



Nagra Media Metadata Server

Version 1.5STD5

Delivery API Reference

Filename	METADATASRV_D_API_DeliveryAPIReference_1.5STD5_pub.pdf
Document Nr	METADATASRV-D-API
Date	2015-02-26
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Information domain	
Data Owner	Nagra Media UK Limited

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1 Delivery API reference

This document describes the API that client applications use to get content and product metadata from the Metadata Server.

It may be referenced as: NAGRA Media Metadata Server Delivery API Reference, Nagra Media UK Ltd, 2013 (METADATASRV-D-API)

1.1 References

No references.

2 The Metadata Server

The Metadata Server is intended as a lightweight, highly scalable, high performance component for serving both BTV and VOD metadata.

It is intended to replace SDP for this purpose.

Note

Release versions of MDS are designed to be used in conjunction with specific releases of CMS - see table below.

MDS Version	CMS Version
MDS 1.0	CMS 4.5
MDS 1.1	CMS 4.6

3 VOD delivery APIs

These APIs are used by client applications to obtain data about on-demand content and products. They return objects of multiple types, aggregated to make presenting the data easier.

3.1 /metadata/delivery/<provider>/vod/editorials

The purpose of this API is to deliver Asset metadata to clients. This metadata can include the editorial metadata, technical metadata, product and schedule (vod item) information of the Assets.

The asset data is aggregated by editorial.

To use this API, send a HTTP GET request to the URL:

Caution! **provider** is a mandatory part of the delivery service endpoint, narrowing down queries to a single service provider to allow for api clarity and security.

```
http://<host>:<port>/metadata/delivery/<provider>/vod/editorials
```

Example

```
http://172.16.1.52:12123/metadata/delivery/CMS4X/vod/editorials?filter={"locale":"en_GB","voditem.nodeRefs":"LYS000600515"}&sort=[[ "product.price",1],[ "editorial.title",1]]&fields=[]&offset=0&limit=10&pretty=true
```

Query Parameters

This API performs queries over Editorial-Technical-VodItem-Product (VOD) JSON object objects. The field names used in the **filter**, **sort** and **fields** arguments relate to these objects.

When returned to the client, however, these objects are aggregated so as to avoid duplicating data. Refer to the example below to see how this is done.

Name	Type	Description	Required
filter	JSON object	A key/value pairing list. Where key is a fieldname, and value is the value the field should be. <pre>filter={"voditem.node":"tv19", "locale":"en_gb","technical.type": "ipad"}</pre>	No

Name	Type	Description	Required
sort	list of lists (pairs)	A list of pairs, where a pair is a list containing a field name and a sort order. Where a sort order of 1 is Ascending, and a sort order of -1 is descending. <code>sort=[["product.price",1],["editorial.title",1]]</code>	No
fields	list of strings	A list of fields names to return in the response. <code>fields=["editorial.title","product.price","voditem.node","technical.type"]</code> The <code>id</code> field of each object is always returned, even if you do not specify it.	No
offset	integer	The number of records to skip. For pagination. <code>offset=0</code>	No
limit	integer	The number of records to return. For pagination. <code>limit=10</code> Danger! Please note that <code>limit=0</code> used to bring back unbounded results, but this behaviour has now been changed to return 0 results.	No
hints	boolean	True to create pre-sorted "hints" to assist performance. False is the client believes there is no benefit in pre-sorting the data.	No
hintLevel	integer	The number of records required before we bother using the hint cache to improve performance.	No
cache	boolean	True to allow caching on CDN, false to prevent CDN caching. This just sets or unsets HTTP headers.	No
pretty	boolean	True to return human readable formatted JSON. False to return compact and efficient JSON.	No

Example Query Parameters

```
filter":{"locale":"hi_IN"}
sort=[["editorial.id",1]]
fields=["editorial.Title"]
skip=0
limit=10
hints=true
hintLevel=20
cache=false
pretty=true
```

Success response

HTTP 200

```
{
  "editorials": [
    {
      "Title": "Hindi title in the fjdhjdfjdhfjh",
      "id": "MAIN_SCONT6194a_001_123456789012345678901234567890",
      "technicals": [
        {
          "id": "SCONT6194a_001_123456789012345678901234567890",
          "products": [
            {
              "id": "PROD0003_1234567890123456789012345678901234567890",
              "voditems": [
                {
                  "id": "VI0003_1234567890123456789012345678901234567890"
                },
                {
                  "id": "VI0003_1234567890123456789012345678901234567890"
                }
              ]
            }
          ]
        }
      ]
    }
  ]
},
  "total_records" : 30,
  "version" : "201301011500"
}
```

3.2 /metadata/delivery/<provider>/vod/images

Note | Since MDS 1.1

The purpose of this API is to deliver image metadata to clients. See the following page for object definition [Image JSON object](#) ^{p.50}

To use this API, send an HTTP GET request to the URL

Caution! | **provider** is a mandatory part of the delivery service endpoint, narrowing down queries to a single service provider to allow for api clarity and security.

```
http://<host>:<port>/metadata/delivery/<provider>/vod/images
```

Example

```
http://172.16.8.201:12123/metadata/delivery/CMS4X/vod/images?filter={"ImageType": "MOVIE"}&pretty=true
```

Query Parameters

Name	Type	Description	Required
filter	JSON object	A key/value pairing list. Where key is a fieldname, and value is the value the field should be. <code>filter={"ImageType": "MOVIE"}</code>	No
sort	list of lists (pairs)	A list of pairs, where a pair is a list containing a field name and a sort order. Where a sort order of 1 is Ascending, and a sort order of -1 is descending. <code>sort=[["title",1]]</code>	No
fields	list of strings	A list of fields names to return in the response. <code>fields=["title"]</code>	No
offset	integer	The number of records to skip. For pagination. <code>offset=0</code>	No

Name	Type	Description	Required
limit	integer	The number of records to return. For pagination. <code>limit=10</code> Danger!	No
cache	boolean	True to allow caching on CDN, false to prevent CDN caching. This just sets or unsets HTTP headers.	No
pretty	boolean	True to return human readable formatted JSON. False to return compact and efficient JSON.	No

Please note that limit=0 used to bring back unbounded results, but this behaviour has now been changed to return 0 results.

Success Response

HTTP 200

```
{
  "images": [
    {
      "_id": "CMS4X_7_1_1_MAINIMAGE",
      "deviceType": [],
      "id": "CMS4X_7_1_1_MAINIMAGE",
      "illustratedRef": "CMS4X_7_1_1",
      "provider": "CMS4X",
      "technicals": [
        {
          "deviceType": [],
          "id": "CMS4X_7_1_1_SDIMAGE",
          "mainImageRef": "CMS4X_7_1_1_MAINIMAGE",
          "profileRef": "LYS000000135",
          "provider": "CMS4X",
          "title": "CMS4X_7_1_1_SD_IMAGE_TITLE",
          "voditems": [
            {
              "DisplayPriority": {
                "LYS0000005818": 0
              },
              "contentRef": "CMS4X_7_1_1_SDIMAGE",
              "deviceType": [],
              "id": "CMS4X_7_1_1_SDIMAGEVOD",
            }
          ]
        }
      ]
    }
  ]
}
```

```

        "nodeRefs": [
            "LYS000005818"
        ],
        "period": {
            "duration": "428544000",
            "end": 1702944000.0,
            "start": 1274400000.0
        },
        "provider": "CMS4X",
        "title": "CMS4X_7_1_1_SDIMAGEVOD"
    }
]
},
{
    "deviceType": [],
    "id": "CMS4X_7_1_1_HDIMAGE",
    "mainImageRef": "CMS4X_7_1_1_MAINIMAGE",
    "profileRef": "LYS000000134",
    "provider": "CMS4X",
    "title": "CMS4X_7_1_1_HD_IMAGE_TITLE",
    "voditems": [
        {
            "DisplayPriority": {
                "LYS000005818": 0
            },
            "contentRef": "CMS4X_7_1_1_HDIMAGE",
            "deviceType": [],
            "id": "CMS4X_7_1_1_HDIMAGEVOD",
            "nodeRefs": [
                "LYS000005818"
            ],
            "period": {
                "duration": "428544000",
                "end": 1702944000.0,
                "start": 1274400000.0
            },
            "provider": "CMS4X",
            "title": "CMS4X_7_1_1_HDIMAGEVOD"
        }
    ]
}
],
"total_records": 1,
"version": "20130828095924"
}

```

3.3 /metadata/delivery/<provider>/vod/nodes

The purpose of this API is to deliver catalogue node metadata to clients. This metadata will only include node metadata. It will not contain asset or series contents of the nodes, and will not contain the root catalogue. To retrieve the contents of the nodes, refer to [/metadata/delivery/<provider>/vod/editorials](#) ^{p.8}

As only node metadata is provided, there is no aggregation.

To use this API, send an HTTP GET request to the URL

Caution! **provider** is a mandatory part of the delivery service endpoint, narrowing down queries to a single service provider to allow for api clarity and security.

```
http://<host>:<port>/metadata/delivery/<provider>/vod/nodes
```

Example

```
http://172.16.8.201:12123/metadata/delivery/CMS4X/vod/nodes?filter={"regions":
"Spain"}&sort=[["Title",1]] &fields=["Title"]&offset=0&limit=10&hints=true&hint
Level=20&cache=false&pretty=true
```

Query Parameters

This API performs queries over Node (VOD) JSON object objects. The field names used in the **filter** , **sortOrder** and **fieldList** arguments relate to these objects.

Name	Type	Description	Required
filter	JSON object	A key/value pairing list. Where key is a fieldname, and value is the value the field should be. filter={"regions":"Spain"}	No
sort	list of lists (pairs)	A list of pairs, where a pair is a list containing a field name and a sort order. Where a sort order of 1 is Ascending, and a sort order of -1 is descending. sort=[["Title",1]]	No
fields	list of strings	A list of fields names to return in the response. fields=["Title", "regions", "parent", "ancestors", "children", "descendants"]	No

Name	Type	Description	Required
offset	integer	The number of records to skip. For pagination. <code>offset=0</code>	No
limit	integer	The number of records to return. For pagination. <code>limit=10</code> Danger! Please note that <code>limit=0</code> used to bring back unbounded results, but this behaviour has now been changed to return 0 results.	No
hints	boolean	True to create pre-sorted "hints" to assist performance. False is the client believes there is no benefit in pre-sorting the data.	No
cache	boolean	True to allow caching on CDN, false to prevent CDN caching. This just sets or unsets HTTP headers.	No
pretty	boolean	True to return human readable formatted JSON. False to return compact and efficient JSON.	No

Example 1 : Query Root Nodes

Description

Here is a simple query to obtain a number of root nodes (top of the tree).

Request

```
filter={ "isRoot":true }
sort=[[ "title", 1 ]]
fields=[ "id", "title", "children" ]
limit=3
```

Response

HTTP 200

```
{
  "nodes": [
    {
```

```
    "children": [
      "LYS008676354",
      "LYS008677173",
      "LYS008677597"
    ],
    "id": "LYS008676433",
    "title": "CU Node"
  },
  {
    "children": [
      "LYS008849979",
      "LYS008849980",
      "LYS008849981"
    ],
    "id": "LYS008849978",
    "title": "CatchUp_Root"
  },
  {
    "children": [
      "LYS007278268"
    ],
    "id": "LYS002357252",
    "title": "FGO_TEST"
  }
],
"total_records" : 3,
"version" : "201301011500"
}
```

Example 2 : Dig Down into Node 'CatchUp_Root'

Description

We want to look at the contents of root level catalogue 'CatchUp_Root'.

Request

```
filter = { "parent": "LYS008849978" }
sort = [ ["title", 1] ]
fields = [
  "id",
  "title",
  "children",
  "parent"
]
```

Response

HTTP 200


```
{
  "nodes": [
    {
      "ancestors": [
        "LYS008849978"
      ],
      "parent": "LYS008849978",
      "title": "Profile1",
      "children": [],
      "id": "LYS008849979"
    },
    {
      "ancestors": [
        "LYS008849978"
      ],
      "parent": "LYS008849978",
      "title": "Profile2",
      "children": [],
      "id": "LYS008849980"
    },
    {
      "ancestors": [
        "LYS008849978"
      ],
      "parent": "LYS008849978",
      "title": "Profile3",
      "children": [],
      "id": "LYS008849981"
    }
  ],
  "total_records" : 3,
  "version" : "201301011500"
}
```

Example 3 : List Any Node Underneath 'CU Node'

Description

We want to get a full catalogue tree underneath the root node 'CU Node' (define it as an ancestor).

Request

```
filter = {
  "ancestors": {
    "$in": [ "LYS008676433" ]
  }
}
sort = [ ["title", 1] ]
fields = [
  "id",
```

```
"title",
"children",
"parent"
]
```

Response

```
{
  "nodes": [
    {
      "children": [],
      "id": "LYS008677173",
      "parent": "LYS008676433",
      "title": "CAS1"
    },
    {
      "children": [
        "LYS008677718"
      ],
      "id": "LYS008677597",
      "parent": "LYS008676433",
      "title": "PR79467"
    },
    {
      "children": [],
      "id": "LYS008676354",
      "parent": "LYS008676433",
      "title": "main1"
    },
    {
      "children": [],
      "id": "LYS008677718",
      "parent": "LYS008677597",
      "title": "main1"
    }
  ],
  "total_records" : 4,
  "version" : "201301011500"
}
```

Example 2 : Dig Down into Node 'CatchUp_Root'

Description

We want to look at the contents of root level catalogue 'CatchUp_Root'.

Request

```
filter = { "parent": "LYS008849978" }
```

```
sort = [ ["title", 1] ]
fields = [
    "id",
    "title",
    "children",
    "parent"
]
```

Response

HTTP 200

```
{
  "nodes": [
    {
      "ancestors": [
        "LYS008849978"
      ],
      "parent": "LYS008849978",
      "title": "Profile1",
      "children": [],
      "id": "LYS008849979"
    },
    {
      "ancestors": [
        "LYS008849978"
      ],
      "parent": "LYS008849978",
      "title": "Profile2",
      "children": [],
      "id": "LYS008849980"
    },
    {
      "ancestors": [
        "LYS008849978"
      ],
      "parent": "LYS008849978",
      "title": "Profile3",
      "children": [],
      "id": "LYS008849981"
    }
  ],
  "total_records" : 3,
  "version" : "201301011500"
}
```

Example 3 : List Any Node Underneath 'CU Node'

Description

We want to get a full catalogue tree underneath the root node 'CU Node' (define it as an ancestor).

Request

```
filter = {
  "ancestors": {
    "$in": [ "LYS008676433" ]
  }
}
sort = [ ["title", 1] ]
fields = [
  "id",
  "title",
  "children",
  "parent"
]
```

Response

```
{
  "nodes": [
    {
      "children": [],
      "id": "LYS008677173",
      "parent": "LYS008676433",
      "title": "CAS1"
    },
    {
      "children": [
        "LYS008677718"
      ],
      "id": "LYS008677597",
      "parent": "LYS008676433",
      "title": "PR79467"
    },
    {
      "children": [],
      "id": "LYS008676354",
      "parent": "LYS008676433",
      "title": "main1"
    },
    {
      "children": [],
      "id": "LYS008677718",
      "parent": "LYS008677597",
      "title": "main1"
    }
  ],
  "total_records" : 4,
}
```

```
"version" : "201301011500"
}
```

3.4 /metadata/delivery/<provider>/vod/products

The purpose of this API is to deliver VOD product metadata to clients. This metadata only includes VOD product metadata. To retrieve the contents of the product you will need to use either the editorials API [/metadata/delivery/<provider>/vod/editorials](#)^{p.8} and filter by product.

To use this API, send an HTTP GET request to the URL

Caution! **provider** is a mandatory part of the delivery service endpoint, narrowing down queries to a single service provider to allow for api clarity and security.

```
http://<host>:<port>/metadata/delivery/<provider>/vod/products
```

Example

```
http://172.16.8.201:80/metadata/delivery/CMS4X/vod/products?filter={"id":"JFKDLFFJJS98",
"locale":"en_gb"}&sort=[[ "product.price",1]] &fields=["product.title","product.
price"]&offset=0&limit=10&cache=false&pretty=true
```

Query Parameters

This API performs queries over [Product \(VOD\) object](#)^{p.42} objects. The field names used in the **filter**, **sortOrder** and **fieldList** arguments relate to these objects.

Caution! Only VOD Products will be returned by this API.

Name	Type	Description	Required
filter	JSON object	A key/value pairing list. Where key is a fieldname, and value is the value the field should be. filter ={ "id": "JFKDLFFJJS98", "locale": "en_gb" }	No

Name	Type	Description	Required
sort	list of lists (pairs)	A list of pairs, where a pair is a list containing a field name and a sort order. Where a sort order of 1 is Ascending, and a sort order of -1 is descending. <code>sort=[["price.value",1]]</code>	No
fields	list of strings	A list of fields names to return in the response. <code>fields=["title", "price.value", "price.currency"]</code>	No
offset	integer	The number of records to skip. For pagination. <code>offset=0</code>	No
limit	integer	The number of records to return. For pagination. <code>limit=10</code> Danger! Please note that <code>limit=0</code> used to bring back unbounded results, but this behaviour has now been changed to return 0 results.	No
cache	boolean	True to allow caching on CDN, false to prevent CDN caching. This just sets or unsets HTTP headers.	No
pretty	boolean	True to return human readable formatted JSON. False to return compact and efficient JSON.	No

Example Query Parameters

Example JSON request

```
"filter":{"id":"JFKDLFFJJS98","locale":"en_gb"}
"sort":[["price.value",1]]
"fields":["title", "price.value", "price.currency"]
"skip":0
"limit":10
"hints":true
"hintLevel":20
"cache":false
```

```
"pretty":true
```

Success response

HTTP 200

```
{
  "products": [
    {
      "title": "The Amazing Spiderman 3D HD",
      "price": {
        "value": 3.99
        "currency": "GBP"
      }
      "id": "JFKDLFFJJS98",
    }
  ],
  "total_records" : 30,
  "version" : 201301011500
}
```

3.5 /metadata/delivery/<provider>/vod/promotions

The purpose of this API is to deliver promotion/trailer metadata to clients. See the following page for object definition [Promotion JSON object](#).

To use this API, send an HTTP GET request to the URL

Caution!

provider is a mandatory part of the delivery service endpoint, narrowing down queries to a single service provider to allow for api clarity and security.

```
http://<host>:<port>/metadata/delivery/<provider>/vod/promotions
```

Example

```
http://172.16.8.201:12123/metadata/delivery/CMS4X/vod/promotions?filter={"Definition": "HD"}&pretty=true
```

Query Parameters

Name	Type	Description	Required
filter	JSON object	A key/value pairing list. Where key is a fieldname, and value is the value the field should be. <code>filter={"Definition": "HD"}</code>	No
sort	list of lists (pairs)	A list of pairs, where a pair is a list containing a field name and a sort order. Where a sort order of 1 is Ascending, and a sort order of -1 is descending. <code>sort=[["title",1]]</code>	No
fields	list of strings	A list of fields names to return in the response. <code>fields=["title"]</code>	No
offset	integer	The number of records to skip. For pagination. <code>offset=0</code>	No
limit	integer	The number of records to return. For pagination. <code>limit=10</code> Danger! Please note that <code>limit=0</code> used to bring back unbounded results, but this behaviour has now been changed to return 0 results.	No
cache	boolean	True to allow caching on CDN, false to prevent CDN caching. This just sets or unsets HTTP headers.	No
pretty	boolean	True to return human readable formatted JSON. False to return compact and efficient JSON.	No

Success Response

HTTP 200

```
{
  "promotions": [
    {
```



```

    "Definition": "HD",
    "deviceType": [],
    "duration": 120,
    "id": "VDD13HDPROM",
    "media": {
      "AV_EncryptedTS": {
        "drmId": "526",
        "drmInstanceName": "PRM_Nagra",
        "fileName": "penguins_mini_SD_13_pro.aes_128_cbc.raw.0.ts",
        "format": "AV_EncryptedTS",
        "frameDuration": 0,
        "id": "LYS000009827"
      }
    },
    "profileRef": "LYS000000043",
    "provider": "CMS4X",
    "title": "VDD13_HD_PRO_TITLE"
  },
  {
    "Definition": "SD",
    "deviceType": [],
    "duration": 120,
    "id": "VDD13SDPROM",
    "media": {
      "AV_PlaylistName": {
        "fileName": "index.m3u8",
        "format": "AV_PlaylistName",
        "frameDuration": 0,
        "id": "LYS000009758"
      }
    },
    "profileRef": "LYS000000045",
    "provider": "CMS4X",
    "title": "VDD13_SD_PRO_TITLE"
  }
],
"total_records": 2,
"version": "20130702154424"
}

```

3.6 /metadata/delivery/<provider>/vod/series

The purpose of this API is to deliver Series/Season metadata to clients.

To use this API, send an HTTP GET request to the URL

Caution!

provider is a mandatory part of the delivery service endpoint, narrowing down queries to a single service provider to allow for api clarity and security.

```
http://<host>:<port>/metadata/delivery/<provider>/vod/series
```

Example

```
http://172.16.8.201:12123/metadata/delivery/CMS4X/vod/series?filter={"channel.id":"LJDL S ADJ ASD21","locale":"en_gb"}&sort=[["Title",1]] &fields=["Title","Synopsis"]&offset=0&limit=10&cache=false&pretty=true
```

Query Parameters

Name	Type	Description	Required
filter	JSON object	A key/value pairing list. Where key is a fieldname, and value is the value the field should be. <code>filter={"channel.id":"LJDL S ADJ ASD21","locale":"en_gb"}</code>	No
sort	list of lists (pairs)	A list of pairs, where a pair is a list containing a field name and a sort order. Where a sort order of 1 is Ascending, and a sort order of -1 is descending. <code>sort=[["Title",1]]</code>	No
fields	list of strings	A list of fields names to return in the response. <code>fields=["Title","Synopsis"]</code>	No
offset	integer	The number of records to skip. For pagination. <code>offset=0</code>	No
limit	integer	The number of records to return. For pagination. <code>limit=10</code>	No

Danger!

Please note that `limit=0` used to bring back unbounded results, but this

Name	Type	Description	Required
		behaviour has now been changed to return 0 results.	
cache	boolean	True to allow caching on CDN, false to prevent CDN caching. This just sets or unsets HTTP headers.	No
pretty	boolean	True to return human readable formatted JSON. False to return compact and efficient JSON.	No

Success Response

HTTP 200

```
{
  "series": [
    {
      "PrivateMetadata": "private",
      "Rating": 0,
      "Title": "Title en_GB",
      "deviceType": [],
      "id": "CDNPS624201",
      "locale": "en_GB",
      "nls": {
        "Title": "4d374d3d2f042f4106423329010f018f7e8f8f00"
      },
      "provider": "CMS4X",
      "title": "CDN_Preloading_6242"
    },
    {
      "PrivateMetadata": "private",
      "Rating": 1,
      "Title": "series2 en_GB",
      "deviceType": [],
      "id": "CDNPS624202",
      "locale": "en_GB",
      "nls": {
        "Title": "4b2f49372f4b16042f41064233290111017b8f8f00"
      },
      "provider": "CMS4X",
      "title": "BDN_Preloading_6243"
    }
  ],
  "total_records": 2,
}
```

```
"version": "20130603114314"
}
```

3.7 Editorial-Technical-VodItem-Product (VOD) JSON object

These data transfer objects are used by the VOD delivery APIs to provide clients with all the information they will need to display a single scheduled item, including technical and editorial metadata about the content, details of product offers and scheduling information.

Name	Type	Description
_id	string	Internal identifier for the object.
e	string	Internal identifier for the associated editorial content.
editorial	Editorial JSON object ^{p.31}	The associated editorial content.
p	string	Internal identifier for the associated Product.
product	Product (VOD) object ^{p.42}	The associated Product.
provider	string	Identifier for the service provider.
t	string	Internal identifier for the associated technical content.
technical	Technical JSON object ^{p.35}	The associated technical content.
v	string	Internal identifier for the associated VodItem.
validFrom	number: a JS epoch time	<p>Danger! Removed since MDS 1.1</p> <p>The date and time this object becomes valid for displaying to end users.</p>
validTo	number: a JS epoch time	<p>Danger! Removed since MDS 1.1</p>

Name	Type	Description
		The date and time this object stops being valid for displaying to end users.
isPreview Screening	boolean	A true/false boolean, that indicates if this object is part of a test trail (and therefore should be available to be seen by the general public). Danger! Please note that this is not related to trailers or promotions, but simply test data
isPurchasable	boolean	A true/false boolean, that indicates if this object is able to be bought. i.e. the start and end product purchase dates allow you to buy it.
isValid	boolean	A true/false boolean, that indicates if this object is still valid. i.e. the start and end product validity dates allow you to use the product.
isVisible	boolean	A true/false boolean, that indicates if this object is visible in the catalogue. i.e. the voditem period start and end dates allow you to see the object in a catalogue.
voditem	VodItem JSON object ^{p.47}	The associated VodItem.

Example

```
{
  "_id" : ObjectId("514c2e5cbcd9b05c34015d1a"),
  "voditem" : {
    "xml" : "VodItem",
    "node" : "",
    "title" : "CDN_Preloading_Version_Content_VODItem",
    "nodeRefs" : "LYS000600515",
    "contentRef" : "VCONT6194a_001_123456789012345678901234567890",
    "period" : {
      "duration" : "315792000",
      "start" : 1322697600.0,
      "end" : 1638489600.0
    },
  },
  "providerId" : "CMS4X",
  "_id" : "VI0001_1234567890123456789012345678901234567890",
}
```

```

    "id" : "VI0001_1234567890123456789012345678901234567890",
    "metadata" : { }
  },
  "product" : {
    "startPurchase" : 1322697600.0,
    "xml" : "Product",
    "endValidity" : 1670025600.0,
    "startValidity" : 1322697600.0,
    "rentalDuration" : "0",
    "price" : {
      "startPurchase" : 1322697600.0,
      "billingInterval" : "1",
      "endPurchase" : 1667347200.0,
      "value" : 10.0,
      "currency" : "EUR",
      "subscriptionDurationRatio" : "1",
      "billingTimeUnit" : "month"
    },
    "title" : "_Product_Version_Preloaded",
    "endPurchase" : 1667347200.0,
    "impulsive" : "false",
    "regions" : ["Spain"],
    "locale" : "hi_IN",
    "providerId" : "CMS4X",
    "TitleForProduct" : "this is title for product",
    "_id" : "PROD0001_1234567890123456789012345678901234567890|hi_IN",
    "type" : "subscription",
    "id" : "PROD0001_1234567890123456789012345678901234567890",
    "payPerTime" : "true"
  },
  "e" : "MCONT6194a_001_123456789012345678901234567890|hi_IN",
  "technical" : {
    "xml" : "technical",
    "Rating" : "0",
    "promoRefs" : "VPROM6194a_001_V1_123456789012345678901234567890",
    "companyId" : "CMS4X",
    "locale" : "hi_IN",
    "media" : {
      "AV_ClearTS" : {
        "frameDuration" : "0",
        "fileName" : "CPS_Preloaded.ts",
        "fileSize" : "1",
        "id" : "PRODMED6194a_002_123456789012345678901234567890",
        "format" : "AV_ClearTS"
      }
    }
  },
  "title" : "6194a_Version_Content_001",
  "mainContentRef" : "MCONT6194a_001_123456789012345678901234567890",
  "providerId" : "CMS4X",
  "Title" : "Hindi title in the fjdhjdfjdhfjh",
  "duration" : "0",

```

```

    "_id" : "VCONT6194a_001_123456789012345678901234567890|hi_IN",
    "type" : "STB_Type1",
    "id" : "VCONT6194a_001_123456789012345678901234567890"
  },
  "validTo" : 1638489600.0,
  "p" : "PROD0001_1234567890123456789012345678901234567890|hi_IN",
  "providerId" : "CMS4X",
  "t" : "VCONT6194a_001_123456789012345678901234567890|hi_IN",
  "editorial" : {
    "xml" : "editorial",
    "Rating" : "0",
    "companyId" : "CMS4X",
    "locale" : "hi_IN",
    "media" : { },
    "title" : "6194a_Main_Content",
    "providerId" : "CMS4X",
    "Title" : "Hindi title in the fjdhjdfjdhfjh",
    "duration" : "0",
    "_id" : "MCONT6194a_001_123456789012345678901234567890|hi_IN",
    "id" : "MCONT6194a_001_123456789012345678901234567890"
  },
  "v" : "VI0001_1234567890123456789012345678901234567890",
  "locale" : "hi_IN",
  "validFrom" : 1322697600.0
}

```

3.8 Editorial JSON object

This object represents an editorial asset, or "main content" in CMS terms.

Editorial assets contain the content item's editorial metadata. They do not include any information about encoding, stream location, format or definition. Different encodings of the same editorial asset are represented as technical asset.

Editorial and technical assets have the same fields. The only differences are that editorial assets

- ▶ never have a `mainContentRef`
- ▶ never have a `media` field (sub-object)
- ▶ have "editorial" in the `xml` field, not "technical"
- ▶ do not normally have values for certain technical fields, such as `Definition`, `profileRef`, and so on.

Name	Type	Description	Localized	Always available
Images	List of Image JSON object ^{p.50}	Note Since MDS 1.1	No	No

Name	Type	Description	Localized	Always available
		List of images related to the editorial item		

Tip

For all other fields see [Technical JSON object](#) ^{p.35} for full information.

Example

```
{
  "_id" : "MCONT6211a_001_12345678901234567890123456789012345|hi_IN",
  "xml" : "editorial",
  "Rating" : "0",
  "companyId" : "CMS4X",
  "locale" : "hi_IN",
  "title" : "6211a_Main_Content",
  "duration" : "0",
  "providerId" : "CMS4X",
  "Title" : "Hindi title in the fjdhjdfjdhfjh",
  "id" : "MCONT6211a_001_12345678901234567890123456789012345"
}
```

3.9 Node (VOD) JSON object

This object represents a catalogue node.

Name	Type	Description	Localized	Always available
_id	string	Internal identifier for the object.	No	Yes
isRoot	boolean	True if the node is a top level / root node.	No	Yes
parent	string	An id reference to the nodes parent.	No	Yes
children	list of string	A list of ids of the children of the node.	No	Yes
ancestors	list of string	A list of ids of any node above the current one in the tree.	No	Yes

Name	Type	Description	Localized	Always available
descendents	list of string	A list of ids of any node below the current one in the tree.	No	Yes
Barker ChannelRef	string	The URI to the barker channel promoting this node.	No	No
companyId	string	The ID of the broadcaster company which is offering the catalogue node.	No	No
id	string	The CMS's identifier for the object.	No	Yes
locale	string	The locale used for localizable fields of the object.	No	Yes
Private Metadata	string	Used to pass data directly from the operator to the end user device without any CMS/SDP processing. One possible use is to pass a list of key-word / value pairs separated by semi-colons	No	No
PromoImages	string	A list of URLs of images promoting the channel. The Metadata Server does not validate the format of this field's value, and does not attempt to access the URLs to verify the existence of the image files.	No	No
provider	string	The identifier of the metadata provider, from the <code>id</code> of the <code>CMSvodData</code> element of the export.	No	Yes
Rating.code	string	Parental rating code (from CMS)	No	Yes
Rating.precedence	integer	Quantitative rating value	No	Yes
Rating.name	string	Localized name for the rating, e.g. "Adult", "Adulto"	Yes	Yes

Name	Type	Description	Localized	Always available
regions	list of string	The region identifiers targeted by the catalogue node.	No	No
Title	string	The name of the catalogue node.	Yes	Yes
title	string	The name of the catalogue node.	No	Yes
		<p>Danger! This field is not localized. Multi-language clients should use the Title field instead</p>		
xml	string: always "Node"	The type of object.	No	Yes
nls.Title	string	Native language support for the title field to allow proper sorting on these fields, rather than just utf-8 ordering.	No	No
nodeOrder	integer	<p>Note Since MDS 1.1STD4</p> <p>Explicit ordering of nodes in a parent node / group</p>	No	No

Example

```
{
  "_id" : "LYS000000078|fr_FR",
  "xml" : "Node",
  "Rating" : "2",
  "PromoImages" : "Node 201-1000-Promo",
  "title" : "Node 201-1000",
  "locale" : "fr_FR",
  "BarkerChannelRef" : "Node 201-1000-Barker",
  "regions" : ["Spain"],
  "providerId" : "CMS4X",
  "companyId" : "CMS4X",
  "Title" : "Node 201-1000-UK",
  "id" : "LYS000000078"
```

}

3.10 Technical JSON object

This object represents a technical asset, or "content version" in CMS terms. Technical assets representing different encodings of the same content item share a link to the same editorial asset: see [Editorial JSON object](#)

Technical assets contain all technical information about a content item, including encoding, stream location, format or definition. They may also contain editorial metadata: if an editorial metadata field is present, clients should present this instead of the corresponding field of the editorial asset, if possible.

Name	Type	Description	Localized	Always available
<code>_id</code>	string	Internal identifier for the object.	No	Yes
<code>Actors</code>	string array	A an array of strings of actor names. [Tom Cruise, Nicole Kidman]	No	No
<code>Aspect</code>	string	The picture aspect ratio (Free text) 16:9 Widescreen	No	No
<code>Audio</code>	string array	A string array of "locale-type" pattern representing the audio streams available for this content. ▶ locale: 3-letters ISO language code ▶ type: VisualImpaired or Standard [Eng-Standard, Eng-Visual Impaired, Fra-Standard]	No	No
<code>AudioMode</code>	string	The audio mode available (Free text). Mono SRS	No	No

Name	Type	Description	Localized	Always available
		<p>THX 5.1 Nicam Stereo Dual Mono</p>		
BestSales Index	integer	<p>If -1 or not present, this asset is not in any "Top n" index.</p> <p>If 1 or more, the position of this asset in the "Top n" index.</p>	No	No
Categories	string	A string of semi-colon separated operator-defined category or genre names relevant to this content.	No	No
companyId	string	Provider related identifier.	No	No
ContentType	string	Free text	No	No
Copy Protections	string	<p>A string of semi-colon separated usage rules for controlling certain hardware outputs for preventing unauthorized content copying</p> <p>CGMS-A HDCP</p> <p>If 0 or not present, there is no restriction.</p>	No	No
Copyright	string	A copyright message.	Yes	No
Countries	string	A string of semi-colon separated ISO 2-letter codes representing countries relevant to this content.	No	No
Definition	string: "HD", "SD" or "3D"	The video definition	No	No
Description	string	The description of the content.	Yes	No

Name	Type	Description	Localized	Always available
Directors	string	A string of semi-colon separated directors.	No	No
duration	string	The approximate duration of the item, in seconds.	No	Yes
Episode	string	Localized text representation of the index of the episode in the series. This field should be used to display the episode number.	Yes	No
		Season 3, Episode 2		
episode Number	integer	The index of the episode in the series. This field is used for sorting episodes of a series.	No	No
id	string	The CMS' identifier for the object.	No	Yes
Is Recordable	boolean	May end users record this content?	No	No
Language	string	The original language of the content (3-letter ISO language code)	No	No
locale	string	The locale used for localizable fields of the object.	No	Yes
mainContent Ref	string	The CMS id of the associated editorial content.	No	Yes
media	JSON object	Details of the media stream providing the asset.	No	Yes
media. {format}.comment	string	Operational comments of the media.	No	No
media. {format}.drm Id	string	The content ID assigned by the DRM components. This ID is used to reference technically the content.	No	No

Name	Type	Description	Localized	Always available
		This DRM id is valid in the context of the DRM instance name.		
media. {format}.drm Instance Name	string	Name of the DRM instance assigned to the content.	No	No
media. {format}.file Name	string	Name of the file on the video server.	No	Yes
media. {format}.file Size	integer	The file size in bytes.	No	No
media. {format}.format	string	The format of the media used to indentify its type/format.	No	No
		<p>Note</p> <p>The CMS supports these values:</p> <ul style="list-style-type: none"> AV_ClearTS AV_EncryptedTS AV_PlaylistName Data_PMT AV_Harmonic OSPlaylistName 		
media. {format}.frame Duration	integer	The duration of the Media in frames.	No	No
media. {format}.id	string	The CMS' identifier for the media stream.	No	No
Private Metadata	string	<p>Generic field used to pass directly data from the operator to the end user device without any processing.</p> <p>One possible use it to pass a list of key-word / value pairs separated by semi-colons.</p>	No	No
Producers	string	A string of semi-colon separated producers.	No	No

Name	Type	Description	Localized	Always available
profileRef	string	The CMS id of the encoding profile which applies to this asset.	No	No
PromoImages	string	A string of semi-colon separated URLs of promoting pictures. URL-safe chars only.	No	No
promoRefs	string	The CMS ids of any assets which are trailers for this asset.	No	No
ProgramId	string	Allow to have a link between VOD content and schedule	No	No
ProgrammeStartDate	string: a date and time in ISO 8601 format	If the asset represents a catch-up item, the start date and time of the corresponding event.	No	No
ProgrammeEndDate	string: a date and time in ISO 8601 format	If the asset represents a catch-up item, the end date and time of the corresponding event.	No	No
providerId	string	The identifier of the metadata provider, from the id of the cmsvodData element of the export.	No	Yes
Rating.code	string	Parental rating code (from CMS)	No	Yes
Rating.precedence	integer	Quantitative rating value	No	Yes
Rating.name	string	Localized name for the rating, e.g. "Adult", "Adulto"	Yes	Yes
Scoring	integer	Score of the asset.	No	No
seriesRef	string	The CMS id of the series of which this is an episode.	No	No

Name	Type	Description	Localized	Always available
ServiceLongName	string	If the asset represents a catch-up item, the long name of the Service (channel) the event was broadcast on.	No	No
ShortTitle	string	The short name of the content	Yes	No
Studio	string	The content owner.	No	No
Subtitles	string array	<p>An array of "locale-type" pattern representing the subtitle streams available for this content.</p> <ul style="list-style-type: none"> ▶ locale: 3-letters ISO language code ▶ type: HearingImpaired or Standard <p>[Eng-Standard, Eng-Hearing Impaired, Fra-Standard]</p>	No	
Synopsis	string	A longer description of the asset.	Yes	No
title	string	<p>The name of the asset.</p> <p>Danger! This field is not localized. Multi-language clients should use the Title field instead.</p>	No	Yes
Title	string	<p>The name of the asset.</p> <p>Note The CMS mandates that this field will be populated for at least one locale-form of the asset.</p>	Yes	No

Name	Type	Description	Localized	Always available
Total Downloads	integer	Total number of downloads of the content/episode	No	No
Viewing Number	integer	How many times a user can watch the content sold once purchased. If 0 or not present, there is no limitation.	No	No
xml	string: always "technical"	The type of the object.	No	Yes
Year	integer	The year of production of the content.	No	No

Example

```
{
  "_id" : "LYS005844645|hi_IN",
  "xml" : "technical",
  "Rating" : "15",
  "companyId" : "CMS4X",
  "locale" : "hi_IN",
  "media" : { },
  "title" : "guiguiproddelamorte",
  "mainContentRef" : "MAIN_LYS005844645",
  "duration" : "0",
  "providerId" : "CMS4X",
  "Title" : "Hindi title in the fjdhjdfjdhfjh",
  "type" : "",
  "id" : "LYS005844645"
}
```

None <https://atlassian.hq.k.grp/confluence/pages/viewpage.action?pagelId=28870919>

3.11 Profile (VOD) object

These objects represent a set of features which apply to a technical content item.

Fields

Name	Type	Description	Localized	Always available
<code>_id</code>	string	Internal identifier for the object.	No	Yes
<code>id</code>	string	The CMS's identifier for the object.	No	Yes
<code>features</code>	string: a semicolon-separated list of feature names	The features applicable to the profile.	No	No
<code>provider</code>	string	The identifier of the metadata provider, from the <code>id</code> of the <code>CMSVodData</code> element of the export.	No	Yes
<code>xml</code>	string: always "Profile"	The type of object	No	Yes

Example

```
{
  "_id" : "LYS006892144",
  "xml" : "Profile",
  "features" : "HD;DVB_TS;Encrypted",
  "providerId" : "CMS4X",
  "id" : "LYS006892144",
}
```

3.12 Product (VOD) object

These objects represent products which sell on-demand TV content.

Fields

Name	Type	Description	Localized	Always available
_id	string	Internal identifier for the object.	No	Yes
businessProductType	string	A numeric value provided by the CAS to classify the type of product.	No	No
casInstanceName	string	The name that uniquely identifies the CAS server managing access to this channel or event.	No	No
casId	string	The identifier of this product within the CAS. This is the technical ID for all conditional access related operations.	No	No
		<p>Note</p> <p>For the Nagra CAS this ID is a numeric value with at most 12 digits.</p>		
casMopId	string	The MOP ID assigned by the Nagra CAS to this product, if applicable. The presence of this value depends upon the CAS features activated for the customer project	No	No
endPurchase	string: a date and time in ISO 8601 format	The end date and time of the period when the end user may purchase this product.	No	No
endValidity	string: a date and time in ISO 8601 format	The end date and time of the period when this product is valid. Access to the content/event sold by this product is not allowed after this time.	No	No
id	string	The CMS's identifier for the object.	No	Yes
impulsive	boolean	Can the product can be acquired by the end-user "impulsively", that is, without requiring a right to be delivered explicitly from the head-end?	No	No

Name	Type	Description	Localized	Always available
		<p>Note</p> <p>CMS 4 always sets this field to <code>true</code>.</p>		
isSOCU	boolean	<p>Flag used to determine if the broadcast product can be Start Over or CatchUp.</p> <p>A default value is configured in the mapping tables (METADATA.DEFAULTS.BtvPpv and METADATA.DEFAULTS.BtvSubscription). The default value is false</p>	No	No
ordering	boolean	<p>Can the product can be acquired by the end-user in "ordering" mode, i.e. via a right delivered from the head-end?</p> <p>Note</p> <p>CMS 4 always sets this field to <code>false</code>.</p>	No	No
payMode	string: one of "payable Locally", "voucher" or "other"	<p>Indicates how the product can be paid for when acquired in "ordering" mode.</p> <p>This field should not be present if <code>ordering</code> is <code>false</code>.</p>	No	No
payPerTime	boolean	Is this a pay-per-time product?	No	No
price	subobject	<p>Note</p> <p>MDS only currently supports one price in one currency per product</p> <p>The prices this product can be purchased for.</p>	No	No
price.currency	string	The currency the price is denominated in.	No	Yes

Name	Type	Description	Localized	Always available
price.start Purchase	string: a date and time in ISO 8601 format	The start date and time of the period when the end user may purchase the product at this price.	No	No
price.end Purchase	string: a date and time in ISO 8601 format	The end date and time of the period when the end user may purchase the product at this price.	No	No
price.providerId	string	The identifier of the metadata provider, from the <code>id</code> of the <code>CMSVodData</code> element of the export.	No	Yes
price.value	number	The value of the price in the specified currency.	No	Yes
Private Metadata	string	Used to pass data directly from the customer to the end user device without any processing. One possible use is to pass a list of key-word / value pairs separated by semi-colons. No validation is done by the Metadata Server on the value of this field.	No	No
ProfileName	string	Allows associating a product to a profile managed externally.	No	No
promotions	list of string (ids)	Note Since MDS 1.2 A list of ids of promotions that apply to this product.	No	No
provider	string	The identifier of the metadata provider, from the <code>id</code> of the <code>CMSVodData</code> element of the export.	No	Yes
rental Duration	integer	Number of seconds from the first viewing during which a VoD asset can still be watched (e.g. 86400)	No	No

Name	Type	Description	Localized	Always available
startPurchase	string: a date and time in ISO 8601 format	The start date and time of the period when the end user may purchase this product.	No	No
startValidity	string: a date and time in ISO 8601 format	The start date and time of the period when this product is valid. Access to the content/event sold by this product is not allowed before this time.	No	No
title	string	The name of the product. Danger! This field is not localized. Multi-language clients should use the TitleForProduct field instead	No	Yes
TitleForProduct	string	The name of the product.	Yes	No
type	string: one of "subscription", "single", "multiple" or "bundle"	The type of product. <ul style="list-style-type: none"> ▶ single products reference only one content item. ▶ multiple products reference an immutable selection of content items, payable in a single transaction. ▶ subscription products reference a mutable selection of content items, payable as a recurring subscription. 	No	Yes
xml	string: always "Product"	The type of object.	No	Yes

Example

```
{
  "_id" : "LYS008985455|hi_IN",
  "startPurchase" : 1322697600.0,
  "xml" : "Product",
```

```

"endValidity" : 1638489600.0,
"platformRef" : "LYS008900560",
"ordering" : "false",
"price" : {
  "startPurchase" : 1322697600.0,
  "currency" : "EUR",
  "endPurchase" : 1638489600.0,
  "value" : 3.0
},
"startValidity" : 1322697600.0,
"endPurchase" : 1638489600.0,
"impulsive" : "true",
"rentalDuration" : "86400",
"providerId" : "CMS4X",
"TitleForProduct" : "this is title for product",
"title" : "CDN_Preloading_Version_Content_VODItem",
"locale" : "hi_IN",
"type" : "single",
"id" : "LYS008985455"
}

```

3.13 ProductLink JSON object

Used to represent a link between a vodItem and product.

Example

```

{
  "_id" : 207,
  "xml" : "ProductLink",
  "providerId" : "CMS4X",
  "vodItemId" : "LYS008985826",
  "productId" : "LYS008985827"
}

```

3.14 VodItem JSON object

This object represents an instance of a content item being scheduled into a catalogue node.

Name	Type	Description	Localized	Always available
_id	string	Internal identifier for the object.	No	Yes

Name	Type	Description	Localized	Always available
contentRef	string	The CMS ID of the technical content which has been scheduled	No	Yes
DisplayPriority	JSON object (see below)	The priority order to display this item in each catalogue node in which it appears.	No	No
DisplayPriority.<CMS-id>	number	The priority order to display this item when it appears in the catalogue with ID <CMS-id>	No	No
id	string	The CMS' identifier for this VodItem.	No	Yes
nodeRefs	list of string	IDs of the catalogues which this item belongs to	No	No
period	JSON object (see below)	The time period this item will appear in the catalogue.	No	No
period.duration	number	The length of time this item will appear in the catalogue, in seconds.	No	No
period.end	string: a date and time in ISO 8601 format	The time this item will stop appearing in the catalogue.	No	Yes
period.start	string: a date and time in ISO 8601 format	The time this item will start appearing in the catalogue.	No	Yes
previewDate	date	The date from which this entity can be viewed as "test data". Note, that the preview period is between previewDate and period.start (when the item becomes available to the general public.	No	No
Private Metadata	string	Generic field used to pass directly data from the customer to the end user device without any CMS/SDP processing.	No	No

Name	Type	Description	Localized	Always available
		One possible use it to pass a list of key-word / value pairs separated by semi-colons.		
providerId	string	Unique metadata provider identifier.	No	Yes
Recommended VodItemIds	list	A list of other VodItems which are recommended for this item, with higher ranks denoting a stronger recommendation. 0 denotes not ranked.	No	No
title	string	Technical identification of the VodItem.	No	No
type	string: one of "catchup", "truevod", "pushvod", "pullvod"	The type of this VodItem.	No	No
xml	string: always "VodItem"	The type of the object	No	Yes

Example

```
{
  "_id" : "VI5991_001",
  "xml" : "VodItem",
  "title" : "5991_Simple_Voditem_001",
  "nodeRefs" : "LYS000600515",
  "contentRef" : "SCONT5991_001",
  "period" : {
    "duration" : "315792000",
    "start" : 1322697600.0,
    "end" : 1638489600.0
  },
  "providerId" : "CMS4X",
  "DisplayPriority" : {
    "LYS000000153" : 2
  },
  "id" : "VI5991_001",
}
```

3.15 Image JSON object

Note | Since MDS 1.1

This object represents an image.

Name	Type	Description	Localized	Always available
_id	string	Internal identifier for the object.	No	Yes
id	string	Public identifier for the object	No	Yes
title	string	Image title	No	Yes
illustrated Ref	string	A main content (OR main promotion) Id to which a main image is linked to. This attribute is only mentioned on a main image.	No	Yes
mainImage Ref	string	A main image id. This attribute is only mentioned on a technical image	No	No
profileRef	string	The encoding profile Id. If it is omitted, the content is unlinking from the profile. A profile Id previously defined that is missing is unlinked	No	No
ImageType	string	The image type, one of a set of predefined codes to determine when it is appropriate to display an image.	No	No
Private Metadata	string	Generic data field.	No	No
media	sub-object	The media details of the promo.	No	Yes
media. {format}	sub-object	The format of the image object.	No	No

Name	Type	Description	Localized	Always available
media. {format}.file Name	string	The endpoint filename.	No	No
media. {format}.id	string	The id of the media image.	No	No
media. {format}.format	string	The format of the media image.	No	No
technical	sub-object	A technical representation of an image object, (only occurs on an editorial image)	No	No
voditem	sub-object	A scheduling entity to determine when an image is available	No	No

Example

```
{
  "_id": "CMS4X_7_1_1_MAINIMAGE",
  "deviceType": [],
  "id": "CMS4X_7_1_1_MAINIMAGE",
  "illustratedRef": "CMS4X_7_1_1",
  "provider": "CMS4X",
  "technical": [
    {
      "deviceType": [],
      "id": "CMS4X_7_1_1_SDIMAGE",
      "mainImageRef": "CMS4X_7_1_1_MAINIMAGE",
      "profileRef": "LYS000000135",
      "provider": "CMS4X",
      "title": "CMS4X_7_1_1_SD_IMAGE_TITLE",
      "voditems": [
        {
          "DisplayPriority": {
            "LYS000005818": 0
          },
          "contentRef": "CMS4X_7_1_1_SDIMAGE",
          "deviceType": [],
          "id": "CMS4X_7_1_1_SDIMAGEVOD",
          "nodeRefs": [
            "LYS000005818"
          ],
          "period": {
```


Name	Type	Description	Localized	Always available
_id	string	Internal identifier for the object.	No	Yes
Definition	string	The video definition ("HD", "SD" or "3D")	No	No
duration	string	The approximate duration of the trailer, in seconds.	No	Yes
id	string	The CMS' identifier for the object.	No	Yes
Private Metadata	string	Generic field used to pass directly data from the customer to the end user device without any CMS/SDP processing. One possible use it to pass a list of key-word / value pairs separated by semi-colons.	No	No
profileRef	string	The CMS id of the associated encoding profile.	No	No
provider	string	The identifier of the metadata provider, from the id of the CMSVodData element of the export.	No	Yes
title	string	The title of the trailer.	No	Yes
media	sub-object	The media details of the promo.	No	Yes
media. {format}	sub-object	The format of the media object.	No	No
media. {format}.frame Duration	number	The duration of the trailer.	No	No
media. {format}.file Name	string	The endpoint filename.	No	No

Name	Type	Description	Localized	Always available
media. {format}.id	string	The id of the media promotion.	No	No
media. {format}.format	string	The format of the media promotion.	No	No
technical	sub-object	<p>Note Since MDS 1.1</p> <p>A technical promotion child of the parent editorial promotion. Has the same fields as the core</p>	No	No
voditem	sub-object	<p>Note Since MDS 1.1</p> <p>A vod item containing scheduling information about the promotion. For further details see VodItem JSON object</p>	No	No

Example

```
{
  "Definition" : "SD",
  "title" : "VDD13_SD_PRO_TITLE",
  "media" : {
    "AV_PlaylistName" : {
      "frameDuration" : 0,
      "fileName" : "index.m3u8",
      "id" : "LYS000009758",
      "format" : "AV_PlaylistName"
    }
  },
  "deviceType" : [],
  "provider" : "CMS4X",
  "duration" : 120,
  "profileRef" : "LYS000000045",
  "id" : "VDD13SDPROM"
}
```

4 BTV delivery APIs

These APIs are used by client applications to obtain data about broadcast content and products. They return objects of multiple types, aggregated to make presenting the data easier.

4.1 /metadata/delivery/<provider>/btv/editorials

Caution!

In older versions of MDS, this API was known as :

```
/metadata/delivery/btv/programmes
```

This is not to be confused with the currently implemented, and accessible, programmes API, which correctly follows CMS conventions.

The purpose of this API is to deliver editorial, event and technical content metadata to clients. This metadata can include the editorial metadata, programme metadata and technical metadata of any linked catch-up or start-over Assets.

Each object returned is an aggregated combination of editorial, programme and technical Content. Channel data is NOT included. For channel data see [/metadata/delivery/<provider>/btv/services](#) ^{p.66}

The difference between this editorial API and the similar programmes API is the orientation from which we are viewing the data. For example, the programmes API is a more time-based / EPG view, based upon the CMS programmes, whereas this editorial API is based upon a content view, so that we can see all scheduled instances of a certain piece of content, and any associated catch ups, under the same aggregated response object.

To use this API, send a HTTP GET request to the URL

Caution!

provider is a mandatory part of the delivery service endpoint, narrowing down queries to a single service provider to allow for api clarity and security.

```
http://<host>:<port>/metadata/delivery/<provider>/btv/editorials
```

Example:

```
http://172.16.8.201:12123/metadata/delivery/CMS4X/btv/editorials?filter={ "event.
period.end": { "$gt": 71367440200.0 } }&sort=[[ "event.period.start", 1]]
&fields=[]&offset=0&limit=10&pretty=true
```

Query Parameters

This API performs queries over [Programme \(BTV\) JSON object](#)^{p.80} objects. The field names used in the `filter`, `sort` and `fields` arguments relate to these objects.

Name	Type	Description	Required
filter	JSON object	A key/value pairing list. Where key is a fieldname, and value is the value the field should be. <code>filter={ "programme.period.end": { "\$gt": 1367440200.0 } }</code>	Yes
sort	list of lists (pairs)	A list of pairs, where a pair is a list containing a field name and a sort order. Where a sort order of 1 is Ascending, and a sort order of -1 is descending. <code>sort=[["programme.start", 1]]</code>	No
fields	list of strings	A list of fields names to return in the response. <code>fields=["Title", "programme.start", "programme.end", "productRefs"]</code>	No
offset	integer	The number of records to skip. For pagination. <code>offset=0</code>	No
limit	integer	The number of records to return. For pagination. <code>limit=10</code> Danger!	No
		Please note that <code>limit=0</code> used to bring back unbounded results, but this behaviour has now been changed to return 0 results.	
cache	boolean	True to allow caching on CDN, false to prevent CDN caching. This just sets or unsets HTTP headers.	No
pretty	boolean	True to return human readable formatted JSON. False to return compact and efficient JSON.	No

Example Query Parameters

```
filter={ "programme.period.end": { "$gt": 1367440200.0 } }
sort=[["programme.period.start", 1]]
fields=[]
offset=0
limit=10
pretty=true
```

Success Example

Given an EPG that looks like the following

	BBC One (1)	ITV (3)
19:00	The One Show Ep455	Emmerdale
19:30	Bang Goes the Theory	Friends S2E2 (CU)
20:00	Eastenders (CU)	James Nesbits Ireland
20:30	The One Show Ep455	Friends S2E2 (CU)
21:00	The Prisoners	Broadchurch
21:30	"	"

If we request all events after 20:30 (which is the current time)

```
http://172.16.8.201:12123/metadata/delivery/CMS4X/btv/programmes?filter={ "programme.
period.end": { "$gt": 1367440200.0 } }&sort=[["programme.period.start", 1]]
&fields=[]&offset=0&limit=10&pretty=true
```

Then we will receive a response like the following :

HTTP 200

```
{
  "editorials": [
    {
      "id": "CT06",
      "title": "Friends S2E2",
```

```

    "programmes": [
      {
        "id": "E07",
        "period": {
          "start": 1367436600,
          "end": 1367442000
        }
      }
    ],
    "technicals": [
      {
        "id": "T07",
        "CUEndDate": 1367445600,
        "CUSTartDate": 1367436600
      }
    ]
  },
  {
    "id": "CT03",
    "title": "Eastenders",
    "programmes": [
      {
        "id": "T03",
        "CUEndDate": 1367445600,
        "CUSTartDate": 1367438400
      }
    ]
  },
  {
    "id": "CT01",
    "title": "The One Show Ep455",
    "programmes": [
      {
        "id": "E04",
        "period": {
          "start": 1367440200,
          "end": 1367442000
        }
      }
    ]
  },
  {
    "id": "CT04",
    "title": "The Prisoners",
    "programmes": [
      {
        "id": "E05",
        "period": {
          "start": 1367442000,
          "end": 1367445600
        }
      }
    ]
  }
}

```

```

    }
  ],
  {
    "id": "CT08",
    "title": "Broadchurch",
    "programmes": [
      {
        "id": "E10",
        "period": {
          "start": 1367442000,
          "end": 1367445600
        }
      }
    ]
  }
],
"total_records" : 5,
"version" : 201301011500
}

```

4.2 /metadata/delivery/<provider>/btv/products

The purpose of this API is to deliver BTV product metadata to clients. This metadata only includes BTV product metadata. To retrieve the contents of the product you will need to use either the channels API <https://atlassian.hq.k.grp/confluence/pages/viewpage.action?pageId=28871216> or Programmes API </metadata/delivery/<provider>/btv/programmes>^{p.61} and filter by product.

To use this API, send an HTTP GET request to the URL

Caution!

provider is a mandatory part of the delivery service endpoint, narrowing down queries to a single service provider to allow for api clarity and security.

```
http://<host>:<port>/metadata/delivery/<provider>/btv/products
```

Example

```
http://172.16.8.201:12123/metadata/delivery/CMS4X/btv/products?filter={"id":
"JFKDLFFJJS98","locale":"en_gb"}&sort=[["product.price",1]] &fields=["product.title",
"product.price"]&offset=0&limit=10&cache=false&pretty=true
```

Query Parameters

This API performs queries over [Product \(BTV\) JSON object](#) ^{p.87} objects. The field names used in the `filter`, `sort`, `order` and `fieldList` arguments relate to these objects.

Caution! Only BTV Products will be returned by this API.

Name	Type	Description	Required
filter	JSON object	A key/value pairing list. Where key is a fieldname, and value is the value the field should be. <code>filter={"id":"JFKDLFFJJS98","locale":"en_gb"}</code>	No
sort	list of lists (pairs)	A list of pairs, where a pair is a list containing a field name and a sort order. Where a sort order of 1 is Ascending, and a sort order of -1 is descending. <code>sort=[["price.value",1]]</code>	No
fields	list of strings	A list of fields names to return in the response. <code>fields=["title", "price.value", "price.currency"]</code>	No
offset	integer	The number of records to skip. For pagination. <code>offset=0</code>	No
limit	integer	The number of records to return. For pagination. <code>limit=10</code>	No
		Danger! Please note that <code>limit=0</code> used to bring back unbounded results, but this behaviour has now been changed to return 0 results.	
cache	boolean	True to allow caching on CDN, false to prevent CDN caching. This just sets or unsets HTTP headers.	No
pretty	boolean	True to return human readable formatted JSON. False to return compact and efficient JSON.	No

Example Query Parameters

Example JSON request

```
"filter":{"id":"JFKDLFFJJS98","locale":"en_gb"}
"sort":[[{"price.value",1}]
"fields":["title", "price.value", "price.currency"]
"skip":0
"limit":10
"hints":true
"hintLevel":20
"cache":false
"pretty":true
```

Success response

HTTP 200

```
{
  "products": [
    {
      "title": "The Amazing Spiderman 3D HD",
      "price": {
        "value": 3.99
        "currency": "GBP"
      }
      "id": "JFKDLFFJJS98",
    }
  ],
  "total_records" : 30,
  "version" : 201301011500
}
```

4.3 /metadata/delivery/<provider>/btv/programmes

Caution!

In older versions of MDS, this API was known as :

```
/metadata/delivery/btv/events
```

That name has now been deprecated and removed, in favour of the current CMS convention.

The purpose of this API is to deliver Programme (Event based) metadata to clients. This metadata can include the Programme metadata, and Technical metadata of any linked catch-up or start-over Assets.

Each object returned is an unique combination of Programme and Event. Channel data is NOT included. For channel data see [/metadata/delivery/<provider>/btv/services](#) ^{p.66}

To use this API, send an HTTP GET request to the URL

Caution!

provider is a mandatory part of the delivery service endpoint, narrowing down queries to a single service provider to allow for api clarity and security.

```
http://<host>:<port>/metadata/delivery/<provider>/btv/programmes
```

Example

```
http://172.16.8.201:12123/metadata/delivery/CMS4X/btv/programmes?filter={"channel
Id":"LJDLSADJASD21","locale":"en_gb","isCatchUp":"false"}&sort=[["period.
start",1]] &fields=["Title","period.start","period.end","product
Refs"]&offset=1&limit=10&pretty=true
```

Query Parameters

This API performs queries over [Programme \(BTV\) JSON object](#) ^{p.80} objects. The field names used in the **filter**, **sort** and **fields** arguments relate to these objects.

Name	Type	Description	Required
filter	JSON object	A key/value pairing list. Where key is a fieldname, and value is the value the field should be. filter ={"channel.id":"LJDLSADJASD21", "locale":"en_gb","programme.isCatchUp":"false"}	No
sort	list of lists (pairs)	A list of pairs, where a pair is a list containing a field name and a sort order. Where a sort order of 1 is Ascending, and a sort order of -1 is descending. sort =[["period.start",1]]	No
fiels	list of strings	A list of fields names to return in the response. fields =["Title","event.start","event.end","productRefs"]	No

Name	Type	Description	Required
offset	integer	The number of records to skip. For pagination. <code>offset=0</code>	No
limit	integer	The number of records to return. For pagination. <code>limit=10</code> Danger! Please note that <code>limit=0</code> used to bring back unbounded results, but this behaviour has now been changed to return 0 results.	No
cache	boolean	True to allow caching on CDN, false to prevent CDN caching. This just sets or unsets HTTP headers.	No
pretty	boolean	True to return human readable formatted JSON. False to return compact and efficient JSON.	No

Example JSON query objects

```
filter={"channelId":"LJDLSADJASD21","locale":"en_gb","isCatchUp":"false"}
sort=[["period.start",1]]
fields=["Title","period.start","period.end","productRefs"]
offset=1
limit=10
pretty=true
```

Success response

HTTP 200

```
{
  "programmes": [
    {
      "Title": "BBC Wales News",
      "id": "ALJLASDLSLDS8323",
      "period": {
        "start": "1369955700.0"
        "end": "1369956000.0"
      }
    },
  ],
}
```

```

    "productRefs": ""
  },
  {
    "Title": "Neighbours",
    "id": "JFDDFKSFJ87976",
    "period": {
      "start": "1369956000.0",
      "end" : "1369962600.0"
    },
    "productRefs": ""
  },
  {
    "Title": "Eggheads",
    "id": "SDKDASDKDSAD808098",
    "period": {
      "start": "1369955700.0",
      "end" : "1369956000.0"
    },
    "productRefs": ""
  }
],
  "total_records" : 30,
  "version" : 201301011500
}

```

4.4 /metadata/delivery/<provider>/btv/series

The purpose of this API is to deliver Series/Season metadata to clients.

To use this API, send an HTTP GET request to the URL

Caution!

provider is a mandatory part of the delivery service endpoint, narrowing down queries to a single service provider to allow for api clarity and security.

```
http://<host>:<port>/metadata/delivery/<provider>/btv/series
```

Example

```
http://172.16.8.201:12123/metadata/delivery/CMS4X/btv/series?filter={"channel.id":"LJDLSADJASD21","locale":"en_gb"}&sort=[["Title",1]] &fields=["Title","Synopsis"]&offset=0&limit=10&cache=false&pretty=true
```


Query Parameters

Name	Type	Description	Required
filter	JSON object	A key/value pairing list. Where key is a fieldname, and value is the value the field should be. <code>filter={"channel.id":"LJDLsADJASD21", "locale":"en_gb"}</code>	No
sort	list of lists (pairs)	A list of pairs, where a pair is a list containing a field name and a sort order. Where a sort order of 1 is Ascending, and a sort order of -1 is descending. <code>sort=[["Title",1]]</code>	No
fields	list of strings	A list of fields names to return in the response. <code>fields=["Title","Synopsis"]</code>	No
offset	integer	The number of records to skip. For pagination. <code>offset=0</code>	No
limit	integer	The number of records to return. For pagination. <code>limit=10</code> Danger! Please note that <code>limit=0</code> used to bring back unbounded results, but this behaviour has now been changed to return 0 results.	No
cache	boolean	True to allow caching on CDN, false to prevent CDN caching. This just sets or unsets HTTP headers.	No
pretty	boolean	True to return human readable formatted JSON. False to return compact and efficient JSON.	No

Success Response

HTTP 200

```
{
```

```
"series": [
  {
    "PrivateMetadata": "private",
    "Rating": 0,
    "Title": "x",
    "id": "CDNPS624201",
    "locale": "xx_xx",
    "nls": {
      "Title": "550105010500"
    },
    "providerId": "CMS4",
    "title": "CDN_Preloading_6242"
  },
  {
    "PrivateMetadata": "private",
    "Rating": 0,
    "Title": "Title en_GB",
    "id": "CDNPS624201",
    "locale": "en_GB",
    "nls": {
      "Title": "4d374d3d2f042f4106423329010f018f7e8f8f00"
    },
    "providerId": "CMS4",
    "title": "CDN_Preloading_6242"
  }
],
"total_records": 2,
"version": "20130603114314"
}
```

4.5 /metadata/delivery/<provider>/btv/services

Caution!

In older versions of MDS, this was known as :

```
/metadata/delivery/btv/channels
```

That endpoint has now been deprecated and deleted, in favour of this endpoint that follows CMS conventions.

The purpose of this API is to deliver service metadata to clients. This metadata can include the Editorial metadata and Technical metadata of the channel versions.

No programme or event data is available. For programme and event data see </metadata/delivery/<provider>/btv/programmes> ^{p.61}

To use this API, send an HTTP GET request to the URL

Caution!

provider is a mandatory part of the delivery service endpoint, narrowing down queries to a single service provider to allow for api clarity and security.

```
http://<host>:<port>/metadata/delivery/<provider>/btv/services
```

Example

```
http://172.16.8.201:12123/metadata/delivery/CMS4X/btv/services?filter={"locale":"en_gb"}&sort=[[ "Title",1]] &fields=["Title", "tvChannel"]&offset=0&limit=10&pretty=true
```

Query Parameters

This API performs queries over [Service \(BTV\) JSON object](#)^{p.69} objects. The field names used in the **filter**, **sort** and **fields** arguments relate to these objects.

Name	Type	Description	Required
filter	JSON object	A key/value pairing list. Where key is a fieldname, and value is the value the field should be. filter ={"channel.id": "LJDLASDJASD21", "locale": "en_gb", "channel.catchUpSupport": "true", "active": "true", "regions": "Spain"}	No
sort	list of lists (pairs)	A list of pairs, where a pair is a list containing a field name and a sort order. Where a sort order of 1 is Ascending, and a sort order of -1 is descending. sort =[["channel.tvChannel", 1]]	No
fields	list of strings	A list of fields names to return in the response. fields =["channel.shortName", "channel.tvChannel"]	No
offset	integer	The number of records to skip. For pagination. offset =0	No
limit	integer	The number of records to return. For pagination. limit =10	No

Name	Type	Description	Required
		Danger! Please note that limit=0 used to bring back unbounded results, but this behaviour has now been changed to return 0 results.	
cache	boolean	True to allow caching on CDN, false to prevent CDN caching. This just sets or unsets HTTP headers.	No
pretty	boolean	True to return human readable formatted JSON. False to return compact and efficient JSON.	No

Note Since MDS 1.3

Example Query Parameters

```
filter={"id":"LJDLSADJASD21","locale":"en_gb", "active": "true"}
sort=[["tvChannel",1]]
fields=["Title", "tvChannel"]
offset=0
limit=10
pretty=true
```

Success response

HTTP 200

```
{
  "services": [
    {
      "editorial": {
        "Title": "BBC One Wales HD",
        "tvChannel": "169",
        "id": "LJDLSADJASD21"
      },
      "technical": {
        "id": "SIUOIDFJLS8237892374",
      }
    }
  ]
}
```

```

    "total_records": 30,
    "version" : 201301011500
}

```

4.6 Service (BTV) JSON object

Overview

These objects represent broadcast TV channels (Services in CMS terminology).

The objects are denormalized by editorial and technical channel, therefore for the channel structure similar to the following :



the data will be returned in the following structure :

```

{
  "services": [
    {
      "editorial": {
        "Title": "BBC One"
      },
      "technical": {
        "Title": "BBC One HD"
      }
    },
    {
      "editorial": {
        "Title": "BBC One"
      },
      "technical": {
        "Title": "BBC One 3D"
      }
    },
    {
      "editorial": {
        "Title": "Sky One"
      },
      "technical": {

```

```

    "Title": "Sky One HD"
  },
  {
    "editorial": {
      "Title": "Sky One"
    },
    "technical": {
      "Title": "Sky One 3D"
    }
  }
]
}

```

All objects are also denormalized on locale and providerId, therefore to avoid duplicate objects for various languages and/or service providers locale and providerId are seen as mandatory fields.

Fields

Name	Type	Description	Localized	Always available
_id	string	Internal identifier for the object.	No	Yes
active	boolean	Is the channel active? Inactive channels may not be presented to end users.	No	Yes
Carrying Network	list of string	List of semi-colon separated decimal values representing the list of DVB triplets linked to this channel. The decimal value calculation according to DVB triplet is customer dependent.	No	No
catchUp Support	boolean	Does the operator support catch-up events on this channel?	No	Yes
Categories	list of string	A list of keywords classifying the content of the channel. CMS supports these keywords: "Action" "Adult" "Adventure" "Comedy" "Documentary" "Drama" "Family" "Horror" "Kids-Family"	No	No

Name	Type	Description	Localized	Always available
		"Romance" "ScienceFiction" "Sport" "Suspense" "Thriller" "War" "Heist" "Extreme Violence" "Character Repeating Someone Else's Dialogue" "Drowning" "Concealed Weapon" "Undefined"		
companyId	string	The ID of the broadcaster company to which the channel is attached.	No	No
		Note This field is not required, but the CMS always populates it.		
Description	string	A description of the channel, from the CMS Service EPG key Description	Yes	No
drmInstanceName	string	A name that uniquely identifies the DRM system managing access to this channel. For channels protected by CAS (not DRM), this attribute is not present.	No	No
drmId	string	The identifier of the channel used by the DRM system managing access to this channel. Values of drmId will only be unique within a particular DRM instance. A drmId value will always be present when a drmInstanceName value is supplied. For channels protected by CAS (not DRM), this attribute is not present.	No	No
id	string	The CMS's identifier for the object.	No	Yes
locale	string	The locale used for localizable fields of the object.	No	No
longName	string	The channel's long name, for example, "The Biography Channel".	No	No

Name	Type	Description	Localized	Always available
		<p>Note This field is not required, but the CMS always populates it.</p> <p>Danger! This field is not localized. Multi-language clients should use the Title field instead.</p>		
Network Location	string	<p>The location of the A/V stream of the channel on the network. For adaptive streaming, this will be the channel's URL.</p> <p>In case of Harmonic OS, the value must be of the form <code>http://<delivery-ip>/Content/HLS/Live/Channel(<channel-name>)/index.m3u8</code></p>	No	No
Private Metadata	string	<p>Used to pass data directly from the operator to the end user device without any CMS/SDP processing.</p> <p>One possible use is to pass a list of key-word / value pairs separated by semi-colons.</p>	No	No
profileRef	string	The identifier of the profile applicable to this channel.	No	No
PromoImages	list of string	<p>A list of URLs of images promoting the channel.</p> <p>The Metadata Server does not validate the format of this field's value, and does not attempt to access the URLs to verify the existence of the image files.</p>	No	No
productRefs	list of string	A list of the CMS IDs of the products that sell this channel.	No	No

Name	Type	Description	Localized	Always available
providerId	string	The identifier of the metadata provider, from the <code>id</code> of the <code>CMSVodData</code> element of the export.	No	Yes
Rating.code	string	Parental rating code (from CMS)	No	Yes
Rating.precedence	integer	Quantitative rating value	No	Yes
Rating.name	string	Localized name for the rating, e.g. "Adult", "Adulto"	Yes	Yes
shortName	string	A short name for the channel, or its call letters.	No	No
startOverSupport	boolean	Does the operator support start-over events on this channel?	No	Yes
Title	string	The full name of the channel.	Yes	No
		<p>Note</p> <p>The CMS mandates that this field will be populated for at least one locale-form of each channel.</p>		
tvChannel	integer	The channel number to be presented to the end user.	No	Yes
type	string	Present on an editorial channel. If the channel originates from the CMS ingest this will be set to BTV.	No	Yes
xml	string: always "editorial"	The type of object.	No	Yes
nls.Title	string	The native language support for the title field - allows correct sorting for a	Yes	No

Name	Type	Description	Localized	Always available
		language, rather than relying on utf-8 ordering for sort.		

Example

call:

```
http://<server>:<port>/metadata/delivery/btv/channels?filter={}&sort=[["_id",1]]
&pretty=true&limit=3
```

```
{
  "services": [
    {
      "e": "LYS000088968|CMS4",
      "editorial": {
        "Rating": "12",
        "Title": "xyzabc",
        "_id": "LYS000088968|CMS4",
        "active": "false",
        "catchUpSupport": "false",
        "companyId": "CMS4",
        "id": "LYS000088968",
        "longName": "2",
        "nls": {
          "Title": "55575927292b010a010a00"
        },
        "productRefs": "",
        "providerId": "CMS4",
        "shortName": "2",
        "startOverSupport": "false",
        "tvChannel": 1
      },
      "locale": "xx_xx",
      "providerId": "CMS4"
    },
    {
      "e": "LYS000088968|CMS4",
      "editorial": {
        "Rating": "12",
        "Title": "44xyzabc",
        "_id": "LYS000088968|CMS4",
        "active": "false",
        "catchUpSupport": "false",
        "companyId": "CMS4",
        "id": "LYS000088968",

```

```

    "longName": "2",
    "nls": {
      "Title": "1a1a55575927292b010c010c00"
    },
    "productRefs": "",
    "providerId": "CMS4",
    "shortName": "2",
    "startOverSupport": "false",
    "tvChannel": 1
  },
  "locale": "en_GB",
  "providerId": "CMS4"
},
{
  "e": "LYS000088973|CMS4",
  "editorial": {
    "Rating": "8",
    "Title": "def",
    "_id": "LYS000088973|CMS4",
    "active": "true",
    "catchUpSupport": "true",
    "companyId": "CMS4",
    "id": "LYS000088973",
    "longName": "10",
    "nls": {
      "Title": "2d2f310107010700"
    },
    "productRefs": "LYS000093453",
    "providerId": "CMS4",
    "shortName": "10",
    "startOverSupport": "true",
    "tvChannel": 10
  },
  "locale": "xx_xx",
  "providerId": "CMS4",
  "t": "LYS000088974|CMS4",
  "technical": {
    "NetworkLocation": "11",
    "Rating": "10",
    "Title": "x",
    "_id": "LYS000088974|CMS4",
    "active": "true",
    "catchUpSupport": "false",
    "companyId": "CMS4",
    "drmId": "10",
    "drmInstanceName": "DRM_PlayReady",
    "id": "LYS000088974",
    "longName": "35",
    "mainChannelId": "LYS000088973",
    "nls": {
      "Title": "550105010500"
    }
  }
}

```

```

    },
    "productRefs": "SUB_BTV",
    "profileRef": "LYS000088970",
    "providerId": "CMS4",
    "shortName": "35",
    "startOverSupport": "false",
    "tvChannel": 35
  }
}
1,
"total_records": 8,
"version": "20130515130036"
}

```

See that the third editorial has a technical.

4.7 Content (BTV) JSON object

Overview

This object represents a piece of content.

These objects are denormalized on locale and providerId, therefore to avoid duplicate objects for various languages and/or service providers locale and providerId are seen as mandatory fields.

Fields

Name	Type	Description	Localized	Always available
_id	string	Internal identifier for the object.	No	Yes
title	string	Unique identifier of the content (duplicated across locales though)	No	Yes
providerId	string	Provider related identifier.	No	Yes
duration	integer	Movie approximate duration in seconds	No	Yes
mainContent Ref	string	Identification of the main content id	No	No

Name	Type	Description	Localized	Always available
episode Number	integer	Index of the episode of a series	No	No
seriesRef	string	Identification of parent series	No	No
profileRef	string	The encoding profile id	No	No
promoRefs	list of strings	The list of promotion ids	No	No
Title	string	The name of the content	Yes	Yes
Synopsis	string	The synopsis of the content	Yes	No
Description	string	The description of the content	Yes	No
Rating.code	string	Parental rating code (from CMS)	No	Yes
Rating.precedence	integer	Quantitative rating value	No	Yes
Rating.name	string	Localized name for the rating, e.g. "Adult", "Adulto"	Yes	Yes
IsRecordable	boolean	The content is recordable or not	No	No
Audio	list of string	A list of semi-colon separated locale-type pattern. Eng-Standard;Eng-Visual Impaired	No	No
Directors	list of string	List of directors	No	No
Producers	list of string	List of producers	No	No
Actors	list of string	List of actors	No	No

Name	Type	Description	Localized	Always available
Year	integer	Year of production	No	No
Language	string	The original language of the content	No	No
AudioMode	string	The audio mode available (free text), e.g. Mono, 5.1	No	No
Aspect	string	The picture ratio, e.g. 16:9	No	No
Definition	string	The picture definition, e.g. HD, SD	No	No
Studio	string	The content owner	No	No
PromolImages	list of string	A list of PromolImage urls	No	No
Categories	list of string	A list of categories	No	No
Countries	list of string	A list of countries	No	No
Subtitles	string	A list of "locale-type" mappings, i.e. Eng-Standard	No	No
Copyright	string	Copyright	No	No
ShortTitle	string	The short name of the content	Yes	No
BestSales Index	integer	1..n available as Top n	No	No
Episode	string	Episode text string	Yes	No
Viewing Number	integer	Number of times a user can see the content sold once purchased	No	No

Name	Type	Description	Localized	Always available
Copy Protections	string	A list of rules for controlling certain hardware products	No	No
ContentType	string	Free text	No	No
Total Downloads	integer	Total number of downloads of the content/episode	No	No
Scoring	integer	Score of the content/episode	No	No
Private Metadata	string	Generic field to pass directly data from customer to end user device	No	No
Viewing Counter	integer	Number of times a piece of content has been viewed	No	No
DvbCategories	list of string	List of DVB genres and sub-genres	No	No
Programme StartDate	date	If content is catch up then contains start time of corresponding event	No	No
Programme EndDate	date	If content is catch up then contains end time of corresponding event	No	No
ServiceLong Name	string	If content is catch up contains the service long name of corresponding event	No	No
CUStartDate	date	Start date of period during which recorded content can be seen in nPVR	No	No
CUEndDate	date	End date of period during which recorded content can be seen in nPVR	No	No
nls.Title	string	nls version of title to allow for correct sorting of items.		

Example

```
{
  "Rating": 10,
  "Title": "x",
  "_id": "VCONT6242_092X|CMS4",
  "duration": 0,
  "id": "VCONT6242_092X",
  "mainContentRef": "MCONT6242_901",
  "media": {
    "fileName": "NagraPRMSD5.ts",
    "fileSize": "1",
    "format": "AV_ClearTS",
    "frameDuration": "0",
    "id": "PRODMED6242_098X"
  },
  "nls": {
    "Title": "550105010500"
  },
  "profileRef": "LYS000090001",
  "providerId": "CMS4",
  "title": "625742_Version_Content_002x"
}
```

4.8 Programme (BTV) JSON object

Overview

This object represents a programme (CMS programme) most obviously useful for an EPG grid type view.

All programmes are denormalized on locale and providerId, therefore to avoid duplicate objects for various languages and/or service providers locale and providerId are seen as mandatory fields.

Fields

Name	Type	Description	Localized	Always available
_id	string	Internal identifier for the object.	No	Yes
Actors	list of string	The actors associated with the programme.	No	No

Name	Type	Description	Localized	Always available
Aspect	string	The picture aspect ratio. 4:3 16:9 Widescreen	No	No
Audio	list of string	A list of "locale-type" patterns representing the audio streams available for this content. ▶ locale: 3-letters ISO language code ▶ type: VisualImpaired or Standard Eng-Standard Eng-VisualImpaired Fra-Standard	No	No
AudioMode	string	The audio mode available. Mono SRS THX 5.1 Nicam Stereo Dual Mono	No	No
Categories	list of string	The operator-defined category or genre names relevant to this content.	No	No
serviceRef	string	The CMS id of the channel carrying the programme.	No	Yes
Copyright	string	A copyright message.	Yes	No
Countries	list of string	The ISO 2-letter codes representing countries relevant to this programme.	No	No

Name	Type	Description	Localized	Always available
Definition	string: "HD", "SD" or "3D"	The video definition	No	No
Description	string	The description of the programme.	Yes	No
Directors	list of string	The directors associated with the programme.	No	No
Episode	string	Localized text representation of the index of the episode in the series. This field should be used to display the episode number. Season 3, Episode 2	Yes	No
eventId	number	The id of the scheduled programme	No	No
period	JSON object (see below)	Details of the broadcast schedule for this programme.	No	Yes
period.duration	number	The length of time this item will appear in the catalogue, in seconds. If not supplied the duration is omitted not calculated.	No	No
period.end	string: a date and time in ISO 8601 format	The end time of the broadcast event.	No	Yes
period.providerId	string	The identifier of the metadata provider, from the id of the CMSVodData element of the export.	No	Yes
period.start	string: a date and time in ISO 8601 format	The start time of the broadcast event.	No	Yes
id	string	The CMS' identifier for the object.	No	Yes

Name	Type	Description	Localized	Always available
isCatchUp	boolean	Is the time-shift "catch-up" function available for this event?	No	No
Is Recordable	boolean	May end users record this content?	No	No
isStartOver	boolean	Is the time-shift "start-over" function available for this event?	No	No
Is Timeshifted	boolean	Is the programme a time-shifted broadcast of an earlier programme? Typically used for "+1 hour" channels.	No	No
Language	string	The original language of the content (3-letter ISO language code)	No	No
locale	string	The locale used for localizable fields of the object.	No	Yes
Private Metadata	string	Generic field used to pass directly data from the operator to the end user device without any processing. One possible use it to pass a list of key-word / value pairs separated by semi-colons.	No	No
Producers	list of string	The producers associated with the programme.	No	No
productRefs	list of string	The CMS ids of the products which provide access to this programme.	No	No
profileRef	string	The CMS id of the encoding profile which applies to this asset.	No	No
PromoImages	list of string	The URLs of promoting pictures. URL-safe chars only.	No	No
providerId	string	The identifier of the metadata provider, from the id of the CMSVodData element of the export.	No	Yes

Name	Type	Description	Localized	Always available
Rating.code	string	Parental rating code (from CMS)	No	Yes
Rating.precedence	integer	Quantitative rating value	No	Yes
Rating.name	string	Localized name for the rating, e.g. "Adult", "Adulto"	Yes	Yes
Recommended Programme Ids	list of string	<p>The CMS programme Ids recommended for this programme (information taken from a recommendation engine or from the customer) with rank (integer >= 0) using the following pattern:</p> <pre><ProgrammeId>/<Rank></pre> <p>If Rank is 0, no rank management. The higher the rank value, the more highly recommended is the referenced programme.</p> <p>A referenced programme may be scheduled before or after the current one, and may be on a different channel.</p>	No	No
Recommended VodItemIds	list of string	<p>The CMS VodItem Ids recommended for this programme (this info is coming from the recommendation engine or from the customer) with rank (integer >= 0) using the following pattern:</p> <pre><VodItemId>/<Rank></pre> <p>If Rank is 0, no rank management. The higher the rank value, the more highly recommended is the referenced Vod Item.</p>	No	No
ShortTitle	string	The short form of the title of this programme. Intended for use on devices with limited space.	Yes	No
SOCU_filename	string	Name of the asset file when this event is available via CatchUp/StartOver functionality.	No	No

Name	Type	Description	Localized	Always available
Studio	string	The name of the owner of the content broadcast in this programme.	No	No
Subtitles	string	<p>A list of "locale-type" patterns representing the subtitle streams available for this content.</p> <ul style="list-style-type: none"> ▶ locale: 3-letters ISO language code ▶ type: HearingImpaired or Standard <div style="background-color: #f0f0f0; padding: 5px; margin-top: 10px;"> <p>Eng-Standard Eng-HearingImpaired Fra-Standard</p> </div>	No	No
Synopsis	string	A longer description of the programme.	Yes	No
title	string	<p>The name of the programme.</p> <p>Danger! This field is not localized. Multi-language clients should use the Title field instead.</p>	No	Yes
Title	string	<p>The title of the programme displayed to the user.</p> <p>Note The CMS mandates that this field will be populated for at least one locale-form of the asset.</p>	Yes	No
type	string	FIXME: ?	No	No
xml	string: always "Programme"	The type of the object.	No	Yes

Name	Type	Description	Localized	Always available
Year	string	The year of production of the content.	No	No
nls.Title	string	The native language support for the title field - allowing for sorting according to the native language, rather than utf-8 order, as would be done through the Title field itself.	Yes	No
editorial	object	The associated parent editorial of this programme Content (BTV) JSON object ^{p.76} .	Yes	No
editorial.technicals	list of objects	The child technicals of the associated editorial Content (BTV) JSON object ^{p.76} .	Yes	No

Example

```
{
  "eventId" : "1",
  "xml" : "Programme",
  "title" : "SLOT 2",
  "productRefs" : "LYS000023378",
  "channelId": "LYS20384029384",
  "locale": "en_gb",
  "period" :
  {
    "duration" : "10800",
    "start" : "2013-03-01T00:30:00Z",
    "providerId" : "CMS4X",
    "end" : "2013-03-01T03:30:00Z"
  }
  "providerId" : "CMS4X",
  "isCatchUp" : "false",
  "isStartOver" : "false",
  "id" : "LYS000023628",
  "Definition" : "3D",
  "AudioMode" : "THX",
  "IsTimeshifted" : "0",
  "PromoImages" : ["http://url.ch/image.jpg", "http://url.ch/image2.jpg"],
  "Description" : "Description import 1 en_GB",
  "Language" : "eng",
  "Title" : "Title import 1 en_GB",
  "Rating" : "1",
```

```

"Synopsis" : "Synopsis import 1 en_GB",
"Audio" : ["Eng-Standard", "Fra-VisualImpaired"],
"Producers" : ["Producers 1", "Producers 2"],
"Directors" : ["Directore 1", "Directore 2"],
"IsRecordable" : "1",
"Actors" : ["Actors 1", "Actors 2"],
"Categories" : ["Action", "Action-Adventure"],
"Aspect" : "Widescreen",
"Year" : "2011",
"Studio" : "Studio",
"SOCU_filename" : "SOCU_filename",
"Subtitles" : ["Eng-Standard", "Fra-HearingImpaired"]
}

```

4.9 Product (BTV) JSON object

Overview

These objects represent products which sell broadcast TV content.

All objects are also denormalized on locale and providerId, therefore to avoid duplicate objects for various languages and/or service providers locale and providerId are seen as mandatory fields.

Fields

Name	Type	Description	Localized	Always available
_id	string	Internal identifier for the object.	No	Yes
business ProductType	string	A numeric value provided by the CAS to classify the type of product.	No	No
casInstance Name	string	The name that uniquely identifies the CAS server managing access to this channel or event.	No	No
casId	string	The identifier of this product within the CAS. This is the technical ID for all conditional access related operations.	No	No

Name	Type	Description	Localized	Always available
		Note		
		For the Nagra CAS this ID is a numeric value with at most 12 digits.		
casMopId	string	The MOP ID assigned by the Nagra CAS to this product, if applicable. The presence of this value depends upon the CAS features activated for the customer project	No	No
endPurchase	string: a date and time in ISO 8601 format	The end date and time of the period when the end user may purchase this product.	No	No
endValidity	string: a date and time in ISO 8601 format	The end date and time of the period when this product is valid. Access to the content/event sold by this product is not allowed after this time.	No	No
id	string	The CMS's identifier for the object.	No	Yes
impulsive	boolean	Can the product can be acquired by the end-user "impulsively", that is, without requiring a right to be delivered explicitly from the head-end?	No	No
		Note		
		CMS 4 always sets this field to <code>true</code> .		
isSOCU	boolean	Can this product be used to view time-shifted (start-over or catch-up) events? If this field is not present, it should be treated as <code>false</code> .	No	No
ordering	boolean	Can the product can be acquired by the end-user in "ordering" mode, i.e. via a right delivered from the head-end?	No	No

Name	Type	Description	Localized	Always available
		Note CMS 4 always sets this field to false .		
price	sub-object	Note MDS currently only supports one price in one currency per product The price this product can be purchased for.	No	No
price.currency	string	The currency the price is denominated in.	No	Yes
price.startPurchase	string: a date and time in ISO 8601 format	The start date and time of the period when the end user may purchase the product at this price.	No	No
price.endPurchase	string: a date and time in ISO 8601 format	The end date and time of the period when the end user may purchase the product at this price.	No	No
price.providerId	string	The identifier of the metadata provider, from the id of the CMSBtvData element of the export.	No	Yes
price.value	number	The value of the price in the specified currency.	No	Yes
Private Metadata	string	Used to pass data directly from the customer to the end user device without any processing. One possible use is to pass a list of key-word / value pairs separated by semi-colons. No validation is done by the Metadata Server on the value of this field.	No	No

Name	Type	Description	Localized	Always available
ProfileName	string	Allows associating a product to a profile managed externally.	No	No
providerId	string	The identifier of the metadata provider, from the <code>id</code> of the <code>CMSBtvData</code> element of the export.	No	Yes
locale	string	The language of the profile.	Yes	Yes
startPurchase	string: a date and time in ISO 8601 format	The start date and time of the period when the end user may purchase this product.	No	No
startValidity	string: a date and time in ISO 8601 format	The start date and time of the period when this product is valid. Access to the content/event sold by this product is not allowed before this time.	No	No
title	string	The name of the product.	No	Yes
		<p>Danger!</p> <p>This field is not localized. Multi-language clients should use the TitleForProduct field instead</p>		
TitleForProduct	string	The name of the product.	Yes	No
type	string: either "single" or "subscription"	<p>The type of product.</p> <ul style="list-style-type: none"> ▶ single products reference only one broadcast event. ▶ subscription products reference all programmes of one or more services (Bouquet). 	No	Yes
xml	string: always "Product"	The type of object	No	Yes

Name	Type	Description	Localized	Always available
business ProductRefs	list of string ids	<p>Note Since MDS 1.1STD4</p> <p>List of ids referring to parent "business products"</p>	No	No

Example

```
{
  "_id" : "LYS000023359",
  "startPurchase" : "2013-02-01T00:00:00Z",
  "xml" : "Product",
  "endValidity" : "2013-02-02T00:00:00Z",
  "startValidity" : "2013-02-01T00:00:00Z",
  "issOCU" : "false",
  "priceList" : [
    {
      "startPurchase" : "2013-02-01T00:00:00Z",
      "currency" : "EUR",
      "providerId" : "CMS4X",
      "endPurchase" : "2013-02-02T00:00:00Z",
      "value" : 20.0
    }
  ],
  "title" : "SUBSCRIPTION - 2",
  "endPurchase" : "2013-02-02T00:00:00Z",
  "impulsive" : "false",
  "ordering" : "true",
  "providerId" : "CMS4X",
  "type" : "subscription",
  "id" : "LYS000023359"
}
```

4.10 Profile (BTV)

These objects represent a set of features which apply to a technical channel.
 FIXME:CHECK descriptions and all "required/allowed" entries.

Fields

Name	Type	Description	Localized	Always available
_id	string	Internal identifier for the object.	No	Yes
id	string	The CMS's identifier for the object.	No	Yes
features	string: a semicolon-separated list of feature names	The features applicable to the profile.	No	No
providerId	string	The identifier of the metadata provider, from the <code>id</code> of the <code>CMSVodData</code> element of the export.	No	Yes
xml	string: always "Profile"	The type of object	No	Yes

Example

```
{
  "_id" : "LYS034567891",
  "xml" : "Profile",
  "providerId" : "CMS4X",
  "features" : "HLS;HD;Encrypted",
  "id" : "LYS034567891"
}
```

4.11 Editorial (BTV) JSON object

Overview

This object represents an editorial (CMS content + programmes) most obviously useful for an aggregated showcase view.

All editorials are denormalized on locale and providerId, therefore to avoid duplicate objects for various languages and/or service providers locale and providerId are seen as mandatory fields.

For an abstract example of how the programme API data is structured, please take the following example for an episode of Friends :



The above shows an example where we have a single episode of friends scheduled for two separate showings, and a single catchup.

The output format of a single entity will be an aggregated view looking something along the lines of (note the example below has been simplified for ease of understanding) :

```
{
  "editorials": {
    "Title": "Friends S2:E1",
    "events": [
      {
        "period": {
          "start": 1370610000,
          "end": 1370611800
        }
      },
      {
        "period": {
          "start": 1370624400,
          "end": 1370626200
        }
      }
    ],
    "technicals": [
      {
        "CUStartDate": 1370610000,
        "CUEndDate": 1371229200
      }
    ]
  }
}
```

Fields

The request objects have the following available structure :

Name	Type	Description	Localized	Always available
_id	string	Internal identifier for the object.	No	Yes
c	string	Identifier for content	No	Yes

Name	Type	Description	Localized	Always available
e	string	Identifier for event	No	Yes
t	string	Identifier for technical	No	Yes
validTo	double	End date of the record (event or catchup ends)	No	Yes
locale	string	Region of locale based information	Yes	Yes
content	sub-object	Content (BTV) JSON object ^{p.76}	Yes	No
technical	sub-object	Content (BTV) JSON object ^{p.76}	Yes	No
event	sub-object	Programme (BTV) JSON object ^{p.80}	Yes	No

Example

Example Request :

http://<host>:<port>/metadata/delivery/btv/programmes?pretty=true&limit=1

```
{
  "editorials": [
    {
      "PrivateMetadata": "private",
      "Rating": 0,
      "Title": "x",
      "_id": "MCONT6242_901|CMS4",
      "duration": 0,
      "events": [
        {
          "Actors": [
            "Actors 1",
            "Actors 2"
          ],
          "Aspect": "Widescreen",
          "Audio": [
            "Eng-Standard",
            "Fra-VisualImpaired"
          ],
          "AudioMode": "THX",
          "Definition": "3D",
        }
      ]
    }
  ]
}
```

```

"Directors": [
  "Directore 1",
  "Directore 2"
],
"IsRecordable": false,
"Language": "eng",
"Producers": [
  "Producers 1",
  "Producers 2"
],
"PromoImages": [
  "http://url.ch/image.jpg",
  "http://url.ch/image2.jpg"
],
"Rating": 1,
"Studio": "Studio",
"Subtitles": [
  "Eng-Standard",
  "Fra-HearingImpaired"
],
"Title": "x",
"Year": 2011,
"_id": "6033_59x|CMS4",
"contentRef": "MCONT6242_901",
"eventId": "0",
"id": "6033_59x",
"isCatchUp": true,
"isStartOver": true,
"nls": {
  "Title": "550105010500"
},
"period": {
  "duration": 1800,
  "end": 1397863800.0,
  "providerId": "CMS4",
  "start": 1366326000.0
},
"productRefs": [
  "LYS000093451"
],
"providerId": "CMS4",
"serviceRef": "LYS000088968",
"title": "Programme Title Import 1 (Channel 1, EPG 1)"
}
],
"id": "MCONT6242_901",
"media": {},
"nls": {
  "Title": "550105010500"
},
"profileRef": "LYS000093541",

```

```
"providerId": "CMS4",
"technical": [
  {
    "Rating": 10,
    "Title": "x",
    "_id": "VCONT6242_092X|CMS4",
    "duration": 0,
    "id": "VCONT6242_092X",
    "mainContentRef": "MCONT6242_901",
    "media": {
      "fileName": "NagraPRMSD5.ts",
      "fileSize": "1",
      "format": "AV_ClearTS",
      "frameDuration": "0",
      "id": "PRODMED6242_098X"
    },
    "nls": {
      "Title": "550105010500"
    },
    "profileRef": "LYS000090001",
    "providerId": "CMS4",
    "title": "625742_Version_Content_002x"
  },
  {
    "CUEndDate": 1372633200.0,
    "CUStartDate": 1370041200.0,
    "Rating": 10,
    "Title": "x",
    "_id": "VCONT6242_NEW|CMS4",
    "duration": 0,
    "id": "VCONT6242_NEW",
    "mainContentRef": "MCONT6242_901",
    "media": {
      "fileName": "NagraPRMSD5.ts",
      "fileSize": "1",
      "format": "AV_ClearTS",
      "frameDuration": "0",
      "id": "PRODMED6242_NEW"
    },
    "nls": {
      "Title": "550105010500"
    },
    "profileRef": "LYS000090001",
    "providerId": "CMS4",
    "title": "625742_Version_Content_NEW"
  },
  {
    "Rating": 10,
    "Title": "x",
    "_id": "VCONT6242_901X|CMS4",
    "duration": 0,
```



```
"id": "VCONT6242_901X",
"mainContentRef": "MCONT6242_901",
"media": {
  "drmId": "20",
  "drmInstanceName": "DRM_PlayReady",
  "fileName": "CPS_Preloaded.ts",
  "fileSize": "1",
  "format": "AV_ClearTS",
  "frameDuration": "0",
  "id": "PRODMED6242_902X"
},
"nls": {
  "Title": "550105010500"
},
"providerId": "CMS4",
"title": "629942_Version_Content_001"
},
{
  "Rating": 10,
  "Title": "x",
  "_id": "VCONT6242_191X|CMS4",
  "duration": 0,
  "id": "VCONT6242_191X",
  "mainContentRef": "MCONT6242_901",
  "media": {
    "drmId": "30",
    "drmInstanceName": "DRM_PlayReady",
    "fileName": "CPS_Preloaded.ts",
    "fileSize": "1",
    "format": "AV_ClearTS",
    "frameDuration": "0",
    "id": "PRODMED6242_911X"
  },
  "nls": {
    "Title": "550105010500"
  },
  "providerId": "CMS4",
  "title": "677242_Version_Content_111x"
},
{
  "Rating": 10,
  "Title": "x",
  "_id": "VCONT6242_902X|CMS4",
  "duration": 0,
  "id": "VCONT6242_902X",
  "mainContentRef": "MCONT6242_901",
  "media": {
    "fileName": "NagraPRMSD5.ts",
    "fileSize": "1",
    "format": "AV_ClearTS",
    "frameDuration": "0",
```

```

    "id": "PRODMED6242_908X"
  },
  "nls": {
    "Title": "550105010500"
  },
  "providerId": "CMS4",
  "title": "6992742_Version_Content_002"
},
1,
"title": "6249972_Main_Content"
}
1,
"total_records": 2,
"version": "20130603114314"
}

```

4.12 Series (BTV) JSON object

Overview

This object represents a BTV series.

These objects are denormalized on locale and providerId, therefore to avoid duplicate objects for various languages and/or service providers locale and providerId are seen as mandatory fields.

Fields

Name	Type	Description	Localized	Always available
_id	string	Internal identifier for the object.	No	Yes
title	string	Unique identifier of the content (duplicated across locales though)	No	Yes
providerId	string	Provider related identifier.	No	Yes
Title	string	The name of the content	Yes	Yes
Synopsis	string	The synopsis of the content	Yes	No

Name	Type	Description	Localized	Always available
Description	string	The description of the content	Yes	No
Rating.code	string	Parental rating code (from CMS)	No	Yes
Rating.precedence	integer	Quantitative rating value	No	Yes
Rating.name	string	Localized name for the rating, e.g. "Adult", "Adulto"	Yes	Yes
IsRecordable	boolean	The content is recordable or not	No	No
Audio	list of string	A list of semi-colon separated locale-type pattern. Eng-Standard;Eng-Visual Impaired	No	No
Directors	list of string	List of directors	No	No
Producers	list of string	List of producers	No	No
Actors	list of string	List of actors	No	No
Year	integer	Year of production	No	No
Language	string	The original language of the content	No	No
AudioMode	string	The audio mode available (free text), e.g. Mono, 5.1	No	No
Aspect	string	The picture ratio, e.g. 16:9	No	No
Definition	string	The picture definition, e.g. HD, SD	No	No
Studio	string	The content owner	No	No

Name	Type	Description	Localized	Always available
PromolImages	list of string	A list of PromolImage urls	No	No
Categories	list of string	A list of categories	No	No
Countries	list of string	A list of countries	No	No
Subtitles	string	A list of "locale-type" mappings, i.e.	No	No
		Eng-Standard		
Copyright	string	Copyright	No	No
ShortTitle	string	The short name of the content	Yes	No
BestSales Index	integer	1..n available as Top n	No	No
Episode	string	Episode text string	Yes	No
Viewing Number	integer	Number of times a user can see the content sold once purchased	No	No
Copy Protections	string	A list of rules for controlling certain hardware products	No	No
ContentType	string	Free text	No	No
Total Downloads	integer	Total number of downloads of the content/episode	No	No
Scoring	integer	Score of the content/episode	No	No
Private Metadata	string	Generic field to pass directly data from customer to end user device	No	No

Name	Type	Description	Localized	Always available
Viewing Counter	integer	Number of times a piece of content has been viewed	No	No
DvbCategories	list of string	List of DVB genres and sub-genres	No	No
nls.Title	string	nls version of title to allow for correct sorting of items.		

Example

```
{
  "PrivateMetadata": "private",
  "Rating": 0,
  "Title": "x",
  "id": "CDNPS624201",
  "locale": "xx_xx",
  "nls": {
    "Title": "550105010500"
  },
  "providerId": "CMS4",
  "title": "CDN_Preloading_6242"
}
```

5 OFFER delivery APIs:

These APIs are used by client applications to obtain data about content promotions (e.g. buy one get one free). They return objects of multiple types, aggregated to make presenting the data easier.

5.1 /metadata/delivery/<provider>/offers/promotions

Note | Since MDS 1.2

The purpose of this API is to deliver content promotion metadata to clients. See the following page for object definition
 To use this API, send an HTTP GET request to the URL

provider is a mandatory part of the delivery service endpoint, narrowing down queries to a single service provider to allow for api clarity and security.

```
http://<host>:<port>/metadata/delivery/<provider>/offers/promotions
```

Example:

```
http://172.16.8.201:12123/metadata/delivery/CMS4X/offers/promotions
```

Query Parameters

Name	Type	Description	Required
filter	JSON object	A key/value pairing list. Where key is a fieldname, and value is the value the field should be. <code>filter={ "ImageType" : "MOVIE" }</code>	No
sort	list of lists (pairs)	A list of pairs, where a pair is a list containing a field name and a sort order. Where a sort order of 1 is Ascending, and a sort order of -1 is descending. <code>sort=[["title",1]]</code>	No
fields	list of strings	A list of fields names to return in the response. <code>fields=["title"]</code>	No

Name	Type	Description	Required
offset	integer	The number of records to skip. For pagination. <code>offset=0</code>	No
limit	integer	The number of records to return. For pagination. <code>limit=10</code>	No
cache	boolean	True to allow caching on CDN, false to prevent CDN caching. This just sets or unsets HTTP headers.	No
pretty	boolean	True to return human readable formatted JSON. False to return compact and efficient JSON.	No

Success Response

```
{
  "promotions": [
    {
      "billingPeriods": 3,
      "description": "3 months 15% discount for Gold subscribers during next quarter",
      "discountType": "percentage",
      "discountValue": 15.0,
      "enabled": false,
      "endAvailability": 1393631999.0,
      "id": "Promo1",
      "scope": {
        "productScope": {
          "productID": "BBE740068128P"
        }
      },
      "serviceProvider": "CMS4X",
      "startAvailability": 1385856000.0,
      "title": "Gold subscription promotion"
    },
    {
      "billingPeriods": 2,
      "description": "1 month 50% discount for Gold subscribers during december",
      "discountType": "percentage",
      "discountValue": 50.0,
      "enabled": false,
      "endAvailability": 1390953599.0,
      "id": "Promo3",
      "scope": {
        "contentScope": {
          "actor": "Sylvester Stallone"
        }
      }
    }
  ]
}
```

```

    },
    "productType": "multiple"
  },
  "serviceProvider": "CMS4X",
  "startAvailability": 1385856000.0,
  "title": "Gold subscription Promo3"
},
{
  "billingPeriods": 3,
  "description": "3 months 15% discount for Gold subscribers during October",
  "discountType": "percentage",
  "discountValue": 15.0,
  "enabled": false,
  "endAvailability": 1383263999.0,
  "id": "promo5",
  "scope": {
    "contentScope": [
      {
        "actor": "Bruce Willis"
      },
      {
        "actor": "Will Smith"
      }
    ],
    "productType": "multiple"
  },
  "serviceProvider": "CMS4X",
  "startAvailability": 1380585600.0,
  "title": "Gold subscription promotion"
}
],
"total_records": 3
}

```

5.2 Promotion JSON object *Updated*

Note | Since MDS 1.2

This object represents a product promotion (e.g. buy one get one free, 15% off, etc)

Promotion

Name	Type	Description	Localized	Always available
<code>_id</code>	string	Internal identifier for the object.	No	Yes

Name	Type	Description	Localized	Always available
publicId	string	Public identifier for the object	No	Yes
title	string	Title of the Promotion object.	No	Yes
description	string	Description of the promotion	No	No
service Provider	string	Service Provider attached to the Promotion object	No	Yes
start Availability	epoch time	Start availability date of the promotion	No	No
end Availability	epoch time	End availability date of the promotion	No	No
enabled	boolean	Whether or not the promotion is enabled (active)	No	No
discount Type	string	The discount type of the promotion. (percentage/finalPrice)	No	Yes
discount Value	float	The discount value of this promotion	No	Yes
billing Periods	long	The number of billing periods associated to this promotion.	No	Yes
scope	sub-object (see below)	The applicability of this promotion.	No	Yes

Content Scope

Name	Type	Description	Localized	Always available (in context of content scope)
contentScope	key value properties	List of key-value properties.	No	Yes

Name	Type	Description	Localized	Always available (in context of content scope)
productType	string	Type of product to which the promotion applies, e.g. single, multiple.	No	Yes

Product Scope

Name	Type	Description	Localized	Always available (in context of product Scope)
productScope	key value properties	List of key-value properties.	No	Yes

Account Scope

Name	Type	Description	Localized	Always available (in context of product Scope)
accountScope	key value properties	List of key-value properties.	No	Yes

Subscriber Profile

Name	Type	Description	Localized	Always available (in context of product Scope)
subscriber Profile	key value properties	List of key-value properties.	No	Yes

6 How version control affects delivery APIs

Danger!

Version control does not apply to any `/offers/*` api's because of how the data is updated. These API's are therefore versionless, and may change from one version to the next.

The ingest versioning process has implications on how the public API (delivery APIs) can be used.

In the simplest case the version can be ignored (omitted from request parameters), but it is recommended that you latch onto a version to allow your client to be made aware of version changes, and react appropriately.

We will walk through a simple use case showing how versioning changes the behavior of the public API.

Initial state

When no data has yet been ingested, both the direct version API and version number in other responses will return no version :

```
http://localhost:12123/metadata/delivery/vod/version
```

```
{"version":"No committed version found"}
```

```
http://localhost:12123/metadata/delivery/vod/series
```

```
{"total_records":0,"series":[],"version":null}
```

After an ingest

When any ingest has been successfully applied and committed, the direct version API's will begin to return an actual version number :

```
http://localhost:12123/metadata/delivery/vod/version
```

```
{"version":"20130603134426"}
```

and any responses will contain the version number with the response json :

```
http://localhost:12123/metadata/delivery/vod/nodes?limit=1&pretty=true
```

```
{  
  "nodes": [  
    {  
      "BarkerChannelRef": "TEST",
```

```
...
  "title": "Destacados",
}
],
"total_records": 136,
"version": "20130603134426"
}
```

Latching onto a version

We can tie our client to a specific version of the data by specifying it as a request parameter :

```
http://localhost:12123/metadata/delivery/vod/nodes?
limit=1&pretty=true&version="20130603134426"
```

```
{
  "nodes": [
    {
      "BarkerChannelRef": "TEST",
      ...
      "title": "Destacados",
    }
  ],
  "total_records": 136,
  "version": "20130603134426"
}
```

Tip

It is highly recommended that you specify a version in all of your requests, as this will allow intermediate proxies to better cache the request/response.

Further ingests

When another ingest is applied and committed it will create a new version of the data.

We can see this through both the version API and any non-latched request :

```
http://localhost:12123/metadata/delivery/vod/version
```

```
{"version": "20130603135154"}
```

```
http://localhost:12123/metadata/delivery/vod/nodes?limit=1&pretty=true
```

```
{
  "nodes": [
```

```
{
  "BarkerChannelRef": "TEST",
  ...
  "title": "Destacados",
}
],
"total_records": 136,
"version": "20130603135154"
}
```

If we had latched on our request, we would have received an error from MDS telling us that our version is stale, and to use the latest (specified) :

```
http://localhost:12123/metadata/delivery/vod/nodes?
limit=1&pretty=true&version="20130603134426"

{
  "latest": "20130603135154",
  "msg": "Invalid version of data requested, please use latest",
  "requested": "20130603134426"
}
```

The purpose of this is to alert the client to stale data, allowing them to clear any locale caches, and re-request any other data.

Tip

We can also use the version API itself to check whether data has changed, rather than making heavier requests (such as filling an EPG) to do the same.

7 Search APIs

These APIs are used by client applications to obtain data about broadcast and on-demand content.

They return references to objects that can be used with the other APIs, in order to retrieve more detailed information about the products.

7.1 /metadata/solr/<provider>/suggest

The purpose of this API is to allow clients to identify potential search terms that can be used with the /metadata/solr/<provider>/search API.

Suggestions for potential search terms are limited to:

editorial: title, actor

programme: title, actor

Results can be filtered by:

scope: EPG/VOD

domain: "deviceType|", "|region", "deviceType|region"

descendantsOf: <node>

A domain is a deviceType and Region concatenated by a "|" like "ipad|France". Where all deviceTypes are appropriate, the deviceType can be left blank. Equally where all regions are appropriate, the region can be left blank.

e.g. ipad in all regions "ipad|" and all devices in a region "|France"

The descendantsOf field allows you to restrict the search query to the descendants of a VOD catalogue node (passed by node ID).

HTTP Arguments

Name	Type	Description	Required
q	string	Performs a full text search sort.	Yes
fq	string	Lucene filter query. Filters the search results.	No

Examples (To be confirmed)

To use this API, send an HTTP GET request to the URL.

The API takes the PROVIDER ID of the provider of your metadata. In the example below, the provider ID is "CMS4X"

Query parameter performs a "start of word" match.

The following query parameters would match "Star Wars", because of the "start of word" matching:

```
/metadata/solr/CMS4X/suggest?q=sta wa
```

To query for specifically 'titles' of content:

```
/metadata/solr/CMS4X/suggest?q="sta wa"&fq=entity:content
```

To query for specifically 'actors' of content (to find "tom cruise"):

```
/metadata/solr/CMS4X/suggest?q="t cru"&fq=entity:actors
```

To filter the results such that only VOD asset data is suggested:

```
/metadata/solr/CMS4X/suggest?q=sta wa&fq=scope:vod
```

To filter the results such that only VOD asset data is suggested and only suggestions suitable for the calling device and region are returned:

```
/metadata/solr/CMS4X/suggest?q=sta wa&fq=scope:vod&fq=domain:"ipad|France"
```

To filter the results such that only VOD asset data is suggested and only suggestions suitable for the calling device are returned:

```
/metadata/solr/CMS4X/suggest?q=sta wa&fq=scope:vod&fq=domain:"ipad|"
```

To filter the results such that only VOD asset data is suggested and only suggestions suitable for the calling devices are returned:

```
/metadata/solr/CMS4X/suggest?q=sta wa&fq=scope:vod&fq=domain:("ipad|" OR "cisco|")
```

To search for results within a specific catalogue sub-tree, add a filter query on the "descendantsOf" field. This only returns results within the sub-tree headed by the node reference ID passed in (in this case "Action_Movies").

```
/metadata/solr/CMS4X/suggest?q=sta wa&fq=scope:vod&fq=descendantsOf:Action_Movies
```

Danger!

The use of "descendantsOf" and "domain" together, may bring unexpected results. It's possible for an asset to be a descendant of "Action_Movies" and be in the domain "ipad|". But it's also possible that the asset under "Action_Movies" is not suitable for an ipad. In such a case, the ipad version of this asset would

be stored under a different catalogue node. The asset would still be returned in the results because it's available in "Action_Movies" AND it's available as an ipad asset.

7.2 SOLR Search *Updated*

The purpose of this API is to allow clients to perform a full text search, in order to find reference ID's to metadata objects, that can be used with the other Metadata APIs to find more detailed information.

Full Text Searching

The full text search runs against the following fields:

editorial: title, description, synopsis, actors

programme: title, description, synopsis, actors

Filtering

Results can further be filtered by:

editorial: year, rating, category (genre)

programme: year, service, rating

scope: btw/vod

domain: "deviceType|", "|region", "deviceType|region"

descendantsOf: <node>

A domain is a deviceType and Region concatenated by a "|" like "ipad|France". Where all deviceTypes are appropriate, the deviceType can be left blank. Equally where all regions are appropriate, the region can be left blank. e.g. ipad in all regions "ipad|" and all devices in a region "|France"

The descendantsOf field allows you to restrict the search query to the descendants of a VOD catalogue node (passed by node ID).

HTTP Arguments

Common query parameters

Metadata server uses a Lucene based SOLR search engine. We support most common query parameters for Solr 4.3.0

<http://wiki.apache.org/solr/CommonQueryParameters>

Supported Common Query Parameters

Name	Type	Description	RequiredDefaults
q	string	Lucene query string. Performs a full text search sort.	Yes

Name	Type	Description	Required	Defaults
sort	string	Sort order. Defaults to 'score desc'. The 'score' field returns the 'best match' records first, which is likely the best sort order for search	No	score desc
start	integer	The number of records to skip. Used for pagination. See also 'offset'	No	0
rows	integer	The number of records to return. Used for pagination. See also 'limit'	No	10
fq	string	Lucene filter query. Filters the search results.	No	
fl	string	Lucene field lists. A list of fields to return.	No	
defType	string	We only support the values 'lucene', 'dismax' and 'edismax'. Defaults to 'edismax'. Determines the Query Parser. See below for the options.	No	edismax
wt	string	Output format, 'json', 'xml' and others available. See Solr documentation online.	No	json

EDisMax query parameters

By default we support the Extended DisMax Query Parser, and most of it's associated query parameters.

Please read the SOLR documentation to understand what these parameters below mean: <http://wiki.apache.org/solr/ExtendedDisMax>

<http://wiki.apache.org/solr/ExtendedDisMax>

Name	Type	Description	Required	Defaults
q.alt	string	Alternate Query string	No	
qf	string	Query Fields	No	title description actors synopsis
mm	string	Minimum Match	No	

Name	Type	Description	RequiredDefaults
qs	string	Query Stop	No
pf	string	Phrase Fields	No
ps	string	Phrase Stop	No
pf2	string	Phrase Bigram Fields	No
ps2	string	Phrase Bigram Slop	No
pf3	string	Phrase Trigram Fields	No
ps3	string	Phrase Trigram Slop	No
tie	string	Tie Breaker	No
bq	string	Boost Query	No
bf	string	Boost Function (additive)	No
boost	string	Boost Function (multiplicative)	No
uf	string	User Fields	No

We also support the standard Lucene query parser and the DisMax Query Parser and most of their associated query parameters.

To use the DisMax Query Parser the defType query parameter should be set to 'dismax' e.g. defType=dismax

To use the Lucene Query Parser the defType query parameter should be set to 'lucene' e.g. defType=lucene

Please read the SOLR documentation to understand what parameters exist for DisMax query parser: <http://wiki.apache.org/solr/DisMaxQParserPlugin>

Please read the SOLR documentation to understand what parameters exist for the basic Solr/Lucene query parser: <http://wiki.apache.org/solr/SolrQuerySyntax>

Facets

We support simple faceting of the search results.

(Facets are aggregation counts. i.e. a facet field of "category" shows how many of the returned assets are Comedy/Action/Drama etc.. And multiple facet fields can be specified.)

Please read the SOLR documentation to understand what these parameters mean: <http://wiki.apache.org/solr/SimpleFacetParameters>

Supported Facet Query Parameters

Name	Type	Description	Required
facet	boolean	Turn facets on and off using true/false	No
facet.query	string	Allows facets to be built from a query	No
facet.field	string	The fields to provide facets on	No
facet.prefix	string	Limits to facets with this prefix	No
facet.sort	string	Determines if the facets should be sorted by count, or returned query order	No
facet.limit	string	Specific the maximum number of facets to return for each facet field. Used for pagination as well.	No
facet.offset	string	Specify an offset for use with paginating facets when there are too many to return in one go.	No
facet.mincount	string	Specify the minimum facet count value that you want to accept in the results.	No

TODO: Supported standard Metadata Query parameters:

Name	Type	Description	Required
offset	string	The number of records to skip. Used for pagination. Maps to SOLR 'start' field.	No
limit	string	The number of records to return. Used for pagination. Maps to SOLR 'rows' field.	No
fields	string	List of fields to return. Maps to SOLR 'fl' field.	No

Examples (To be confirmed)

To use this API, send an HTTP GET request to the URL.

The API takes the PROVIDER ID of the provider of your metadata. In the example below, the provider ID is "CMS4X"

Query parameter performs "start of word" matches on the titles, actors and directors only. And a full text search on all the other fields.

The following query parameters would match "Star Wars", because of the "start of word" matching:

```
/metadata/solr/CMS4X/search?q=sta wa
```

To query for specifically 'titles' of content:

```
/metadata/solr/CMS4X/search?q=title:"sta wa"
```

To query for specifically resources that have the actor "tom cruise":

```
/metadata/solr/CMS4X/search?q=toy&fq=actors:"tom cruise"
```

To query for specifically resource that are by directors "stephen spielberg":

```
/metadata/solr/CMS4X/search?q=saving private&fq=director:"stephen spielberg"
```

To query specifically the description field and title at the same time:

```
/metadata/solr/CMS4X/search?q=description:"cowboy" description:"spaceman" title:"toy"&fq=category:"comedy"
```

To filter the results such that only VOD asset data is returned:

```
/metadata/solr/CMS4X/search?q=sta wa&fq=scope:vod
```

To filter the results such that only VOD and BTV asset data is returned:

```
/metadata/solr/CMS4X/search?q=sta wa&fq=scope:(vod OR btv)
```

To filter the results such that only VOD asset data is returned and only suitable for the calling device and region:

```
/metadata/solr/CMS4X/search?q=sta wa&fq=scope:vod&fq=domain:"ipad|France"
```

To filter the results such that only VOD asset data is returned and only suitable for the calling device:

```
/metadata/solr/CMS4X/search?q=sta wa&fq=scope:vod&fq=domain:"ipad|"
```

To filter the results such that only VOD asset data is returned and only suitable for a list of calling devices:

```
/metadata/solr/CMS4X/search?q=sta wa&fq=scope:vod&fq=domain:("ipad|" OR "cisco|")
```

To search for results within a specific catalogue sub-tree, add a filter query on the "descendantsOf" field. This only returns results within the sub-tree headed by the node reference ID passed in (in this case "Action_Movies").

```
/metadata/solr/CMS4X/search?q=sta wa&fq=scope:vod&fq=descendantsOf:Action_Movies
```

Danger!

The use of "descendantsOf" and "domain" together, may bring unexpected results. It's possible for an asset to be a descendant of "Action_Movies" and be in the domain "ipad|". But it's also possible that the asset under "Action_Movies" is not suitable for an ipad. In such a case, the ipad version of this asset would be stored under a different catalogue node. The asset would still be returned in the results because it's available in "Action_Movies" AND it's available as an ipad asset.