
AMS	Product	An identifier for the product offering.	String (Max 20 Chars)	Req
AMS	Asset_Name	A string containing the identifying name of the asset. Asset names must be unique within a product.	String (Max 50 chars) Ex. "WesCsDracula2000title"	Req
AMS	Version_Major	An integer representing the major version number.	Integer	Req
AMS	Version_Minor	An integer representing the minor version number.	Integer	Req
AMS	Description	A human-readable string describing the Asset.	String Ex. "Wes Craven's Dracula 2000 title asset"	Req
AMS	Creation_Date	A string representing the date on which the Asset was created.	String – "yyyy-mm-dd"	Req
AMS	Provider_ID	A unique identifier for the provider of the Asset. Uniquely identifies the provider of the asset metadata. NOTE: Value must be agreed with Oi, actually, uses pre-defined codes according with information at section 5.3.2.1	String- Ex. "ODG"	Req
AMS	Asset_ID	An identifier for the asset that is unique within a provider's asset ID space. The unique portable identification of an asset is the combinations of its Provider_ID and its Asset_ID.	Integer Ex: "1234567890"	Req
AMS	Asset_Class	A system-level type for the asset. This is intended to be helpful for the application mapping and routing, and expected to be more	String	Req

		general than the Type value for the content. Expected Value is "poster".		
AMS	Verb	A string containing an action to be performed on the asset. The only valid values for the Verb are the empty string ("") and "DELETE"	String	Opt
MOD or SVOD	Type	The asset type that determines how or where it is stored (e.g., in the repository). Values are expected to be: "movie", "box cover", "poster", and "preview" for the corresponding assets. Other asset types can be specified.	"poster"	Req
MOD or SVOD	Image_Aspect_Ratio	The pixel aspect ratio for the image (e.g., "320x240").	String	Req
MOD or SVOD	Content_FileSize	File Size (in bytes) of the included content for Quality Assurance & processing.	Integer – unsigned 64 bit	Req
MOD or SVOD	Content_CheckSum	A string containing a hex number representing a MD5 (RFC 1321) message digest value for Quality Assurance.	String - Hex (32 chars)	Req

DTH Child Items:

Spec	Metadata Name	Description	Type	Required vs Optional
MOD or SVOD	businessRule	PDL Business rule to be applied to a specific VOD or SVOD.	String See section 5.11.2.1 for supported values Note: The value must be agreed with Oi Payout and Programming teams	Req
MOD or SVOD	UserNibble2	Content classification regarding target audience (children, family, adult), type of language and violence parameters.	Integer See section 5.11.2.2 for supported values	Req
MOD or SVOD	audioLanguage	Defines the content supported audio language code in the format iso_639. Supported languages are separated by “,” character. Example: <audioLanguage>por;eng<audioLanguage/> String restricted to 3 ASCII characters. Expected to be an ISO-639 3-character language code.	String According to iso_639 language code specific Expected to be an ISO-639 3-character language code.	Req
MOD or SVOD -	subtitleLanguage	Defines the content supported subtitles language code in the format iso_639. Supported languages are separated by “,” character. Example: <subtitleLanguage>por;eng<subtitleLanguage/> For assets with no subtitle this tag should be sent as follow: <subtitleLanguage> <subtitleLanguage/>	String According to iso_639 language code specific Expected to be an ISO-639 3-character language code.	Opt
MOD or SVOD	soundType	Defines the audio technology used for an asset's sound. Note: Case sensitive field Enumerated string type with the following values:	String Possible values: 'Monaural', 'Simple Stereo', 'Surround Sound', 'Digital	Req

		'Monaural', 'Simple Stereo', 'Surround Sound', 'Digital Surround'	Surround'	
--	--	---	-----------	--

Each inner node asset has 2 child nodes:

- i) **metadata** (minOccurs:1 / maxOccurs:1),
- ii) **content** (minOccurs:1 / maxOccurs:1).

Note: If trailer is not available there is no need to include asset node with attribute type="trailer". The maximum number of Assets nodes is 3 (movie, poster, trailer)

Example file structure:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE ADI SYSTEM "ADI.DTD">
<ADI>
  <Metadata>
    <AMS Asset_Class="package" Asset_ID="000001" Asset_Name="Asset_Name" Creation_Date="2019-01-01" Description="Description" />
    <App_Data App="MOD" Name="Metadata_Spec_Version" Value="CableLabsVOD1.1" />
  </Metadata>
  <Asset>
    <Metadata>
      <Content Value="Asset_Name.mpg" />
    </Metadata>
  </Asset>
  <Asset>
    <Metadata>
      <Content Value="Asset_Name_poster.jpg" />
    </Metadata>
  </Asset>
</ADI>
```

Further, DTH child nodes must be sent as a comment as shown bellow:

```

    <App_Data App="MOD" Name="Content_CheckSum" Value="
    5E605A774B8195D7541FF465353852F8" />
    <App_Data App="MOD" Name="Type" Value="poster" />
  </Metadata>
  <Content Value="123456789_poster.jpg" />
</Asset>
<!-- DTH
<businessRule>1507</businessRule>
<userNibble2>6</userNibble2>
<audioLanguage>por</audioLanguage>
<subtitleLanguage>por</subtitleLanguage>
<soundType>Simple Stereo</soundType> -->
</Asset>
</ADI>
```

A full sample of Cablelabs metadata can be found at Appendix B.

6.2 Cablelabs File Name

Cablelabs file name is the same of Mezzanine (XML), the name of file must be metadata.xml.

7 Update Specification

7.1 Update scope

They are considered as update, cases that require modification of values of metadatas, such as:

- New license dates;
- New prices;
- Change categories;
- Content naming, etc.

To be considered as update, the content must be within the validity of the license to use the content.

Changes in the main media or trailer are not part of the update process, requiring removal of the content and consequent re-insertion of the content.

7.2 Update Folder/File Structure

(S)VODs to be updated by Oi providers must be packaged in a folder with the following structure:

- ProviderID-AssetID
 - metadata.xml

For update cases, it is not necessary to send the media, only the asset metadata. Since the content must be unique across all Oi VOD services platforms, such metadata should be unique.

For the case of update, there are no changes in the structure of the metadata, in this way, one must use the already known structure, changing only the information that needs to be changed, , respecting the characteristics of each channel: IPTV, OTT and PDL. *(For metadata specification see chapter 3.2.1)*

.

Appendix A – Metadata XML Example

OTT metadata sample:

```
<?xml version="1.0" encoding="UTF-8"?>
<!--
ODG Export file for OI
Produced: Wed Sep 18 12:48:29 BST 2017
Product: 01295111 -->
<!-- ReportingClass = "For OTT and PDL" -->
<!-- FIRST PUBLISH -->
<assetPackages xmlns:date="http://exslt.org/dates-and-times"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xsi:noNamespaceSchemaLocation="VODmetadata.xsd"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
formatVersion="1.0">
  <assetPackage name="Coleção Oi" verb="" product="SVOD"
providerName="OnDemand" providerID="ODG" type="SVOD"
asset_name="O Mistério de Gods Pocket">
    <metadata>
      <assetID>764237</assetID>
      <providerID>ODG</providerID>
      <showType>Movie</showType>
      <title language="pt">O Mistério de Gods
Pocket</title>
      <sortTitle language="pt">XXX98685</sortTitle>
      <reducedTitle language="pt">O Mistério de Gods
Pocket</reducedTitle>
      <summary language="pt">No bairro operário de Gods
Pocket, o louco enteadado de Mickey Scarpato (Philip Seymour
Hoffman) é morto num acidente em uma construção. Ele
rapidamente tenta enterrar o corpo para se livrar do problema,
mas um jornalista local começa a procurar a verdade por trás
dos fatos, tornando tudo ainda pior. Mickey encontra-se,
então, numa situação complicada, com um corpo que não pode
enterrar, uma mulher que não consegue agradar e uma dívida que
não pode pagar.</summary>
      <shortSummary language="pt">No bairro operário de
 Gods Pocket, o louco enteadado de Mickey Scarpato (Philip
 Seymour Hoffman) é morto num acidente em uma
 construção.</shortSummary>
      <episodeNumber />
      <cgmsaLevel>copynever</cgmsaLevel>
      <rating value="14" rating_system="DJCTQ" />
      <runTimeMinutes>5</runTimeMinutes>
      <release_year>2014</release_year>
      <countryRegionCode>US</countryRegionCode>
      <person mname="" fname="Philip" lname="Seymour
Hoffman" role="Actor" />
      <person mname="" fname="Richard" lname="Jenkins"
role="Actor" />
      <person mname="" fname="Christina"
lname="Hendricks" role="Actor" />
    </metadata>
  </assetPackage>
</assetPackages>
```

```

        <person mname="" fname="John" lname="Slattery"
role="Director" />
        <studio>UNI</studio>
        <studioDisplayName>Universal</studioDisplayName>
        <category>Coleção Oi/Coleção Oi
Cinema/Drama</category>
        <autoDeploy>false</autoDeploy>
        <autoImport>false</autoImport>
        <categorization>
            <category1 name="MSEPG_MOVIE" />
            <category2 name="MSEPGC_MV_Drama" />
        </categorization>
        <genre>MSEPGC_MV_Drama</genre>
        <additionalInfo name="O Mistério de God's Pocket">
            <value
param="RentableOn">OI_IPTV,OI_PC,OI_Mobile,OI_DTH</value>
            <value
param="DownloadableOn">OI_IPTV,OI_PC,OI_Mobile,OI_DTH</value>
            <value
param="CountryGrantRestriction">BR</value>
            <value param="ISPGrantRestriction" />
            <value param="DownloadRentPeriod">1</value>
            <value param="DownloadPrice">0.0</value>
            <value param="ReasonCode">Drogas, Medo,
Violência</value>
        </additionalInfo>
    </metadata>
    <businessMetadata>
        <suggestedPrice>0.0</suggestedPrice>
        <currency_iso3166-2>BR</currency_iso3166-2>
        <billingID>001062975</billingID>
    </businessMetadata>
    <rightsMetadata>
        <licensingWindowStart>2015-09-
15T06:00:00</licensingWindowStart>
        <licensingWindowEnd>2024-06-
14T05:59:59</licensingWindowEnd>
        <availabilityWindowStart>2015-09-
15T06:00:00</availabilityWindowStart>
        <availabilityWindowEnd>2024-06-
12T05:59:59</availabilityWindowEnd>
        <daystoLastChance>0</daystoLastChance>
        <newReleaseWindow>0</newReleaseWindow>
        <maximumViewingLimit>2880</maximumViewingLimit>
    </rightsMetadata>
    <asset Verb="" type="feature" asset_name="God's Pocket
Feature">
        <metadata>
            <assetID>764237</assetID>
            <providerID>ODG</providerID>
            <HD>true</HD>
            <language_iso639>en</language_iso639>

```

```

<subtitleLanguage_iso639>pt</subtitleLanguage_iso639>
  <rating value="14" rating_system="DJCTQ" />
  <audio>Dolby Digital 5.1</audio>
</metadata>
<content>764237.mpd</content>
</asset>
<asset type="trailer" asset_name="God's Pocket
Trailer">
  <metadata>
    <assetID>764237</assetID>
    <providerID>ODG</providerID>
    <HD>true</HD>
    <language_iso639>en</language_iso639>

<subtitleLanguage_iso639>pt</subtitleLanguage_iso639>
  <rating value="14" rating_system="DJCTQ" />
  <audio>Stereo</audio>
</metadata>
<content>764237.mpd</content>
</asset>
<asset verb="" type="poster" asset_name="God's Pocket
Poster">
  <metadata>
    <assetID>764237</assetID>
    <providerID>ODG</providerID>
    <language_iso639>en</language_iso639>

<subtitleLanguage_iso639>pt</subtitleLanguage_iso639>
  <rating value="14" rating_system="DJCTQ" />
  </metadata>
  <content>ODG_764237_poster_large.jpg</content>
</asset>
<!-- DTH
<businessRule>1507</businessRule>
<userNibble2>6</userNibble2>
<audioLanguage>por</audioLanguage>
<subtitleLanguage>por</subtitleLanguage>
<soundType>Simple Stereo</soundType> -->
  </assetPackage>
</assetPackages>

```

Appendix B – Cablelabs Metadata XML Example

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE ADI SYSTEM "ADI.DTD">
<ADI>
  <Metadata>
    <AMS Asset_Class="package" Asset_ID="123456789"
    Asset_Name="Assetname" Creation_Date="2019-03-12" Description="Description"
    Product="" Provider="XPTO" Provider_ID="XPTO" Version_Major="1"
    Version_Minor="0" />
    <App_Data App="MOD" Name="Metadata_Spec_Version"
    Value="CableLabsVOD1.1" />
  </Metadata>
  <Asset>
    <Metadata>
      <AMS Asset_Class="title" Asset_ID="123456789"
      Asset_Name="Assetname_Title" Creation_Date="2019-03-12"
      Description="Description_Title" Product="" Provider="XPTO" Provider_ID="XPTO"
      Version_Major="1" Version_Minor="0" />
      <App_Data App="MOD" Name="Series_ID" Value="111" />
      <App_Data App="MOD" Name="Season_ID" Value="1" />
      <App_Data App="MOD" Name="Season_Number" Value="1" />
      <App_Data App="MOD" Name="Episode_Name" Value="Episode_Name" />
      <App_Data App="MOD" Name="Actors" Value="Actors1" />
      <App_Data App="MOD" Name="Actors" Value="Actors2" />
      <App_Data App="MOD" Name="Actors_Display" Value="Actors1, Actors2" />
      <App_Data App="MOD" Name="Run_Time" Value="00:41" />
      <App_Data App="MOD" Name="Rating" Value="14" />
      <App_Data App="MOD" Name="Parental_Rating_Descriptor"
      Value="Violência" />
      <App_Data App="MOD" Name="Genre" Value="MSEPGC_MV_Action" />
      <App_Data App="MOD" Name="Category" Value="Coleção Oi/Coleção Oi
      Séries/Title" />
      <App_Data App="MOD" Name="Licensing_Window_Start" Value="2019-01-
      01T00:00:00" />
      <App_Data App="MOD" Name="Licensing_Window_End" Value="2019-12-
      31T00:00:00" />
      <App_Data App="MOD" Name="Avaibility_Window_Start" Value="2019-01-
      01T00:00:00" />
      <App_Data App="MOD" Name="Avaibility_Window_End" Value="2019-12-
      31T00:00:00" />
      <App_Data App="MOD" Name="Title_Brief" Value="Title_Brief" />
      <App_Data App="MOD" Name="Title" Value="Title" />
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</ADI>
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    <App_Data App="MOD" Name="Distributor_Name" Value="Oi" />
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    <App_Data App="MOD" Name="Country_of_Origin" Value="USA" />
    <App_Data App="MOD" Name="Preview_Period" Value="0" />
    <App_Data App="MOD" Name="Contract_Name" Value="Contract_Name" />
    <App_Data App="MOD" Name="Type" Value="title" />
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  <Asset>
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Verb="" Version_Major="1" Version_Minor="0" />
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      <App_Data App="MOD" Name="Audio_Type" Value="Stereo" />
      <App_Data App="MOD" Name="Content_CheckSum"
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      <App_Data App="MOD" Name="Screen_Format" Value="Widescreen" />
      <App_Data App="MOD" Name="Languages" Value="en" />
      <App_Data App="MOD" Name="Content_FileSize" Value="2940202500"/>
      <App_Data App="MOD" Name="Resolution" Value="1080i" />
      <App_Data App="MOD" Name="Subtitle_Languages" Value="pt" />
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    <Content Value="123456789.mxf" />
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Provider_ID="XPTO" Verb="" Version_Major="1" Version_Minor="0" />
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/>
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      <App_Data App="MOD" Name="Content_CheckSum"
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      <App_Data App="MOD" Name="Type" Value="featured-tablet" />
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Verb="" Version_Major="1" Version_Minor="0" />
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/>
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<subtitleLanguage>por</subtitleLanguage>
<soundType>Simple Stereo</soundType> -->
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</ADI>
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